

POWERING SYNERGY

ANNUAL REGISTRATION STATEMENT /
ANNUAL REPORT 2022 (FORM 56-1 ONE REPORT)



RESPONDING
Renewable Energy



POWERING SYNERGY



SUCCEEDING
Corporate



EMPOWERING
the Next Generation





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Vision Mission

To be a leader in integrated renewable energy business, electrical equipment, and power system, with cutting-edge technology and innovation, to develop a strong and sustainable infrastructure. As well as, to be a global leader in hemp and cannabis business to improve quality of life and wellness.



Renewable Energy

Construct renewable energy power plants with high standards and efficiency by prioritizing society, local community and environment.



Hemp and Cannabis

Produce hemp/cannabis in accordance with GAP and GMP standards to extend into wide range of products that enhance quality of life, for maximum benefits to customers.



Sales

Procure and deliver high quality power systems, energy saving products, hemp and cannabis products, distribution channels, as well as, render the services to fulfill customers' demand.



Technology

Develop IT system. Adopt cutting-edge technology and innovation to increase management, production, and services efficiency, as well as, to developing a variety of products and services to fulfill business partners' demand.



Returns

Create highest return for the shareholders and stakeholders' returns in a balanced and fair manner.



People Management

Develop employees' potential and broaden their knowledge and skills to extensive level in line with the Company's core competencies. All employees will be treated thoroughly and fairly under human rights principles.



Management Framework

Organize business structure and manage according to good corporate governance principles and sustainable development, with economic, social, and environmental responsibilities.





Corporate Culture

We GROWTH together

G

Goal

Determination
to achieve
goals

R

Reliability

Be reliable and
professional
at work

O

Ownership

Caring
and Unity

W

Wisdom Learning

Learning
constantly
causing
intelligence
and adaptation

T

Technology and Innovation

Exposure to
technology and
extending
innovation

H

Honesty and Governance

Honest,
transparent,
and
dedicated to
responsibilities



Renewable Energy for Sustainability

Produce and distribute renewable energy business both domestically and internationally, comprising solar, wind, and biomass energy to reduce greenhouse gas emissions and raise the level of solving climate change problems.



Comprehensive Engineering and Turnkey

Provide comprehensive engineering, maintenance, procurement, installation, and construction services for renewable energy power plants, power stations, transmission lines, grounding system, submarine cable, microgrid system, energy storage system, and related intelligent device systems.



High-voltage Equipment

Produce, procure, and sell equipment for electrical systems, power stations, including medium to high-voltage transmission lines rated 115kV, grounding equipment, equipment for power transmission line system, lightning products, and a variety of tools and personal protective equipment, as well as, energy-saving and alternative energy products, both domestically and internationally.



Ecosystem Business Platform & Innovation

Focus on developing an ecosystem business platform that incorporates new technologies to create business value and providing the Company and business partners opportunities to expand beyond their boundaries in order to enhance the potential of expanding customer base. Additionally, there are also a supply of products and services to fulfill the needs of each party, to consulting services on suitable renewable energy, as well as, exploring new channels to strengthen the business to become sustainable leader in energy business.



Hemp and Cannabis

Increase opportunities and create value to business to become New S-Curve by leveraging potential of existing projects with plans of cultivating hemp and cannabis in a greenhouse system for highest quality control. Focus on operating a professional hemp and cannabis business for Thai people's health.



Business Overview

Gunkul Engineering Public Company Limited (the “Company”) or GUNKUL engages in renewable energy, integrated electrical system and equipment. The Company is now expanding into hemp and cannabis businesses using cutting-edge technology and innovation to improve the quality of life, a better health, and develop a strong and sustainable infrastructure.

Throughout the past, the Company has been committed to sustainable its energy business, with balancing on the environment, society, and stakeholders, under the principle of good corporate governance. The Company aims for a Net-Zero-Carbon society to become one of the leaders in renewable energy, innovation, and digital energy platform.

**600 megawatts
in 4 countries**



Objectives, Goals and Long-Term Strategies (3-5 years)

Aiming to build a strong operational foundation along with the development of the “New S-Curve” for sustainable growth and long-term goal achievement.



Create value to the business by expanding into high-value businesses.



Apply technology and create innovations in all dimensions to support business expansion, increase competitiveness and reach more diverse customer groups as well as driving the organization and society towards the New Ecosystem of the energy system.



Diversification of investment in order to complete range of products to fulfil the needs of a wider group of customers.



Collaborate with business partners or Mergers and Acquisitions (M&A) both domestically and internationally to accelerate growth and promptly align with the industry and the global trend.



Encourage the independent growth of each business group by promoting spin off strategy for efficient management and increase ability to deliver solid and long-term sustainable growth.

The Company continues to expand and continuously grow to meet the needs of consumers in the renewable energy business with solar power plants while expanding to wind power plants; investing in foreign countries such as Japan, Malaysia, and Vietnam; expanding from medium-voltage to high-voltage power plants and diversifying its customer base to include the private sector (Private PPA). Additionally, digital disruption plays a significant role in motivating the business to develop innovations and integrated energy digital platforms that contribute to the country’s infrastructure development and energy sustainability. In 2021, the Company began expanding its business into hemp and cannabis businesses, which represents an opportunity to add value and prepare for the industry’s New S-Curve. This expansion includes a comprehensive hemp and cannabis business plan for the Thai people’s health, which is a critical foundation for living.

Currently, the Company has a total capacity of 600 megawatts in 4 countries and aims to increase its capacity to at least 1,000 megawatts in Asian countries by 2023.



Dividend Policy

The Company has a policy to pay dividend at a rate not less than 40 percent of net profit according to the Company’s separated financial statements, after the deduction of corporate income tax, legal reserve, and all other reserves. However, the Company may pay dividend at a rate less than the rate specified above if necessary, depending on necessity for working capital in operation, business expansion plan, and other factors related to the management of the Company.



Key Financial Highlights

Financial Position

Consolidated Financial Statements (Unit : Million Baht)	December 31, 2020	December 31, 2021	December 31, 2022
Total assets	46,032.16	42,485.36	32,331.46
Total liabilities	33,556.84	29,202.14	18,191.72
Total equity	12,475.31	13,283.22	14,139.74

Statement of Comprehensive Income

Consolidated Financial Statements (Unit : Million Baht)	2020	2021	2022
Total revenue ¹⁾	10,947.46	9,768.42	9,515.10
EBITDA	5,809.93	4,951.87	5,492.33
Profit (Loss) for the year	3,425.29	2,251.52	3,014.38
Profit (Loss) from normal operation	1,110.95	1,812.29	1,017.01
Profit (Loss) of the parent company	3,412.34	2,229.27	3,010.52

Note : ¹⁾ Total revenue from normal operation accounted for 8,649.34 million baht in 2020, 9,418.16 million baht in 2021, and 7,505.69 million baht in 2022, respectively.

Revenue Proportion

Consolidated Financial Statements (Unit : Million Baht)	2020	2021	2022
Revenue from sale	1,495.88	1,474.97	1,829.22
Revenue from sale of electricity	4,093.36	4,760.50	3,448.85
Revenue from rendering of services and construction services	2,146.63	2,112.60	1,776.25
Revenue from sale of assets under finance lease	913.48	970.09	451.37
Revenue from extra profit ¹⁾	2,209.78	377.40	1,948.75
Other income	88.33	72.86	60.66
Total revenue	10,947.46	9,768.42	9,515.10

Note : ¹⁾ Extra profit means gain on change in fair value of derivatives, gain on bargain purchase, gain on sale of investment in subsidiaries, and gain on change in ownership interest in subsidiaries to joint ventures.

Financial Ratio

	Unit	2020 ¹⁾	2021 ¹⁾	2022 ¹⁾
Liquidity ratio	Times	0.91	0.84	1.50
Gross Profit Margin	%	35.16	40.19	37.03
Operating Profit Margin	%	25.40	34.55	43.93
Net Profit Margin	%	13.60	22.82	31.68
Net Profit Margin from Normal Operation	%	24.11	29.75	12.17
Return on Equity	%	9.53	16.95	21.32
Return on Assets	%	2.58	5.30	9.32
Debt to Equity Ratio	Times	2.69	2.20	1.29

Note : * Exclude extra profit means gain on net foreign exchange, gain on change in fair value of derivatives, gain on bargain purchase, gain on sale of investment in subsidiaries, gain on change in ownership interest in subsidiaries to joint ventures, and other income.

** Exclude the portion of long-term loans due within 1 year and the portion of debentures due within 1 year.

Dividend Payment

Year	2020	2021		2022	
Performance Period	1 Jan. - 31 Dec.	1 Jan. - 30 Jun. (Interim)	1 Jan. - 31 Dec. and Retained Earnings	1 Jan. - 30 Sep. (Interim)	1 Jan. - 31 Dec. and Retained Earnings
Basic earnings per share (in Baht)	0.25	0.18	0.25	0.09	0.14
- Separate Financial Statements					
Dividend payment (Baht per share)	0.182	0.06	0.12	0.06	0.06 ¹⁾
Total	0.182	0.180		0.12 ¹⁾	
Dividend payment ratio (%)	72.82	73.28		86.16	
- Separate Financial Statements					

Note : ¹⁾ The specified figures are subject to change due to the approval of the 2023 Annual General Meeting of Shareholders on April 21, 2023.

Financial Highlights 2022

(Unit : Million Baht)



33,220.67

Market Cap
(March 16, 2022)



32,331.46

Total Assets



9,515.10

Total Revenue



5,492.33

EBITDA

2022 Key Performance



May

- The Company paid cash dividend for the year ended December 31, 2021 at the rate of 0.12 baht per share on May 23, 2022. The total cash dividend payment was no more than 1,068,000,000.00 baht.
- G.K. Bio Extraction Company Limited, the Company's subsidiary, received a license to produce (non-planting) narcotics of category 5, specifically hemp, or a license to extract important substances from hemp plants, at the place namely "Hemp Extraction Plant", Klong 11", for commercial or industrial purposes.
- The Company signed a corporation agreement on investment and development of renewable energy projects and established a joint venture company with Gulf Renewable Energy Company Limited, a subsidiary of Gulf Energy Development Public Company Limited (GULF), to study, develop, and jointly invest in solar rooftop projects, by holding equal shares at 50%.



July

- The Company offered and issued ordinary shares of Gulf Gunkul Corporation Company Limited totaling 11,170,000 shares by waiving the rights to subscribe for ordinary shares and let Gulf Renewable Energy Company Limited, as a strategic partner, to purchase 50% of newly issued ordinary shares with investment value of 5,000,000,000.00 baht. Another 50% of shares is held by the Company.



December

- The Company paid interim dividend for the 9-month performance from January 1, 2022 - September 30, 2022 on December 8, 2022. Such interim dividend was paid in cash at the rate of 0.06 baht per share. The total cash dividend payment was no more than 535,000,000.00 baht.

Awards and Achievements

1

Selected as one of the 2022 Thailand Sustainability Investment (THSI)

by the Stock Exchange of Thailand for the second consecutive year from sustainability assessment covering economic, social, and environmental dimensions. This demonstrates that GUNKUL has conducted an organizational development towards sustainability with the emphasis on maintaining a balance between environmental preservation, social responsibility, and operational management in compliant with corporate governance principles (Environmental, Social and Governance : ESG)



2

Received Corporate Governance Report Assessment for the year 2022

from Thai Institute of Directors Association (Thai IOD) to be a listed company with an “Excellent” rating; an average score of 97 percent and the scores in all categories are rated excellent for the sixth consecutive year. Average scores of each category can be summarized as follows :



Comparison of Corporate Governance Scorecard for the past 3 years (%)

Category	2020	2021	2022
1 Rights of shareholders	100	100	100
2 Equitable Treatment of Shareholders	95	98	98
3 Role of Stakeholders	94	98	98
4 Disclosure and Transparency	99	99	99
5 Responsibilities of the Board	93	95	95
Average Score	95	97	97

3

Selected as Best Emerging Women COO in Sustainable Energy, GUNKUL’s Chief Operating Officer - Strategic Investment & Sustainable Energy Business, Ms. Naruechon Dhumrongpiyawut, has been named by the Global Economics to be one of the Best Emerging Women COOs in Sustainable Energy for the year 2022.

4

Received the 2022 Role Model Organization Award in Human Rights from the Department of Rights and Liberties Protection, Ministry of Justice, to become a role model for other organization in operating business with respect for human rights. Gunkul Engineering PCL has awarded good for large business sector category and G.K. Assembly Co., Ltd. has received consolation award for the medium-sized business sector.

5

Received the 2022 Role Model Sustainable Organization in Thai Capital Market, categorized in the Empowerment of Persons with Disabilities, the “Rising Star” award, from the Securities and Exchange Commission in cooperation with the Ministry of Labor, the Department of Skill Development, the Department of Employment, the Department for Empowerment of Persons with disabilities, the Thai Listed Companies Association, and Disabilities Thailand.

6

Received the 2022 Sustainability Disclosure Recognition for outstanding efforts towards sustainability disclosure and reporting on SDG target from Thaipat Institute.

7

Received the 2022 Outstanding Enterprise Award in Labor Relations and Labor Welfare, which the Company and subsidiaries, consisting of Gunkul Engineering PCL, G.K. Assembly Co., Ltd., Gunkul Power Development Co., Ltd., and Future Electrical Control Co., Ltd. received Outstanding Enterprise in labor relations and labor welfare for the year 2022 from the Department of Labor Protection and Welfare, Ministry of Labor, for the second consecutive year.

8

Received the 2021 ASEAN Asset Class Publicly Listed Companies from evaluation of ASEAN Corporate Governance Scorecard, which is an award given to companies that score 97.50 or more. There were 42 Thai listed companies receiving this award from a total of 135 companies, reflecting sustainable business operations under corporate governance principles that is in line with international standards.

Message from the Chairman of the Board of Directors

Dear our Shareholders,

In the year 2022, all over the world have been confronted with the economic effects of the great power conflicts and the COVID-19 pandemic, including the highest increase in household debt and inflation ever recorded, as well as the risks of security, food, and energy. However, the Company was slightly impacted and was able to conduct all of business in accordance with its objectives.

66

On behalf of the Board of Directors, I firmly believe that the Company is ready to step into the new decade with cooperation, commitment, and dedication.

99

In addition, the Company is prioritizing the solution to climate change through its renewable energy business, such as solar and wind power, to drive the Company forward as a sustainable growth organization by considering Environmental, Social, and Governance (ESG) factors along with the balanced business structure management, as the energy sector is the

key to mitigating climate change and leading to a low carbon society (Low Carbon Business).

Nevertheless, the Company has directions and strategic plans by building a fully integrated energy business through the use of technology and energy innovation, creating a trading platform, and providing customer service to thoroughly serve customers, including preparation in various areas to support the growth business plans in the future.

Finally, on behalf of the Board of Directors, I firmly believe that the Company is ready to step into the new decade with cooperation, commitment, and dedication in performing the duties of the Board of Directors, executives, and employees to move forward according to the directions and organizational goals for producing fair maximum benefits for shareholders and stakeholders in all groups along with taking care of the environment and creating value for the sustainable growth organization.

Dr. Gunkul Dhumrongpiyawut
Chairman of the Board of Directors





Message from Chief Executive Officer

Dear our Shareholders,
Gunkul Engineering Public Company Limited

For over 12 years, Gunkul Engineering Public Company Limited has been stepping into the clean energy business in the midst of change and fluctuation all over the world, the challenges of global economy, the higher energy prices, and climate change crisis. However, **the Company insists and believes in the “GROWTH”, corporate culture to strive for business development to grow continuously.**

As mentioned above, 2022 is a very important year for the Company, which is committed and dedicated to be a leader in the renewable energy business and equipment and integrated electrical systems. With the cutting-edge technology and innovation, the Company earned the profit share of more than 3,010.51 million baht or an increase of 35.04% in 2022 from the sales of electrical equipment such as gas switch, and surge arrester, etc. In addition, the Company also gained the profit share from investments in associates and joint ventures with domestic and foreign partners such as SCB10X, Origin, JMart, Singer, Pruksa, Gulf, and others, was more than 510.64 million baht. This is to create the energy technology business ecosystem growth by collaborating, growing and combining strengths to build energy sustainability and develop new technologies for customers to choose and have more energy options. Thus, clean energy can be more widely available and used in the future.

The Company is also determined to participate in the development of Thailand's energy infrastructure to strengthen and grow sustainably through investment in electrical equipment product development to meet and cover the needs of customer groups broadly along with business development and energy innovation in accordance with Thailand's policies and commitments at the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26) that Thailand will achieve carbon neutrality in 2050. This includes the Company's participation in the bidding for a solar and wind power project under the Power Development Plan (PDP), which has announced the purchase of approximately 5,200 megawatts of renewable energy in line with the Company's goal of increasing

production capacity to 1,000 megawatts by 2023. This year, the Company is also leveraging its existing corporate resources to expand its investment into a complete hemp and cannabis business group, from inflorescences to CBD extracts for medical use.

Based on the above key factors, 2023 is the year when all sectors must work together and focus on building energy security while protecting the environment and reducing greenhouse gas emissions to achieve carbon neutrality goals, of which the energy sector accounts for 70%. For this reason, it is an opportunity and an important step for “GUNKUL” to become a leader and grow with the upcoming trends in 2023, both in the public and private sectors under 1. Renewable Energy Power Plant Business. 2. Energy and Technology Business 3. Electrical Equipment Manufacturing and Sales Business 4. Engineering, Procurement and Construction (EPC) Business, which respond to the Power Development Plan (PDP), including the expansion of infrastructure development of other countries such as the development of the Eastern Economic Corridor (EEC), high-speed railway projects, power system development plan, communication system, and private industrial expansion, etc., which the Company views as an important opportunity for sustainable growth and progress in the next 3-5 years.

Throughout the year 2022, on behalf of the Board of Directors, executives and employees of Gunkul Engineering Public Company Limited, the Company is extremely honored and grateful to the shareholders, financial institutions, business partners, customers, government agencies, community enterprises, and all stakeholders who have placed their trust and cooperation to drive the Company's business forward and grow steadily. In order to create maximum benefits for all stakeholders in the future, the Company adhere to the principles of good management, good corporate governance, being a transparent organization, and being aware of its responsibility to the economy, society, and environment.

(Dr. Somboon Aueatchasai)
Chief Executive Officer



Board of Directors

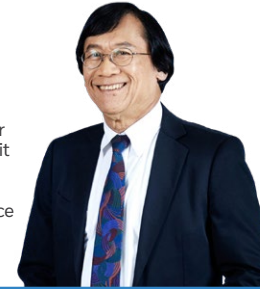
**Dr. Gunkul
Dhumrongpiyawut**

- Chairman of the Board of Directors (Non-Executive Director)



**Dr. Chongrak
Rarueysong**

- Director
- Independent Director
- Chairman of the Audit Committee
- Member of the Good Corporate Governance and Sustainable Development Committee



**Associate Professor
Dr. Panarat Panmanee**

- Director
- Independent Director
- Member of the Audit Committee



**Gen. Tarnchaiyan
Srisuwan**

- Director
- Independent Director



**Mr. Tarakorn
Angpubate**

- Director
- Independent Director
- Member of the Audit Committee
- Chairman of the Risk Management Committee



**Ms. Sopacha
Dhumrongpiyawut**

- Director
- Chairman of the Executive Committee
- Member of the Risk Management Committee



**Dr. Somboon
Aueatchasai**

- Director
- Member of the Executive Committee
- Secretary to the Board of Directors
- Chief Executive Officer (CEO)



**Ms. Naruechon
Dhumrongpiyawut**

- Director
- Member of the Executive Committee
- Chief Operating Officer, Strategic Investment and Sustainable Energy Business



**Mrs. Areewan
Chaloemdan**

- Director
- Member of the Executive Committee
- Chief Operating Officer, High Voltage Equipment Business



**Mr. Chaloepon
Sricharoen**

- Director
- Member of the Executive Committee
- Vice President, Sales and Marketing



Remark : Ms. Chantira Jongjamareeseethong is the Company Secretary



Audit Committee

Dr. Chongrak Rarueysong¹⁾

- Chairman of the Audit Committee (Independent Director)



Associate Professor Dr. Panarat Panmane¹⁾²⁾³⁾

- Member of the Audit Committee (Independent Director)



Mr. Tarakorn Angpubate¹⁾

- Member of the Audit Committee (Independent Director)



Remark : ¹⁾ An Independent Director with knowledge and experience in reviewing the Company's financial statement
²⁾ An Independent Director with a degree in Accounting
³⁾ A female Independent Director with Mr. Tanetsiri Farkmitr as the Secretary

Risk Management Committee

Mr. Tarakorn Angpubate

- Chairman of the Risk Management Committee (Independent Director)



Ms. Sopacha Dhumrongpiyawut

- Member of the Risk Management Committee



Mr. Somchai Trairatanapirom

- Member of the Risk Management Committee (Independent Director)



Mr. Thitipong Techaratanayuenyong

- Member of the Risk Management Committee and Secretary



Nomination and Remuneration Committee

Pol.Maj.Gen. Visit Sukarasep

- Chairman of the Nomination and Remuneration Committee (Independent Director)



Mr. Decha Chooligorn

- Member of the Nomination and Remuneration Committee (Independent Director)



Mr. Hathai Uthai

- Member of the Nomination and Remuneration Committee (Independent Director)



Mrs. Somluk Kanuenghet

- Member of the Nomination and Remuneration Committee and Secretary



Good Corporate Governance and Sustainable Development Committee

Mr. Somchai Trairatanirom

- Chairman of the Good Corporate Governance and Sustainable Development Committee (Independent Director)



Dr. Chongrak Rarueysong ¹⁾

- Member of the Good Corporate Governance and Sustainable Development Committee (Independent Director)



Mr. Pongtep Thithapand

- Member of the Good Corporate Governance and Sustainable Development Committee (Independent Director)



Remark : Ms. Chantra Jongjamareeseethong is the Secretary



Executive Committee

**Ms. Sopacha
Dhumrongpiyawut**

- Chairman of the Executive Committee



**Dr. Somboon
Aueatchasai**

- Member of the Executive Committee



**Ms. Naruechon
Dhumrongpiyawut**

- Member of the Executive Committee



**Mrs. Areewan
Chaloemdan**

- Member of the Executive Committee



**Mr. Chaloepon
Sricharoen**

- Member of the Executive Committee



Remark: Ms. Chantra Jongjamareeseethong is the Secretary



Management

**Ms. Sopacha
Dhumrongpiyawut**

- Chairman of the Executive Committee



**Dr. Somboon
Aueatchasai**

- Chief Executive Officer (CEO)



**Dr. Phongsakorn
Damnoen**

- Chief Operating Officer, Energy and Cannabis Business



**Ms. Naruechon
Dhumrongpiyawut**

- Chief Operating Officer, Strategic Investment and Sustainable Energy Business



**Mrs. Areewan
Chaloemdan**

- Chief Operating Officer, High Voltage Equipment Business



**Mr. Chaisiri
Wattanacharnnarong**

- Chief Operating Officer, Engineering and Turnkey Business



**Mr. Thitipong
Techaratanyuenyong**

- Chief Financial Officer (CFO)



**Mr. Theerapab
Punyasakhon**

- Chief Operating Officer, Business Support



**Ms. Suttirat
Tangnorakul**

- Senior Vice President, Accounting/ Person supervising Accounting





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Business Operation and Operating Results

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1. Operational Structure of the Group

1.1 Policy and Business Overview

Gunkul Engineering Public Company Limited (the “Company”) operates in renewable energy business, including equipment and integrated electrical system business and expanding into hemp and cannabis business with modern technology and innovation for improving the quality of life, a better health, and developing a strong and sustainable infrastructure.

The Company was established in 1982 from the business of importing and distributing equipment for electrical system and other related equipment to various public and private agencies. Afterwards, the Company had expanded the business of equipment for electrical system fully covering production, procurement and distribution, as well as, starting to expand into other businesses, such as engineering, procurement, construction (EPC) services for electric station, electric system and renewable energy power plant, and the maintenance of power plants of both public and private agencies. The Company was foreseeing the trend of increasing demand for electricity from renewable energy, therefore, had expanded its business scope into renewable energy business, which the Company’s first solar power plant project started the commercial operation in 2011. The Company focused on expanding its energy business based on sustainable business practices that focus on environment, society, and stakeholders, under good corporate governance principles and in line with the power generation development plan and the renewable and alternative energy development plan. Due to the global trend of moving towards a Net Zero Carbon society, the Company aims to improve both quality, standards, and safety to become one of the leaders in renewable energy, innovation and energy digital platform.

Throughout the Company’s 40-year history, the Company was transformed to a public company limited in 2009 and its securities were listed for trading on the Stock Exchange of Thailand (SET) on October 19, 2010 under the name GUNKUL, resulting in the Company’s significant growth. In addition, with a strong financial position experience and expertise of the Company and collaboration with leading partners, the Company never stop seeking business opportunities to increase operational potential and business value for stable and sustainable returns. The Company has continuously expanded its business to cover the consumers’ needs. For the renewable energy business, it has been extended to wind power plants and expanded investment to foreign countries such as Japan, Malaysia and Vietnam, as well as expanding the customer base to the private sector (Private PPA). In addition, digital disruption is an important factor driving the Company to develop innovations and comprehensive digital energy platform in order to make a difference in the development of the country’s infrastructure and energy

sustainability. by focusing on and studying E-Commerce Platform business in electrical equipment, Energy Trading Platform, EV Charging Station, Energy as a Service, and Virtual Power Plant (VPP) under Energy is Human Rights concept. In 2021, the Company began expanding its business into hemp and cannabis business, which is a business opportunity from new economic crops to create added value and prepare for the New S-Curve of the business by using the existing potential of the Company with the area from renewable energy power plants. The Company plans to operate a comprehensive hemp and cannabis business for the health of Thai people, which is an important basis for living. In addition, the Company plans to grow hemp in the greenhouse system for the highest level of quality control, with production and began to gradually recognize revenue from 2022 onwards.

In 2022, the Company has joined hands with business partners in renewable energy, which this business cooperation will increase the potential of the joint venture in renewable energy business. This is in line with the framework of National Energy Plan that focuses on increasing the proportion of electricity generation from renewable energy to achieve carbon neutrality goals within 2050.





The Company is committed to operate business along with maintaining a balance in economic, social and environmental aspects, driving the organization towards sustainable development (<https://www.gunkul.com/storage/download/cg/2023/20230321-gunkul-sustainability-development-en.pdf>) and has the operational goal so that stakeholders from all sectors can access and understand energy consumption, as well as providing an understanding that energy is tangible can be utilized to its full potential with the concept **“not only the energy, we care”**. In addition, the Company operates in 5 businesses as follows :

Renewable Energy Business

Solar power plant, wind power plant, and operation and maintenance services for power plants

1

Engineering and Turnkey Business

Construction of renewable energy power plants, power stations, transmission lines, grounding systems, submarine cable, microgrid system, and energy storage system

2

**not only
the energy, we care**

High Voltage Equipment Business

Production, procurement and distribution of electrical equipment, energy saving products, and alternative energy

3

Ecosystem Business Platform & Innovation

Business and innovation ecosystem that supports the Company's business with partners

4

Cannabis Business

Comprehensive hemp and cannabis business

5



1.1.1 Vision, Mission, Corporate Culture, Objectives, Goals, and Strategies for Business Operations

Vision

To be a leader in integrated renewable energy business, electrical equipment, and power system, with cutting-edge technology and innovation, to develop a strong and sustainable infrastructure. As well as, to be a global leader in hemp and cannabis business to improve quality of life and wellness.

Mission



Renewable Energy : Construct renewable energy power plants with high standards and efficiency by prioritizing society, local community and environment.



Hemp and Cannabis : Produce hemp/ cannabis in accordance with GAP and GMP standards to extend into wide range of products that enhance quality of life, for maximum benefits to customers.



Sales : Procure and deliver high quality power systems, energy saving products, hemp and cannabis products, distribution channels, as well as, render the services to fulfill customers' demand.



Technology : Develop IT system. Adopt cutting-edge technology and innovation to increase management, production, and services efficiency, as well as, to develop a variety of products and services to fulfill business partners' demand.



Returns : Create highest return for the shareholders and stakeholders' returns in a balanced and fair manner.



People Management : Develop employees' potential and broaden their knowledge and skills to extensive level in line with the Company's core competencies. All employees will be treated thoroughly and fairly under human rights principles.



Management Framework : Organize business structure and manage according to good corporate governance principles and sustainable development, with economic, society, and environmental responsibilities.

Corporate Culture

We G R O W T H together



Goal :

Determination to achieve goals



Reliability :

Be reliable and professional at work



Ownership :

Caring and Unity



Wisdom Learning :

Learning constantly causing intelligence and adaptation



Technology and Innovation :

Exposure to technology and extending innovation



Honesty and Governance :

Honest, transparent, and dedicated to responsibilities



Objectives, Goals, and short-term strategies for the year 2022

- 1 Strive to maintain the business growth goal of not less than 15% per year.
- 2 Set a target of purchasing additional renewable energy electricity (PPA) 100-150 megawatts to increase the cumulative proportion of PPA not less than 1,000 megawatts.
- 3 Manage greenhouse gas emissions in line with the government's stance on climate change of the country by setting goals to reduce carbon dioxide emissions from business operations in accordance with international guidelines and standards to move towards a low-carbon society.
- 4 Manage to mitigate the impact of the COVID-19 situation by focusing on employees' safety, business continuity, and contribution to the community and society as a whole
- 5 Establish a foundation and support the growth of each business group to support the Spin-Off business expansion, as well as, creating business partners to extend and strengthen the potential growth of subsidiaries and associated companies.
- 6 Expand investment and develop new businesses for diversification and business expansion, creating a New S-Curve, leading to an expansion of income base and profitability.

Objectives, Goals, and long-term strategies (3-5 years)

Aiming to build a strong operational foundation along with the development of the “New S-Curve” business in order to create stable and continuous growth and achieve long-term goals.

- 1 Adding value to the business by expanding investment in high-value business groups.
- 2 Applying technology and creating innovation in all dimensions to expand the business, increase competitiveness and reach more diverse customer groups, as well as, driving the organization and society towards the New Ecosystem of energy systems.
- 3 Extending product investment in order to have a complete range of important products that meet the needs of a wider customer group.
- 4 Collaborating with business partners, conduct mergers and acquisitions (M&A) both domestically and internationally for the Company to grow in line with the direction of industry and global trend in a timely manner.
- 5 Support the growth of each business group and promote spin off for management efficiency, as well as, increasing opportunities for long-term sustainable growth.





1.1.2 Major Changes and Development in the past 3 years

Year	Key Events										
2020											
February	Bright Green Power Co., Ltd (“BGP”), the Company’s subsidiary, invested in 2 solar power plant projects with a total size of 60 MW, namely the Tri Viet 1 Solar Power Plant and the Bach Khoa A Chau 1 Solar Power Plant Project in Vietnam (the Project) through the investment in 100% of ordinary shares in Singapore An Yang Pte. Ltd. (“SGAY”) and Singapore Yun Yang Pte. Ltd. (“SGYY”), the ultimate shareholders in the project, at USD 0.0935 per unit in a FiT scheme, for a period of 20 years, starting from COD date on May 28, 2019.										
Match	<p>The Company approved the 2nd Treasury Stock project for liquidity management purposes with details as follows :</p> <table> <tr> <td>The maximum amount that used for share repurchase</td><td>Not exceeding THB 1,100,000,000.00</td></tr> <tr> <td>The number of shares to be repurchase</td><td>Not exceeding 440,000,000 shares (Representing not exceeding 5.01% of the issued and paid-up capital)</td></tr> <tr> <td>Methods for buying back shares</td><td>SET</td></tr> <tr> <td>Period</td><td>April 1, 2020 to September 30, 2020</td></tr> <tr> <td>The number of shares repurchased</td><td>0 Share</td></tr> </table>	The maximum amount that used for share repurchase	Not exceeding THB 1,100,000,000.00	The number of shares to be repurchase	Not exceeding 440,000,000 shares (Representing not exceeding 5.01% of the issued and paid-up capital)	Methods for buying back shares	SET	Period	April 1, 2020 to September 30, 2020	The number of shares repurchased	0 Share
The maximum amount that used for share repurchase	Not exceeding THB 1,100,000,000.00										
The number of shares to be repurchase	Not exceeding 440,000,000 shares (Representing not exceeding 5.01% of the issued and paid-up capital)										
Methods for buying back shares	SET										
Period	April 1, 2020 to September 30, 2020										
The number of shares repurchased	0 Share										
May	The Company paid cash dividend for the year ended December 31, 2019 and retained earnings for the year ended 2018 at the rate of 0.136 baht per share on May 15, 2020. The total cash dividend payment was no more than THB 1,200,000,000.00										
September	The Company sold the Utsunomiya Solar Power Plant Project, Japan, with a capacity of 66.78 MW by selling 100% of the investment in GD Solar Utsunomiya Godo Kaisha (“GD Solar”) at a sale value of JPY 5,964,930,000.00 or equivalent to THB 1,679,921,130.69.										

Year	Key Events
November	The Company invested in the Phong Dien II Solar Power Plant project with a total capacity of 50 MWp in Vietnam through the investment in 100% ordinary shares of Doan Son Thuy Investment JSC (“DST”) with a project investment value of USD 39,850,000.00, or equivalent to THB 1,258,582,550.00.
December	<p>Bright Green Power Co., Ltd. (“BGP”), the Company’s subsidiary, acquired 100% ordinary shares of INT Energy Pte. Ltd. (“INT”) to invest in a solar power plant project with a total capacity of 50 MWp in Vietnam, which was held by Tan Chau Energy Joint Stock Company (“TCE”) with a project investment value of USD 47,140,000.00, or equivalent to THB 1,471,097,980.00.</p> <p>Phong Dien II Solar Power Plant project, located in Thua Thien Hue Province, Socialist Republic of Vietnam, already completed the commercial operation with a total capacity of 50 MWp and produces and sells electricity from solar power to Vietnam Electricity (“EVN”), at USD 0.0709 per unit in FiT scheme, with 20 years concession period started from the COD.</p> <p>The Company sold the Iwakuni Solar Power Plant Project, Japan, with a capacity of 75 MW by selling 100% of its investment in East Japan Solar 13 Godo Kaisha Company (“EJS 13”) with a selling value of JPY 9,942,653,495.00, or equivalent to THB 2,863,842,142.09.</p> <p>LSSPV Solar Power Plant Project located in Terengganu, Malaysia with the contracted electric quantity of 29.99 MW and the installed power is 39.0297 MW, already completed the commercial operation. This is a project that produces and sells electricity from solar power to the Tenaga Nasional Berhad (“TNB”) at MYR 0.38 per kilowatt hour in FiT scheme with 21 years concession period started from COD.</p>



Year	Key Events
2021	
March	TRIS Rating Company Limited has upgraded the corporate credit to the Company from BBB level to BBB+ level, and raising the rating of the unsubordinated, unsecured bonds from BBB- level to BBB level.
April	The Company approved the hemp business plan and the establishment of a Company to support such business operation. The establishment of the Company will be held in the form of a holding company, with an initial registered capital of THB 50,000,000.00 and 2 subsidiaries.
May	The Company paid cash dividends for the year ended December 31, 2020 at the rate of 0.182 baht per share on May 24, 2021. The total cash dividend payment was not more than THB 1,600,000,000.00
July	Future Energy Corporation Co., Ltd. ("FE"), the Company's subsidiary, jointly established a joint venture company with Origin Energy Co., Ltd., a subsidiary of Origin Property Public Co., Ltd. ("ORI"), with a registered capital of THB 1,000,000.00 to jointly develop and invest in projects to sell electricity from solar rooftop, EV charger, and parity energy trading in condominiums and villages that Origin Energy and/or its associated that are developers, construction, and management companies.
September	The Company paid interim dividend for the half-year performance from January 1, 2021, to June 30, 2021. Such interim dividend was paid in cash at the rate of 0.06 baht per share on September 9, 2021. The total cash dividend payment was not more than THB 535,000,000.00
October	<p>The Company invested 50% in THCG Group Co., Ltd. ("THCG") with a value of THB 250,000,000 through an investment by G.K. Hemp Group Co., Ltd. ("GKHG") (a subsidiary that the Company holds 100% of shares), resulting in THCG being a joint venture company to operate hemp and cannabis cultivation businesses for distribution, including production and selling products that are derived from hemp and cannabis.</p> <p>G.K. Smart Farming Co., Ltd., the Company's subsidiary, has been considered for approval for a license to import narcotics of category 5, specifically hemp, from the Food and Drug Administration for commercial or industrial purposes. The type of hemp that is licensed is the seeds from the United States of America.</p>

Year	Key Events
December	G.K. Smart Farming Co., Ltd., the Company's subsidiary, has been considered for approval for a license to produce (plant) narcotics of category 5, specifically hemp, by the Food and Drug Administration for commercial or industrial purposes. The planting pattern is a general planting plant (Greenhouse).
2022	
May	<p>The Company paid cash dividend for the year ended December 31, 2021 at the rate of 0.12 baht per share on May 23, 2022. The total cash dividend payment was no more than THB 1,068,000,000.00</p> <p>G.K. Bio Extraction Company Limited, the Company's subsidiary, received a license to produce (non-planting) narcotics of category 5, specifically hemp, or a license to extract important substances from hemp plants, at the place namely, "Hemp Extraction Plant, Klong 11", for commercial or industrial purposes.</p> <p>The Company signed a corporation agreement on investment and development of renewable energy projects and established a joint venture company with Gulf Renewable Energy Company Limited, a subsidiary of Gulf Energy Development Public Company Limited (GULF), to study, develop, and jointly invest in solar rooftop projects, by holding equal shares at 50%.</p>
July	The Company offered and issued ordinary shares of Gulf Gunkul Corporation Company Limited totaling 11,170,000 shares by waiving the rights to subscribe for ordinary shares and let Gulf Renewable Energy Company Limited, as a strategic partner, to purchase 50% of newly issued ordinary shares with investment value of THB 5,000,000,000.00. Another 50% of shares is held by the Company.
December	The Company paid interim dividend for the 9-month performance from January 1, 2022 - September 30, 2022 on December 8, 2022. Such interim dividend was paid in cash at the rate of 0.06 baht per share. The total cash dividend payment was no more than THB 535,000,000.00



1.1.3 Use of funds from fundraising purposes

On December 31, 2022, the Company had unmatured debenture totaling 3,148.7 million baht, which meant to finance the investment expansion in solar power projects both domestically and internationally, rooftop solar power projects, and wind power project under the Thailand's Power Development Plan 2018 - 2037, Revised No. 1 (PDP 2018 REV.1), including the Company's new investment projects, and to use as working capital. The Company has used all funds from the issuance and offering of debentures in accordance with the objectives stated in the registration statement for the offering of securities. Details of unmatured debentures are shown in Note 15 to the financial statements.

In this regard, the Company complies in accordance with the law, rules and regulations specified in the notifications of the Office of the Securities and Exchange Commission and/or the Capital Market Supervisory Board or other relevant regulations.

1.1.4 The Company's Obligations according to Debentures Issuance

The Company has no financial obligations for each series of debentures as specified in the registration statement for the offering of debentures and other relevant documents of each series of debentures.

1.1.5 General Information of the Company

Name (Thai)	บริษัท กันกุลเอ็นจิเนียริง จำกัด (มหาชน)
Name (English)	Gunkul Engineering Public Company Limited
Symbol	GUNKUL
Head Office Address	1177 Pearl Bangkok Building, 8 th Floor, Phahonyothin Road, Phayathai, Phayathai, Bangkok 10400
Business sector	Energy and utilities
Company Registration Number	0107552000146
Telephone	(+66) 2 242 5800
Website	www.gunkul.com
Type of Shares Issued	Ordinary shares
Registered Capital	2,220,632,743.50 baht
Paid-up Capital	2,220,632,743.50 baht
Number of paid-up shares	8,882,530,974 shares
Par value	0.25 baht





1.2 Nature of Business

1.2.1 Revenue Structure

Revenue Structure by Business Unit

Revenue Type	2020		2021		2022	
	Million Baht	Percentage	Million Baht	Percentage	Million Baht	Percentage
1. Revenue from sale	1,495.88	13.67	1,474.97	15.10	1,829.22	19.22
2. Revenue from sale of electricity	4,093.36	37.39	4,760.50	48.73	3,448.85	36.25
3. Revenue from rendering of services and construction services	2,146.63	19.61	2,112.60	21.63	1,776.25	18.67
4. Revenue from sale of assets under finance lease	913.48	8.34	970.09	9.93	451.37	4.74
5. Revenue from extra profit ¹⁾	2,223.65	20.31	377.40	3.86	1,948.75	20.48
6. Other income	74.46	0.68	72.86	0.75	60.66	0.64
Total revenue	10,947.46	100.00	9,768.42	100.00	9,515.10	100.00

Note : ¹⁾ Extra profit means gain on change in fair value of derivatives, gain on bargain purchase, gain on sale of investment in subsidiaries, and gain on change in ownership interest in subsidiaries to joint ventures

Revenue Structure by Customer Groups

Revenue Type	2020		2021		2022	
	Million Baht	Percentage	Million Baht	Percentage	Million Baht	Percentage
1. Government Customers						
- Revenue from sales of equipment for electrical systems and renewable energy systems and Revenue from rendering of services	3,555.92	41.11	2,425.75	25.76	2,930.13	39.04
- Revenue from sale of electricity	4,093.35	47.33	5,830.58	61.91	3,449.23	45.95
2. Private Customers						
- Revenue from sales of equipment for electric system and renewable energy systems	263.22	3.04	229.71	2.44	259.50	3.46
- Revenue from rendering of construction services of power plants	728.10	8.42	930.00	9.87	864.62	11.52
3. Foreign Customers	8.75	0.10	2.12	0.02	2.21	0.03
Total	8,649.34	100.00	9,418.16	100.00	7,505.69	100.00

Note : Excluding income from extra profit and other income



1.2.2 Information about Business Groups, Procurement and Distribution, Product or Service Characteristics and Innovation Development

1. Renewable Energy Business

1.1 Nature of Business

The Company and the Group operates the business of producing and distributing electricity from renewable energy to both the public and private sectors according to the government's policy to promote the production and use of electricity from renewable energy. This reduces dependence on energy imports and to increase energy security. The Company and the Group see an opportunity to develop and invest in renewable energy related businesses which is a business group with high growth potential and has low operating risks which is a stable and continuous source of income for the Group in the long term. Therefore, the Company's scope of business has expanded from supplying and distributing renewable energy-related equipment to producing and distributing electricity generated by renewable energy sources such as solar and wind, both domestically and internationally, details are as follows :

1. Solar Power Plant

1.1 Solar Farm or Solar Ground

Conducts business of producing and distributing electricity generated by solar energy, which is a ground-mounted power plant under the operation of subsidiaries and joint venture companies both domestically and internationally, with a total capacity of 413.09 megawatts.

1. Solar power plant, 24 projects in the country, details are as follows :

The Group's solar energy projects has made contracts to sell electricity to the Provincial Electricity Authority (PEA), consists of projects from subsidiaries, 11 projects from Rang Ngern Solution Co., Ltd., 1 project from Eco Thai Energy Co., Ltd., 1 project from NK Power Solar Co., Ltd., 1 project from BMP Solar Co., Ltd., and 2 joint venture companies, 6 projects from Gunkul Chubu Powergen Co., Ltd., and 4 projects from G-Power Source Co., Ltd., totaling 24 projects with a total capacity of 157.8 MW which has been commercialized.

2. Solar power plant projects overseas, there are 7 projects as follow ;

- Japan, 2 projects

The Company and the Group have invested in 2 ground-mounted solar energy projects in Japan, namely Sendai Okura GD Daiichi Godo Kaisha ("SND") and Kimitsu Mega Solar Godo Kaisha ("KMT"). It has a contract to sell power to Tohoku Electric Power Co., Inc. ("Tohoku Electric") and TEPCO Energy Partners Co., Inc. ("TEPCO EP") respectively, with a combined capacity of 65.25 megawatts which has all been commercialized. The details can be summarized as follow :

Project	Capacity* (MW)	Project Site (according to Application)	Power purchase rate Feed-in-Tariff (FiT)	Commercial Operation Date
Sendai Okura GD Daiichi Godo Kaisha "SND"				
1	31.75	Sendai, Miyagi	JPY 36 per GWh	Quarter 4 of the year 2018
Kimitsu Mega Solar Godo Kaisha "KMT"				
2	33.50	Kitmitsu, Chiba	JPY 36 per GWh	Quarter 2 of the year 2019
Total	65.25			

* Total production capacity of the project

- Malaysia, 1 project

The Company and the Group have invested in 1 ground-mounted solar power plant project in Malaysia, Kenyir Gunkul Solar Sdn Bhd ("KGS"), which has a power purchase agreement with Malaysia's electricity authority, Tenaga Nasional Berhad ("TNB"). The contracted capacity is 29.99 megawatts and it has been commercialized. The details can be summarized as follow :

Project	Capacity* (MW)	Project Site (according to Application)	Power purchase rate Feed-in-Tariff (FiT)	Commercial Operation Date
Kenyir Gunkul Solar Sdn Bhd				
1	29.99	Paka, Terengganu	MYR 0.38 per kWh	31 December 2020
Total	29.99			

* Total production capacity of the project



- Vietnam, 4 projects

The Company and the Group have invested in 4 ground-mounted solar energy projects in Vietnam, namely Tri Viet Tay Ninh Joint Stock Company, Bach Khoa A Chau Tay Ninh Joint Stock Company, Doan Son Thuy Investment Joint Stock Company, and Tan Chau Energy Joint Stock Company, all of which have a power purchase agreement with Vietnam Electricity (“EVN”), the country’s electricity authorization. The entire installed capacity is 160 megawatts which is the proportion of the whole group of companies, all of which have been commercialized. The details can be summarized as follow :

Project	Capacity* (MW)	Project Site (according to Application)	Power purchase rate Feed-in-Tariff (FIT)	Commercial Operation Date
Bach Khoa A Chau Tay Ninh Joint Stock Company				
1	30	Tay Ninh Province	USD 0.0935 GWh	Quarter 2 of the year 2019
Tri Viet Tay Ninh Joint Stock Company				
2	30	Tay Ninh Province	USD 0.0935 GWh	Quarter 2 of the year 2019
Tan Chau Energy Joint Stock Company				
3	50	Tay Ninh Province	USD 0.0709 GWh	Quarter 4 of the year 2020
Doan Son Thuy Investment Joint Stock Company (100.00% proportion)				
4	50	Thua Thien Hue Province	USD 0.0709 GWh	Quarter 4 of the year 2020
Total	160			

* Total production capacity of the project

In addition, the Company and the Group have additional investment plan in Vietnam and other countries with potential for investment to increase more business opportunities.

1.2 Solar PV Rooftop Power Plant

According to the cabinet meeting on August 13, 2013, it was determined to acknowledge the resolution passed by the National Energy Policy Council (NEPC) on July 16, 2013, agreeing to approve the purchase of power from rooftop photovoltaic system with a capacity of photovoltaic panels totaled 200 MWp, with 100 MWp dedicated to residential structures and another 100 MWp to commercial and industrial buildings. The Company has begun to commercially distribute the electricity under power grid network in 2013 with the Feed-in Tariff purchase rate with 25 years term under such project. The Company has co-invested in numerous projects across the country, simultaneously. The Company has established a subsidiary to facilitate the building of solar photovoltaic rooftop power plants through collaborative investment. Ready to begin construction on the following projects :

- Rooftop solar power project for sale to the Provincial Electricity Authority (PEA) and the Metropolitan Electricity Authority (MEA), details as follows :

- Solar Rooftop Project with PEA**

The Company and the Group have operated 3 rooftop solar power plant projects with PEA, namely Gunkul Solar Power 2 Co., Ltd., WHA Gunkul Green Solar Roof 17 Co., Ltd. and Green Line Energy Co., Ltd. with a total installed power of 2,533.68 kWp, which has been commercialized.

- Solar Rooftop Project with MEA**

The Company and the Group have partnered with MEA totaling 10 solar rooftop projects, namely WHA Gunkul Green Solar Roof 1 Co., Ltd., WHA Green Solar Roof 3 Co., Ltd., WHA Gunkul Green Solar Roof 6 Co., Ltd., Solar Energy Society Co., Ltd., Siam Gunkul Solar Energy Co., Ltd., Gunkul Solar Roof 1 Co., Ltd., TS Power Energy Co., Ltd., and Mont RM Co., Ltd., with a combined installed capacity of 6,300.44 kWp that has been commercially operated.

- Solar rooftop projects for the private power purchase agreement



The Company has jointly invested in projects in many provinces across the country. At the same time, Solar Energy Society Co., Ltd. was established to support the competitive price of electricity for industrial plants (Private Power Purchase Agreement : PPPA). Solar Energy Society Co., Ltd. will invest in the construction of solar PV Rooftop and sell electricity to the customers at points of PV Rooftop installation across the country. At present, the Company has gained the trust from various group of customers such as industrial factory, department stores, printing houses and private companies, etc. The total Solar Rooftop installed capacity is more than 85,582.58 kWp.

3. Solar Rooftop Project for Self-Consumption

According to the BOI has issued the Board of Investment Announcement No. 9/2560 (2017) regarding investment promotion measures to improve production efficiency with the objective of modifying machines to conserve energy and utilize renewable energy to reduce the impact on the environment. The promoted person will be exempt from corporate income tax for 3 years, representing 50% of the investment, including exemption from import duty on machinery which stimulated large amount of participants in the industrial sector for applying in such project. Additionally, other business groups that utilize a lot of electricity without being promoted, are interested in installing solar panels to generate electricity from renewable energy for their own use within their own agencies or organizations (Self-Consumption). The Company is aware of the growing trend of such demand and has no obligation to sell power to government agency. The Company therefore foresee the opportunity and accelerated investment in the business of generating electricity from solar power installed on the industrial roof on commercial building group, residential housing group, organizations and government agencies, and other business groups that use a lot of electricity. In addition, customers who have unused land plots can also use such land to build a power generation project on the ground for their own use within the organization. Currently, the Company has gained trust from many customers that selected the Company to be the operator of the said project with a variety of customer groups, such as the Electricity Generating Authority, factory, department stores, printing houses, private companies and hospitals, etc. The total installed capacity of Solar Rooftop Project for Self-Consumption is more than 99,998.64 kWp.



Additionally, the Company set up a subsidiary in 2019 under the brand GRoof to respond to and advertise particularly for residential solar rooftop customers because the Company anticipates the market for such consumers growing due to increased demand. With the cost of solar power production systems continuing to decrease and awareness of solar rooftop systems growing, the Company is convinced that the Residential Solar Rooftop market has a significant development growth potential. Currently, the Company offers packages for customers looking for solar systems starting from 2 kilowatts with accessibility in both on-grid and hybrid configurations with acclimated battery system, so far, GRoof has installed Solar Rooftop systems for more than 1,000 households, office buildings, condominiums, housing projects, and convenience stores across the country.

“MWp” refers to the maximum megawatts of the photovoltaic panel at Standard Test Condition

“KWp” refers to the maximum kilowatts of the photovoltaic panel at Standard Test Condition

1.3 Floating Solar Farm

The Company has studied and applied expertise and experience to design and operate a floating solar energy producing business that will put solar panels on the water in addition to placing the solar panel on the ground and roof. By using cutting-edge technology, solar panels energy generation can thus be put on the water and is capable of withstanding variations in sea level and wind speed without impact on the power generation level and adheres to safety criteria. Additionally, it can assist in reducing water evaporation which is ideal for ponds that require water storage throughout the year. Moreover, the evaporation of water contributes to the cooling of the heat generated by the solar panel. This also improves the efficiency of solar panels in terms of generating electricity. For water sources that are suitable to be reservoirs, dams, or wells, the area above the water can be utilized for beneficial purposes, thereby minimizing the use of land that could be developed in another way.





The picture shows the solar power plant project installed on the water at Sirindhorn Dam, size 256 kilowatts.



Picture showing the solar power plant project, installed on the water at Prachinburi Glass Industry Co., Ltd., size 696.80 kW.

At the moment, the Company has operated 2 floating solar power plants, namely the project of the Electricity Generating Authority of Thailand (EGAT), Sirindhorn Dam, and the project of Prachinburi Glass Industry Co., Ltd. with a total capacity of 952.8 kWp, which has been commercialized.

2. Wind Farm

Wind energy is a form of natural energy that is generated by temperature differences, atmospheric pressure and the rotational force of the Earth. These are the variables that affect wind speed and wind energy. At the moment, a greater emphasis is being placed on and utilization of wind energy due to the fact that wind energy is a clean source of energy with no energy costs. As a result, it is used as a source of alternative energy in a number of countries including Thailand despite its proximity to the equator, resulting in a low to moderate wind speed. However, Thailand continues to pay attention on wind energy development by investigating potential wind energy sources and conducts research and development on low-speed wind turbines that are appropriate for the country's wind potential and promotes the use of high-efficiency wind turbines from both domestic and international manufacturers. In accordance with the renewable energy and alternative energy development plans contained in

the PDP 2018 REV.1 plan, which sets a target of promoting the production of 1,500 megawatts of new wind energy, by changing the schedule to purchase electricity from wind energy faster from the original purchase in 2034 to 2025, during the year 2025-2030, 250 megawatts per year.

Through government policies that promote energy security along with its strategy of environmentally friendly growth (Green Growth), the Company is cognizant of its involvement in the development of renewable energy projects to contribute to Thailand's environmental sustainability by assisting in the reduction of greenhouse gas emissions. The Group has applied to PEA and EGAT for electricity distribution rights for 4 wind power plant projects, namely Wind Energy Development Co., Ltd., Greenovation Power Co., Ltd., and Korat Wind Energy Co., Ltd. with a total capacity of 170 megawatts. The details can be summarized as follow :

Project	Capacity* (MW)	Project Site (according to Application)	Commercial Operation Date according to Power Purchase Agreement
Wind Energy Development Co., Ltd. “WED” (a joint venture, the Company holds 50% of the registered capital)			
1	2.0	Tambon Huai Bong, Amphoe Dan Khun Thot, Nakhon Ratchasima	March 2016
	8.0	Tambon Huai Bong, Amphoe Dan Khun Thot, Nakhon Ratchasima	March 2016
2	50.0	Tambon Huai Bong, Amphoe Dan Khun Thot, Nakhon Ratchasima	December 2016
	60.0		
Greenovation Power Co., Ltd. “GNP” (a joint venture, the Company holds 50% of the registered capital)			
3	60.0	Tambon Huai Bong, Amphoe Dan Khun Thot, Nakhon Ratchasima	March 2018
	60.0		
Korat Wing Energy Co., Ltd. “KWE” (a joint venture, the Company holds 50% of the registered capital)			
4	50.0	Tambon Nong Nam Sai, Amphoe Si Khio, Nakhon Ratchasima	June 2018
	50.0		
Total	170		

* Total production capacity of the project

3. Operation and Maintenance of Power Plants Business

The Company has gained trust from external customers and partners to act as a service provider for the operation and maintenance of power plants following the completion of the solar power plant's construction (Operation and Maintenance Agreement). This enables the production operation to be controlled and the electricity distribution efficiency of rooftop and ground-mounted solar power plants to be maintained. Currently, the Company maintains power plants for 74 companies and 138 projects totaling 292.08 megawatts.

1.2 Industry, Market, and Competition

An overview of Thailand's electrical system

In Thailand, the electricity generation and transmission industries operate under an Enhanced Single-Buyer Model (ESB), which means that EGAT (Electricity Generating Authority of Thailand or EGAT) is both the producer and purchaser of electricity that distributes into the system exclusively. Related entity can be found by the following :

1. Power Producers

Power producers in Thailand's electrical system are classified into 6 categories : EGAT, major power producers (IPPs), small power producers (SPPs), very small power producers (VSPPs), and other producers including government agencies such as the Department of Alternative Energy Development and Efficiency which utilize renewable energy source that generates electricity via a small hydroelectric dam and imports electricity from other countries.

EGAT serves as both the largest producer and purchaser of electricity generated by other producers including purchasing electricity from neighboring countries such as Lao People's Democratic Republic and Malaysia, monopolizing the country's transmission line system (Transmission System), and determining the amount of electricity that each power plant must supply to the country's electricity transmission system in order to meet the country's electricity demand at any given time.

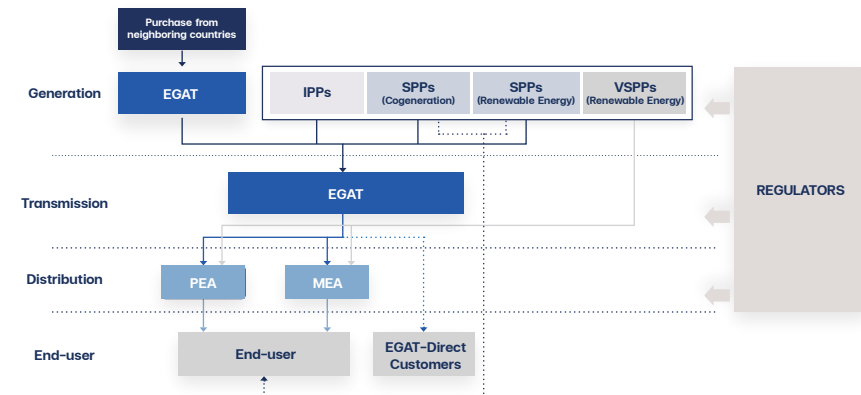
2. Power Distributors

EGAT will distribute electricity to two state enterprises, namely the Metropolitan Electricity Authority (MEA) and Provincial Electricity Authority (PEA), which are responsible for distributing electricity to the industrial sector business and household sectors in various areas of the country. Additionally, EGAT also sells electricity directly to some customers as well.

In the process of transmission of electricity from power plants to MEA and PEA, the voltage must be adjusted appropriately to minimize the loss from transmission over long distances. After that, MEA and PEA will deliver electricity to users through a voltage distribution system in order to convert the voltage level to a lower level that consumers can use. MEA is responsible for the distribution electricity in Bangkok, Nonthaburi and Samut Prakan areas, while PEA is responsible for the distribution of electricity in other provinces other than the above 3 provinces.

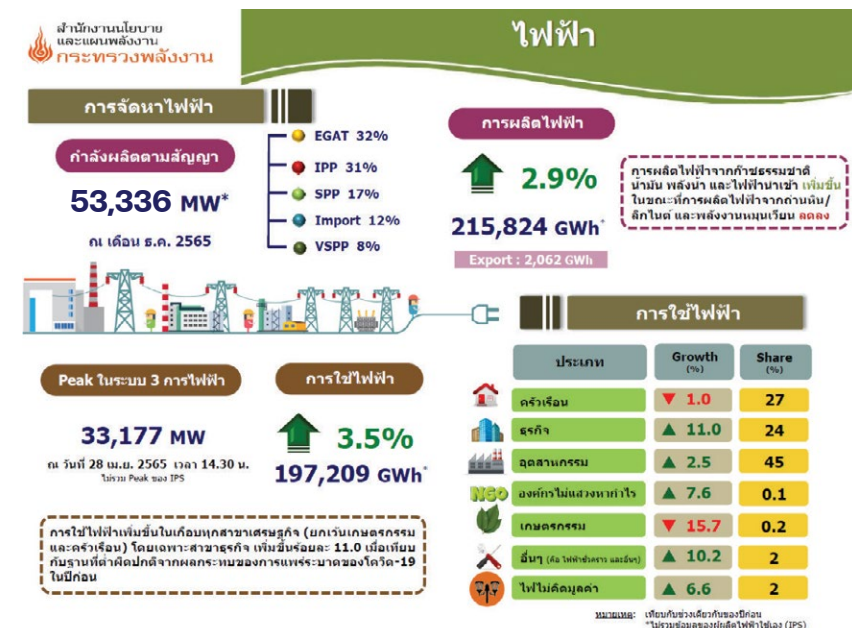
3. Electricity Supply Structure

Consumers of electricity consist of different types of electricity users such as industrial sector, business sector, residential sector, etc.



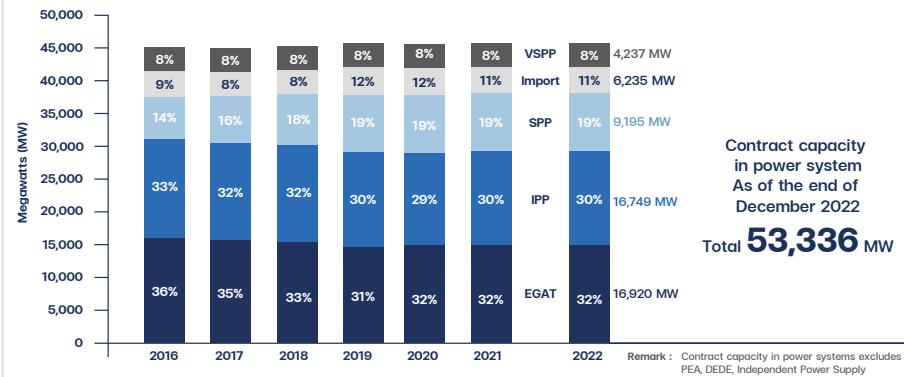
Source: EPPG, compiled by Krungthai Research

According to information from the Energy Policy and Planning Office Ministry of Energy in 2022 Thailand has electricity supply, electricity generation and electricity consumption, which can be shown in the diagram as follows :

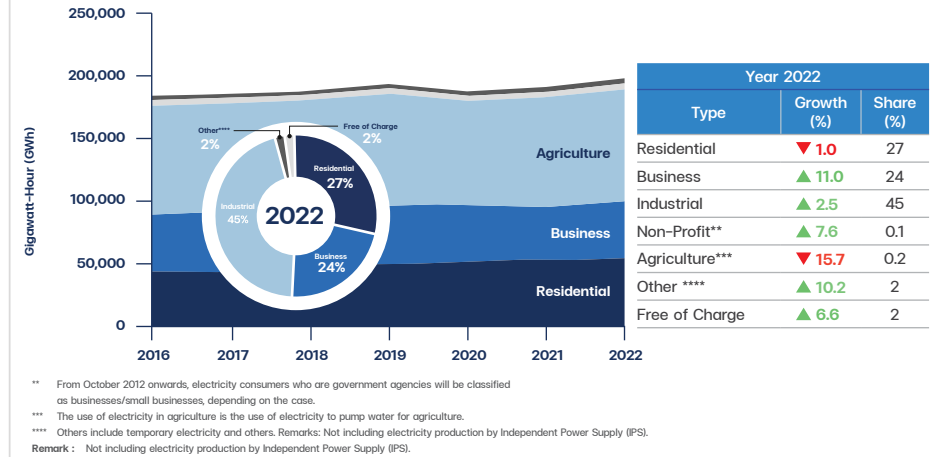




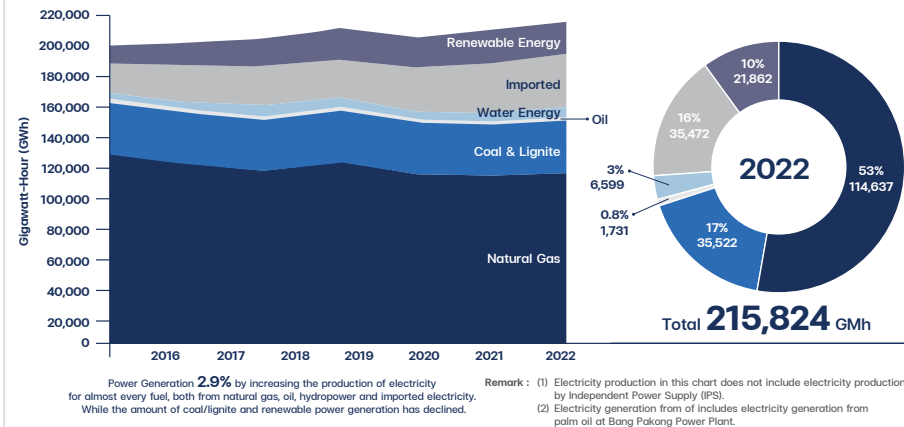
Contract Capacity in Power Aystem



Electricity Consumption ▲ 3.5%



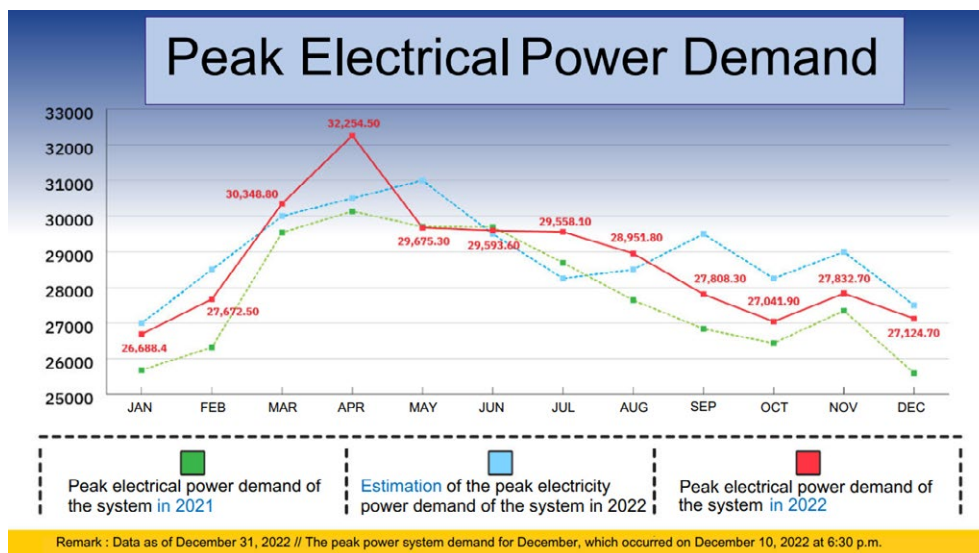
Power Generation Classified by Fuel Type



Source : Office of Energy Policy and Planning, Ministry of Energy

The growth direction of the power generation industry depends on the following main factors :

1. The increasing demand for electricity is directly dependent on economic conditions, with the Thai economy continuing to recover in line with improving private consumption indicators and the inflation rate has decreased. There are also positive factors in infrastructure development, whether from the announcement of the Eastern Economic Corridor (EEC) development project in 2017 encourages significant government investment in infrastructure, such as the construction of a high-speed electric tram system, construction of highways to connect industrial factory areas to transportation routes, etc., This will cause the spread of prosperity and investment in many more industrial plants. In the year 2022, the impact of the COVID-19 outbreak began to subside and became a local disease, causing the highest demand for electricity more than 2021 every month and peak demand for the system in April, in the amount of 32,254.50 megawatts as shown in the figure below.



Source : External Communications Division, Organization Public Relations and Communications Department, EGAT

If considering the use of electricity in each household, it was found that in 2022, Thailand consumed electricity with 1.8% more electricity consumption compared to 2021, with the household level was up 2.6% to 54,290 GWh and the industrial level was up 5.2% to 86,427 GWh, as shown in the table below :

Level of electricity consumption	2020	2021	Change (%)	Proportion
Residential	52,860	54,260	2.6%	28.5%
Business	43,950	41,529	-5.5%	21.8%
Industrial	82,158	86,427	5.2%	45.4%
Others	8,079	8,223	1.8%	4.3%
Total	187,047	190,439	1.8%	

Source : Thailand Energy Statistics Report 2022 from the Energy Policy and Planning Office, Ministry of Energy.

2. Government policies, according to the PDP 2018 REV.1 plan, focus on 3 areas as follows :

- 1) Economy : Promote the production of electricity at a reasonable cost to reduce the burden on electricity users. Stimulate job creation, income generation and not hinder the long-term economic and social development of the country.
- 2) Energy security : Create a comprehensive development of power generation systems, power transmission systems and power distribution systems to meet the demand for electricity. Reduce dependence on foreign energy imports to create energy security at an appropriate level. Create a good quality of life from having enough electricity to everyday life.
- 3) Environment : Contribute to the generation of electricity from renewable and alternative energy sources and to the improvement of the power system's efficiency. Thailand is willing to set a higher bar for resolving climate issues in order to mitigate environmental impacts and achieve carbon neutrality by 2050 and net zero emissions by 2065.

The forecast of electricity demand used in the preparation of the PDP 2018 REV.1 during the year 2018 - 2037 by using projection of the long-term economic expansion (GPD) trend in 2017 – 2037, has an average of 3.8% per year, using the average population growth rate of -0.02% per year of the Office of the National Economic and Social Development Council (NESDB). It was found that the forecast values for the net total electricity demand of the 3 power utilities system and the net peak power in 2037 were approximately 367,458 million units and 53,997 megawatts, respectively.

Year	PDP 2015		PDP 2018 REV.1		Change	
	Maximum Electrical Power (Megawatts)	Electrical Power (Million Units)	Maximum Electrical Power (Megawatts)	Electrical Power (Million Units)	Maximum Electrical Power (Megawatts)	Electrical Power (Million Units)
2018	32,429	212,515	29,969	203,203	(2,460)	(9,312)
2022	36,776	241,273	35,213	236,488	(1,563)	(4,785)
2027	41,693	273,440	41,079	277,302	(614)	3,862
2032	46,296	303,856	47,303	320,761	1,007	16,905
2037	-	-	53,997	367,458	-	-

Source : Office of Energy Policy and Planning, Ministry of Energy

According to the PDP 2018 REV.1 plan, there will be power generation capacity in the three power grids by late 2037, totaling 77,211 megawatts.

At the end of 2017, power generation capacity was total 46,090 megawatts, based on the total capacity of new power plants of 56,431 megawatts, and the discontinue of old power plants with a capacity of 25,310 megawatts during the same period.

**Power generation during 2018 - 2037**

Electricity generation capacity as of December 2017	46,090	megawatts
New electricity generation capacity during 2018 - 2037	56,431	megawatts
Discontinued electricity generation capacity from the system during the year 2018 – 2037	<u>(25,310)</u>	megawatts
Total electricity generation capacity at the end of 2037	<u>77,211</u>	megawatts
New electricity generation capacity during classified by type of power plants as follows :		
Renewable Energy Power Plant	18,833	megawatts
Community Power Plant	1,933	megawatts
Pumped-Back Hydroelectric Power Plant	500	megawatts
Cogeneration Power Plant	2,112	megawatts
Combined Heat Power Plant	15,096	megawatts
Coal/lignite Power Plant	1,200	megawatts
Electricity Import	5,857	megawatts
New/Replacement Power Plant	6,900	megawatts
Energy Conservation Section	4,000	megawatts
Total	56,431	megawatts

Source : PDP 2018 REV.1, Energy Policy and Planning Office, Ministry of Energy

Guidelines for preparing the PDP 2018 REV.1 plan consists of 4 main parts :

1. Power plants according to the government's promotion policy : Promote electricity production from renewable energy such as community waste and Pracharath biomass power plants in 3 southern border provinces.
2. The main fossil fuel power plants are consisting of EGAT power plants, IPP, SPPs, and electricity purchases from abroad by (1) allocating key power plants for regional stability and divided into 7 regions, namely, the north, the northeast, and the east, the western region, the central region, the southern region and the metropolitan area. (2) main power plant allocation as necessary and sufficient which the EGAT maintain the stability of the power system in each region.

3. Renewable energy power plants, as defined in the Renewable Energy Development Plan (AEDP), include biomass, biogas, solar energy, solar buoyancy power in conjunction with hydroelectric power plant, and other renewable energy with an annual purchase target consistent with the policy of generating electricity from renewable sources and at a price not exceeding Grid Parity in order to maintain stable retail electricity prices.
4. Energy conservation policy is a component of the energy conservation plan that can demonstrate confidence in the quality of the product and can compete at prices no higher than Grid Parity.

In 2020, the PDP 2018 REV.1 plan was revised with the approval of the National Energy Policy Council and the cabinet on 19 March 2020 and 20 October 2020, respectively, with the difference from the original as follows :

- 1) Reduction of purchase on electricity generated by the community solar project.
- 2) Supporting the “Energy for All” policy in considering the purchase of electricity from the community power plants during the years 2020 – 2024.
- 3) The Pracharath biomass power plant project in 3 southern border provinces has been delayed from the plan. Therefore, the date of starting electricity trading from 2021 and 2022 with a volume of 60 megawatts per year has been postponed to 2022 and 2023 with a volume of 60 megawatts per year, as well as changing the type of producer from SPP and VSPP.
- 4) Increasing the target for biogas electricity production from PDP 2018 REV.1 at the end of 2037 with a total contracted power generation capacity of 546 megawatts to 1,183 megawatts, as well as clearly separating fuel types from wastewater/waste from plant power.
- 5) Postpone the start date of electricity trading and changing the fuel type of a large private power plant, Burapha Power Generation Co., Ltd. (formerly National Power Supply Co., Ltd.) according to the start date of electricity trading and fuel type that the Company has signed a power purchase agreement.
- 6) Increase the stability of the upper northern region's electrical system in the Chiang Mai area, Chiang Rai, Phayao, and Lamphun Provinces by mitigating risks associated with power generation supplied via the transmission system by extending the life of Mae Moh power plant unit 9 with contracted capacity of 270 megawatts for an additional three years, deferring the plant's closure from 2022 to 2025.
- 7) Reduce the country's overall electricity generation cost by extending the life of low-cost power plants, such as Mae Moh power plant units 12-13, which were scheduled to close in 2025, to 2026.



Fuel Type	FiT (baht per unit)	2024	2025	2026	2027	2028	2029	2030	Total
Biogas (waste water/ waste)	2.0724			75	75	75	70	40	335
Wind power	3.1014		250	250	250	250	250	250	1,500
Ground-mounted solar combined with energy storage system	2.8331	100	100	100	100	200	200	200	1,000
Ground Mounted Solar	2.1679	190	190	258	440	490	310	390	2,368

Currently, the Energy Regulatory Commission has announced an invitation to purchase electricity from renewable energy in the form Feed-in-Tariff for the year 2022 – 2030, with a 20-year power purchase agreement for biogas fuel (waste water/waste), and 25-year for other types of fuels under the PDP 2018 REV.1 plan. If any project is located in the southern border provinces, namely Yala, Pattani, Narathiwat and 4 districts in Songkhla (Chana, Thepha, Bai Yoi and Na Thawi) will receive FiT Premium at the rate of 0.50 baht per unit throughout the project life, as the details below :

Alternative Energy Development Plan (AEDP)

1. Power plants according to the government's promotion policy

The government's promotion of renewable energy-generated electricity is aimed at resolving common social problems, such as community waste including promoting the production of electricity from biomass and biogas in targeted areas throughout the three southern border provinces, among other things, which entails integrating collaboration between government, public and private sector to obtain local growth objectives affecting the area's stability, income distribution, and job creation. The best use of available resources to achieve operation's objectives are as follows :

- Build a system of integration and participation covering the public, community and private sectors, affecting security distributing income and employment to local communities
- Create economic growth and enhancing the wealth of the community
- Strengthen the security of electric power of the country
- Promote the use of local resources to their fullest potential
- Decentralization of authority from central to local/regional
- Create a sense of ownership in the community in the area and maintain the power transmission-distribution system

There are targets to promote renewable energy according to the potential of the area, which is based on information of alternative energy development and energy conservation, with a total target of 520 megawatts, consisting of :

- 400 megawatt waste power plant
- 120 megawatts Pracharat biomass power plants in the 3 southern border provinces

2. New renewable energy power plants and energy conservation measures

The renewable energy power plant will consider procuring electricity from renewable sources in order to maximize the country's remaining renewable energy potential and to accommodate changing consumer behavior, including the effects of disruptive technology on the electric power industry, while continues to be consistent with the COP21 agreements consisting of utilizing biomass, biogas, and solar energy, solar buoyancy power in conjunction with hydroelectric power plants and other renewable energy sources with the objective of purchasing to keep retail electricity prices stable. Additionally, it considers future energy conservation measures that are both reliable and cost effective which can compete with renewable energy power plants.

Renewable Energy/ Energy Conservation	Contract Production Capacity (Megawatts)	Reliable Production Capacity (Megawatts)
Solar energy*	10,000	4,250
Biomass	3,376	2,296
Biogas	546	325
Solar buoyancy in conjunction with Hydroelectric power plant	2,725	1,158
Wind power	1,485	189
Industrial waste	44	26
Measures to conserve electrical energy	-	4,000
Total of the year 2037	18,176	12,244

- Note***
1. There will be a solar energy project (Public Solar) 100 megawatts per year for a period of 10 years
 2. Renewable energy procurement should be carried out on a competitive basis that does not exceed the average wholesale rate (Grid Parity).



Energy Efficiency Plan (EEP)

When the electricity energy conservation plan is included in the PDP plan's power allocation, it will be considered a type of power generation source focusing exclusively on electrical energy conservation that can be demonstrated to be convincing and compete on a price level not exceeding Grid Parity, with a potential for energy conservation of approximately 4,000 megawatts that can be divided into three strategies : mandatory, supporting, and promoting sectors. The strategies can be summarized as follows :

Measures/Projects	Economical Effect (Megawatts)
(1) Mandatory strategy	3,745
• Improvement and modification of machines/ equipment	2,476
• Project for studying energy efficiency standards of industrial plants (Factory Energy Code : FEC)	44
• Measures to enforce building energy standards (Building Energy Code : BEC)	800
• Project to expand measures to reduce electricity consumption and energy efficiency	425
(2) Support strategy	256
• Combined Heat and Power	226
• Financial Measures	30
(3) Promotion strategy	-
• Energy Management	-
• A study project to prove the results of measures to reduce electricity consumption and energy efficiency.	-
• A pilot project to prove the results of measures to reduce electricity consumption and energy efficiency.	-
• Database system development and Big Data management	-
• Building energy awareness	-
• Developing the potential of energy personnel	-
Total	4,001

Source : PDP 2018 REV.1, Energy Policy and Planning Office, Ministry of Energy

Business overview of the production and distribution of electricity from renewable energy in Thailand

Trends in Thailand's renewable energy business of generating and distributing electricity will move in the same direction as the renewable energy equipment business. They must rely heavily on government promotion of investment because renewable energy is typically used to generate electricity due to the higher cost of electricity generation when compared to other fuels (except nuclear power plants), investments in the commercial production and distribution of renewable energy have a long payback period and a low rate of return. Thus, the majority of electricity generated from renewable energy sources in the past has been generated from waste materials such as garbage, rice husks, or bagasse, which are less expensive, and produced at a low power level for use in the relevant industries and is not produced commercially or publicly selling in any way. However, due to current government support, and despite the switch from the old Adder system to the Feed in Tariff, regarding electricity produced from renewable energy, power producers and various businesses are increasingly interested in investing in electricity generation from various renewable energy sources, with the goal of investing in production for distribution to sell to government agencies in order to achieve the goal of renewable energy generation.

Regarding the business of producing and selling electricity from renewable energy, especially wind and solar energy, it tends to grow continuously in the future from the support of the government., which can be seen from the power generation target that announced in the invitation to purchase electricity from renewable energy in the form of Feed-in-Tariff for the year 2022 – 2030, to purchase the wind energy fuel up to 1,500 megawatts and solar power up to 2,368 megawatts, and the government also promotes energy storage technology, by announcing the purchase of electricity from ground-mounted solar energy combined with energy storage systems up to 1,000 megawatts. Since Thailand is near the equator, the potential for electricity generation from solar energy is quite high, allowing most of the country to receive sunlight continuously throughout the year. As a result, the electricity generation from solar energy and energy storage in the energy storage system are efficient.

According to the PDP 2018 REV.1 plan, the government's purchases of electricity can be divided into 3 parts as follows :

1. Purchasing electricity from neighboring countries; Purchase of 9,000 megawatts from the Lao People's Democratic Republic, The Republic of Union of Myanmar and the Kingdom of Cambodia with the amount of the purchase has not yet been specified.
2. Purchasing 520 megawatts of renewable energy in accordance with the government's promotion policy, and purchasing 18,176 megawatts in accordance with the new renewable energy plan and the energy conservation plan.
3. Conserving energy in the electricity sector in accordance with the Energy Efficiency Plan (EEP), which includes mandatory, supporting, and promoting sectors totaling 4,000 megawatts.

In addition, the PDP 2018 REV.1 plan also focuses on promoting the use of renewable energy in the solar rooftop group of people. With the reducing cost of installing solar power plants on the roof and on the ground, the value is reduced to the point that the cost of electricity production per unit when compared to the purchase of electricity from PEA and MEA can be estimated at around 12%-30%. As a result, the demand for rooftop solar power systems has increased since 2017, especially from the private sector wishing to improve the energy use structure of the business. They desire that the Company to provide services in a variety of formats, including :

1. Appoint the Company as an investor in and supplier of electricity generated by solar systems installed on customers' roofs by establishing a discount rate for electricity sales and a payback period for the project's ultimate goal, which is the transfer of such assets to the customer at the conclusion of the project.
2. Appoint the Company as a contractor to install solar-powered electricity generation systems on the roof, whereby the customer is responsible for all investments made in this section.

With the Company's determination to be a leader in clean energy, it has expanded its business into the market for solar rooftop electricity generation (Private PPA). In 2022, the Company has already signed several rooftop solar energy project agreements with the private sector. The construction of 82,141.88 kilowatts has been completed and is currently underway. In addition, the Company has cooperated (Synergy) to establish a joint venture with leading companies, namely Jay Mart Public Company Limited, Singer Thailand Public Company Limited, Origin Energy Co., Ltd. and Innosprout Holding Co., Ltd., a subsidiary of Pruksa Holding Public Company Limited, to expand the market for solar rooftop installation in both industrial and residential types.

An Overview of Japan's Electrical System

In October 2020, the Japanese government announced that it would reduce greenhouse gas emissions to achieve the Carbon Neutral target. However, according to 2019 data, Japan still remains heavily reliant on fossil fuels for more than 88 percent of primary fuel energy as illustrated in Figure 1. In order to accomplish this goal, the government has developed an energy strategy with the goal of increasing the share of renewable energy in electricity generation to 22% - 24%, or 13% - 14% of primary fuel energy by the year 2030 as illustrated in Diagram 2, which will have the primary capacity from solar energy exceeding 60 gigawatts, which is an increase by more than 20% over the 2019 data at 50 gigawatts capacity, as illustrated in Figure 3

Figure 1 Main fuel consumption ratio until 2019

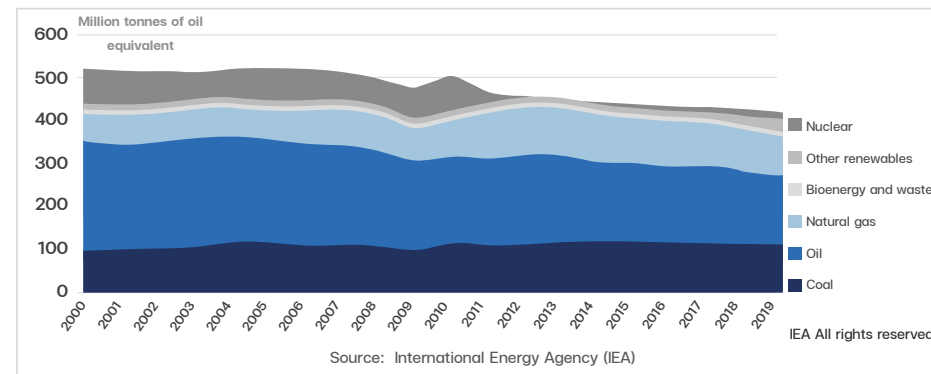
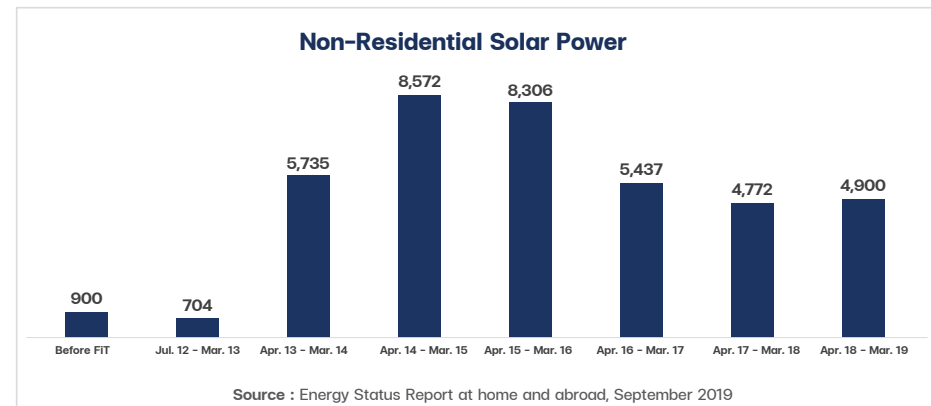


Figure 2. Plan to increase the use of renewable energy in electricity generation and its share of main fuel energy by 2030

Graph 1 The amount of power disposed of power classified by time



Graph 2 Power Plant Status Classified by Power

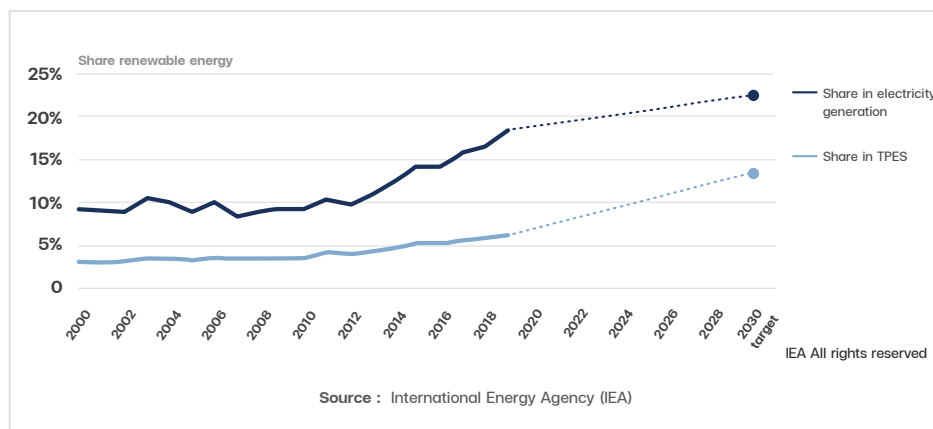
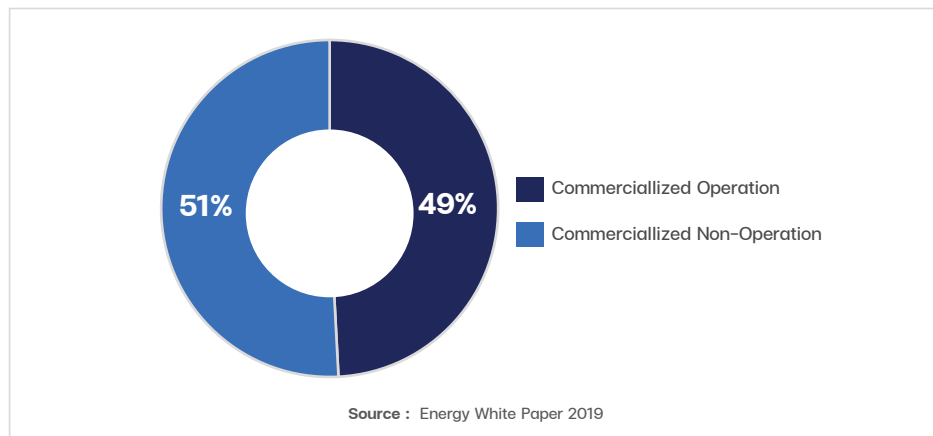
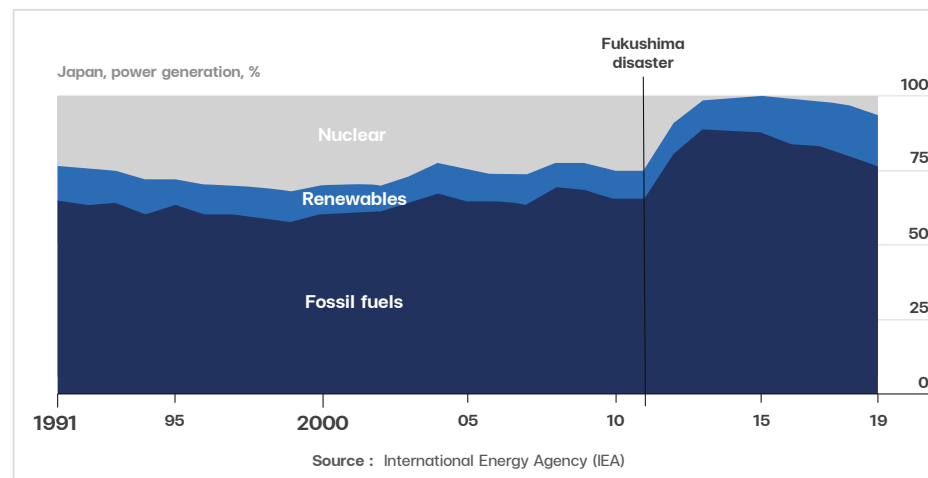
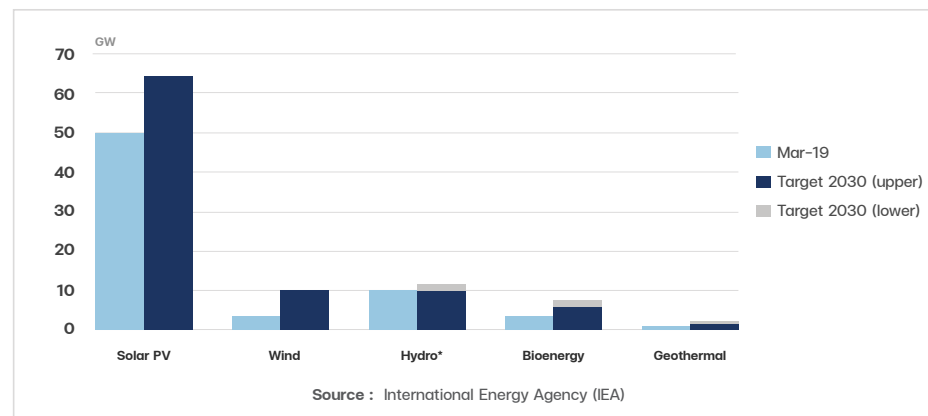


Figure 3 : Number of electricity generating capacity from renewable energy in 2019 and targets in 2030



Business overview of the production and distribution of electricity from renewable energy in Japan

Running a power generation business in Japan, especially solar power, will be more challenging due to two main factors :

1. Modification of the purchase price from the FiT system to the bidding system. In other words, the Japanese government has continuously reduced the price of FiT from a high price of 40 yen/kWh in fiscal 2012 until fiscal year 2017. The government has changed the method of price determination from being determine by the government to an auction by project operators larger than 250 kilowatts in order to reduce the purchase price in line with the lower cost of solar power generation.

Report of the average bid price according to the results of the last auction (10th time), in 2021 the price ceiling has been set at 10.5 yen/ kWh. The average asking price of the winning bidder is 10.31 yen/ kWh. The auction price tends to decline steadily from the 1st auction in 2017, which was in the range of 17.2-20 yen/ kWh with a number of constraints such as increased price competition and difficult terrain to develop projects requiring high investment capital. The Company foresees that the purchase price auction policy will affect the search for new projects to invest in because the return on investment is not in accordance with the Company's investment policy.

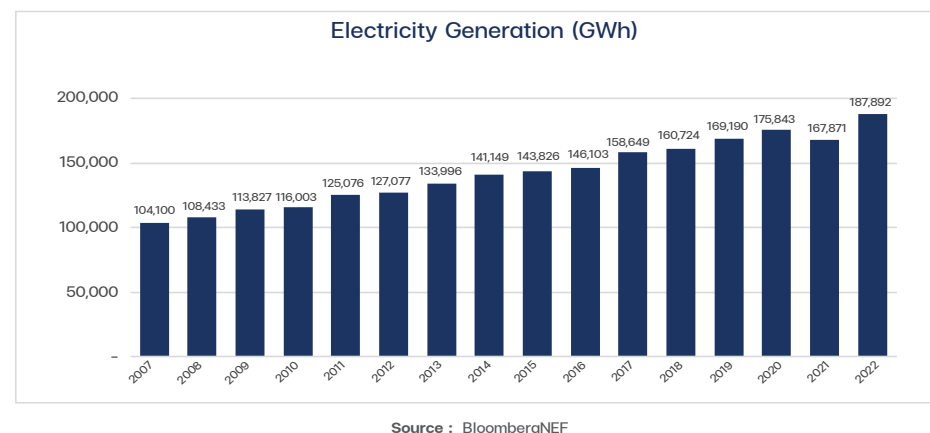
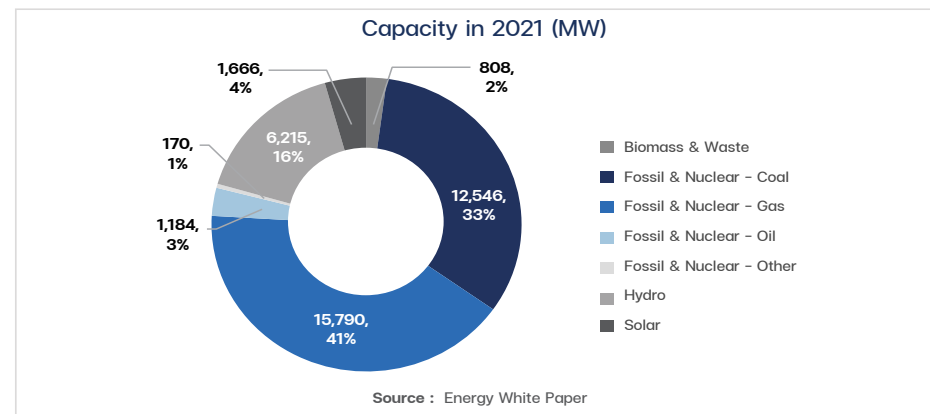
- Measures to stimulate projects that are still under development, especially projects that were licensed before fiscal year 2015, causing the Company to sell 2 projects under development and construction to reduce the risk of delays in the project development process and construction. This may cause the period of electricity sales to be reduced from the previous projection.

However, the Japanese government maintains a policy encouraging the use of renewable energy to generate electricity especially large-scale solar and wind energy projects that legislation amending the Electricity Business Act and related statutes have been drafted in order to initiate the Feed-In-Premium (FIP) in which operators earn revenue from electricity sales in addition to receiving financial assistance throughout the FIP period. Nonetheless, the effort to define the rules further, including the standard for calculating the system's reference price must be carried out. Once approved, the draft law will take effect on April 1, 2022.

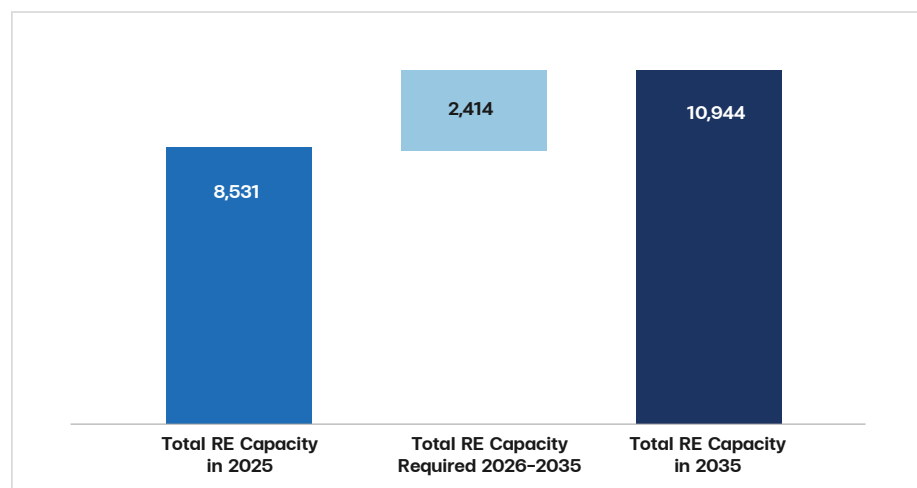
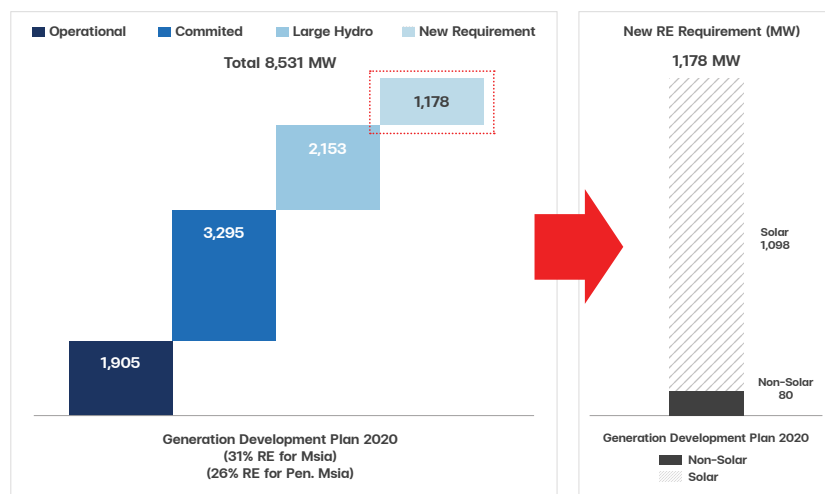
As a result, the Company continues to seek investment opportunities in Japan because it has great knowledgeable about the business environment. The Company has begun to consider investment opportunities in other alternative energy sources, primarily in response to government policies, as well as international investments.

Overview of the Malaysian Electrical System

After the crisis of the COVID-19 epidemic situation in 2022, Malaysia's economy began to expand, with Malaysia's gross domestic product (GDP) in the third quarter of 2022, by expanding 14.2%. This was driven by a continuously recovering labor market, including strong exports and the government continues to use policies to support the economy. As a result, the economy throughout 2022 will grow at a higher rate of 7% than the previous forecast of 5.3% - 6.3%, considering from domestic electricity production, it was found that in 2021, 15,790 MW of electricity was generated from natural gas, representing 41% and from coal, 12,546 MW, representing 33%. In addition, there is a capacity to produce electricity from renewable energy, including hydropower in the amount of 6,215 MW and solar power in the amount of 1,666 MW, accounting for 20% of the total. In Malaysia, the electricity consumption rate has increased by an average of 4% per year from 2006 to 2021, which in 2021, the electricity generation reached 187,892 GWh, as shown in the picture below :



According to the economic growth, the government has a long-term plan to develop renewable energy generation to generate clean source of energy of 31% by 2025 which will make Malaysian have 31% source of renewable energy from its total energy source. Malaysia will need 1,178 megawatts consisting of 1,098 megawatts of solar energy and 80 megawatts of other renewable energy sources, as illustrated in the figure below. Additionally, Malaysia has set a long-term goal of increasing its clean energy generation capacity to 40%, or 2,414 megawatts, as shown in the picture below :

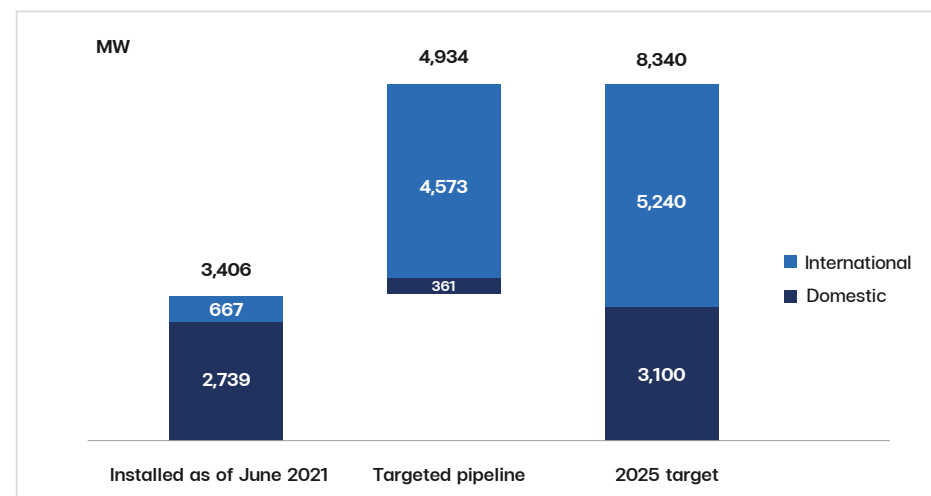


Source : Report on Peninsular Malaysia Generation Development Plan 2020 (2021 – 2039)

Overview of the business and distribution of electricity from renewable energy in Malaysia

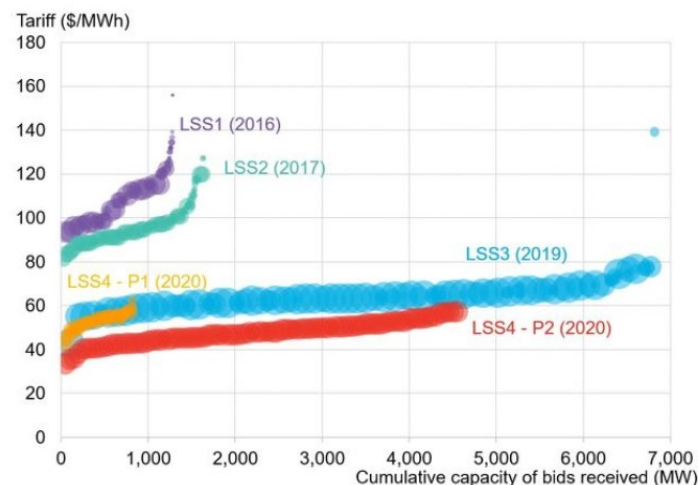
Since 2017, Malaysia has had policies to promote the use of renewable energy, particularly solar power plants because the Malaysian government recognizes the region's potential. Additionally, the cost of solar energy plant construction has decreased significantly making the cost of solar energy generation per unit became competitive with other forms of energy generation. As a result, Malaysia's government is promoting increased solar energy generation including the expansion of the power plant's capacity

and the number of authorized persons applying for a power purchase agreement. Malaysia's government intends to eliminate carbon dioxide emissions entirely by 2050, with a goal of increasing renewable energy generation to 8.3 gigawatts by 2030 from current levels. As of June 2021, there are already 3.4 gigawatts renewable energy (Source : BloombergNEF), as shown in the picture below :



Source: Tenaga Nasional Berhad Analyst Briefing Presentation – Quarter 2/2021, BloombergNEF

The Malaysian government has been very supportive of renewable solar power plants by allowing the private sector to take ownership of Large Scale Solar (LSS) projects, by participating in the bidding according to the conditions set by the government agency, which currently consists of LSS1 LSS2 LSS3 and LSS4 projects. For the LSS1 project, 19 companies won the bidding for a total of 451 MW in December 2016. LSS2 project has 41 companies won the bidding with a total capacity of 562 MW in December 2017. As for the LSS3 project with 5 companies winning bids for total capacity of 562 MW in December 2019 and LSS4 project with 30 companies winning bids for total capacity of 823 MW in March 2021. The LSS4 project has electricity prices ranging from Malaysian ringgit 0.185 – 0.248 per kWh for 10 – 30 MW capacity and between Malaysian ringgit 0.177 – 0.197 per kWh for the generating capacity of 30 – 50 MW, the electricity rate has been declining ever since the LSS1 project, as shown in the figure below.



Source : BloombergNEF

In other renewable energy support, the government has supported rooftop solar power generation, including hydropower, biogas and biomass power plants, by providing tax incentives to entrepreneurs in the said renewable energy, which the Malaysian government has set a target of 31% of the electricity produced from renewable energy by 2025.

The Company has worked with partners who are local investors to jointly develop a 29.99 megawatts solar power plant project, Large Scale Solar PV (LSSPV), in Malaysia. Currently, the construction of the project has been completed and the power distribution has been commercialized since 31 December 2020.

Source : www.bot.or.th, www.eppo.go.th, www.egat.co.th, <http://www.drborworn.com>, <https://www.st.gov.my>

Overview of the power system of Vietnam

The Ministry of Industry and Trade of Vietnam (MOIT) has submitted a proposal for the 8th National Power Development Plan (Power Development Plan VIII – PDP8) for the year 2021-2030 and a vision to 2045 and revised to align with United Nations Conference on Climate Change (COP26), with the goal of moving towards a Net-Zero by 2050. As a result, Vietnam has to adjust its energy source structure plan by focusing on renewable energy and reducing coal-fired thermal power generation. The PDP8 estimates that up to 2030, the installed capacity of Vietnam’s power sources will reach 155 GW, and by 2045 it may be between 261,951 - 329,610 MW. The electrical structure for each phase is as follows :

Source of Electricity	Year 2030 (%)	Year 2045 (%)
Thermal power from Charcoal	28.3 - 31.2	15.4 - 19.4
Thermal power from gas (including LNG)	21.1 - 22.3	20.6 - 21.2
Large, medium and pumped-to-storage hydropower	17.73 - 19.5	9.1 - 11.1
Renewable energy (wind, solar energy, biomass) *	24.3 - 25.7	26.5 - 28.4
Import	3 - 4	3.1

* Year 2045, adding electricity from small hydropower in the renewable energy group.

From the above table, the proportion of electricity from renewable energy to the total installed capacity in the year 2030 is 24.3 - 25.7% and until the year 2045 will be 26.5 - 28.4%, which is necessary to consider the proportion of production capacity from renewable energy sources to balance with the carrying capacity. However, when implementing a renewable energy project, the development guidelines must be set appropriately with the area and duration of the project, by giving importance to development in areas where the electricity network can support the release of electricity, especially in the northern region (2021-2030 period).

The PDP8 plan has determined to increase renewable energy (Wind power and solar power), 31,600 MW (previously 17,000 MW), accounting for 24.3% of the total electricity source structure, by slightly increasing the production capacity of wind energy. However, in the year 2030, the electricity generation from solar energy has a total capacity of 18,390 - 21,390 MW, by focusing on distributed development, mainly for self-use and has not yet promoted floating solar power generation. Meanwhile, wind power has a total capacity of 11,800 - 12,500 MW, with emphasis on promoting offshore production to reach 5,000 MW by 2030, and increase to 40,000 MW in 2045. In addition, Vietnam will promote the generation of electricity from waste, biomass, green hydrogen in the future.

According to PDP8 plan, it is estimated that from 2021 – 2030, Vietnam will need investment in the electricity sector of about 99,320 - 115,960 million US dollars per year, which is an investment to develop electricity sources approximately 85,700 – 101,550 million US dollars, and for the year 2031 - 2045 will require an investment of about 180,100 - 227,380 million US dollars per year.

Source : Thai Business Information Center in Vietnam Royal Thai Embassy in Hanoi

The Vietnamese government has a policy to continuously push for renewable energy from solar energy, wind energy, and others. The policy of purchasing power from the private sector which is licensed as a system of Feed-in Tariff (FIT). The supply of electricity is divided by type and starting date as follows :



Type of solar power plant (Unit : US cent/ kilowatt hour)	Supply of electricity before June 30, 2019	Supply of electricity before December 31, 2020
Solar Farm	9.35	7.09
Solar Roof	-	8.38
Floating Solar	-	7.69

Type of wind power plant (Unit : US cent/ kilowatt hour)	Supply of electricity before October 31, 2021	Supply of electricity after October 31, 2021
Coastal wind power plant	8.5	Under consideration
Offshore wind power plant	9.8	Under consideration

Overview of the business and distribution of electricity from renewable energy in Vietnam

The Company focuses on the renewable energy business in Vietnam by focusing on solar and wind power which is a renewable energy power plant that the Company has expertise in developing and constructing. The Vietnamese government currently estimates that the country's energy consumption will increase to 234.6 terawatts in 2020 and 506 terawatts by 2030. There is a plan that the solar power generation capacity will be 17,240 megawatts in 2025 and 18,640 megawatts in 2030 and wind generation capacity will be 11,320 megawatts in 2025 and 18,010 megawatts in 2030.

Competition

The competition in the power generation business is likely to become more intense from continuous investments by major power producers. As the latest PDP plan requires the presence of the main power plant in the sector to have transmission line readiness and provide opportunities to purchase electricity from the private sector, especially fuels from renewable energy. As a result, large operators (IPP/ SPP) with financial and technological potential are likely to expand their production capacity and invest in new power plants from renewable energy. The group of construction contractors, engineering/ procurement, design, and construction who has expertise in electrical installation and solar cell equipment/ technology manufacturers have plans to invest in the production of electricity from renewable energy as well, thus, making the competition trend increase. However, the future of power generation business is still facing challenges from using production innovations/technology to develop power plants from various types of renewable energy such as solar, wind and hybrid in terms of production efficiency, environmental friendliness, and cost.

In addition, the policy that is open to the private sector to generate more electricity in the form of a Private Power Purchase Agreement allows consumers to produce and sell electricity by themselves, especially the production of electricity from the sun in which the current production cost is greatly reduced. Therefore, it is expected to motivate consumers to increasingly produce electricity for their own use.

However, the Company is a manufacturer and distributor of electrical equipment, as well as being a one-stop installation and maintenance service provider with cost and quality efficiency. As a result, the Company still has high competence and competitive advantages against competitors in the same market.

2. Engineering and Turnkey Business

2.1 Nature of Business

1. Renewable Energy Power Plant Construction

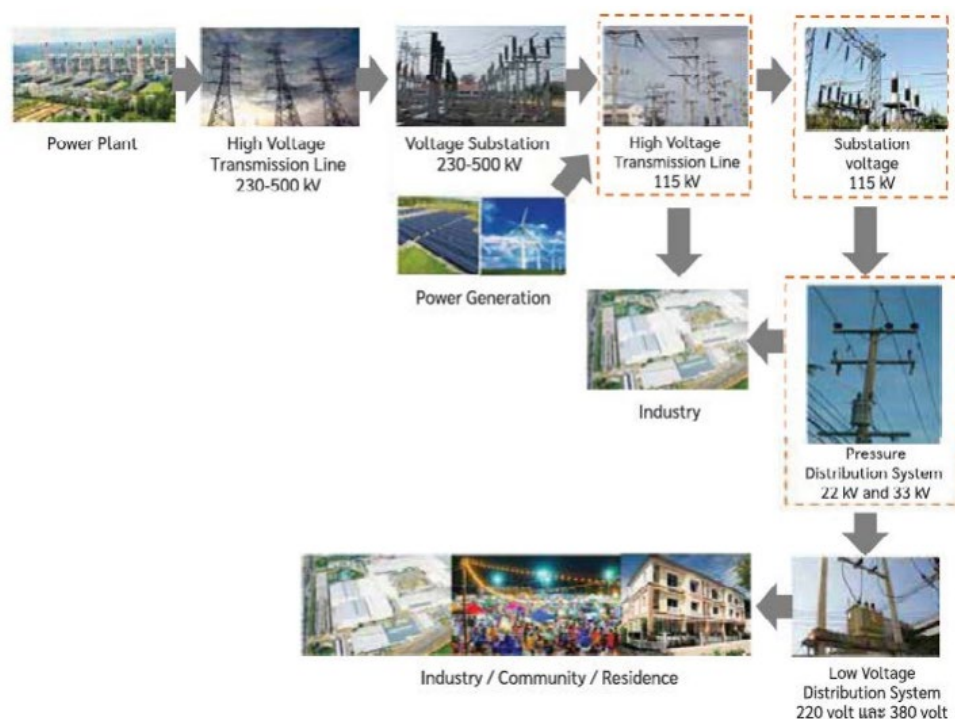


The government's policy to promote electricity generation from renewable energy together with the Company's experience in renewable energy business, as a distributor of products used in power plants and a provider of engineering services, help the Company to expand into a business of comprehensive renewable energy power plant construction by providing consulting services in engineering, design, and construction of renewable energy power plants. At present, the Company has undergone power plants construction business for associated, subsidiaries, and other companies, including those that

have been completed and are under construction, totaling more than 372.06 megawatts. In addition, as electricity generation from renewable energy in Thailand is still in early stage, therefore it tends to grow continuously and is an opportunity for the Company to expand its business. In 2022, Gunkul Power Development Company Limited (“GPD”) has signed the construction of a solar power systems to private customers in the amount of 2 projects with a total value of approximately 1,500 million baht.

2. Construction of Substation, Transmission System and Underground System

The Company operates the business of constructing electrical systems through GPD and Future Electrical Control Company Limited (“FEC”), which are subsidiaries that the Company holds 99.99% of shares and 99.99% of shares respectively. The services are shown in the dotted line as shown in the diagram below.



Structure of transmission system and power distribution system

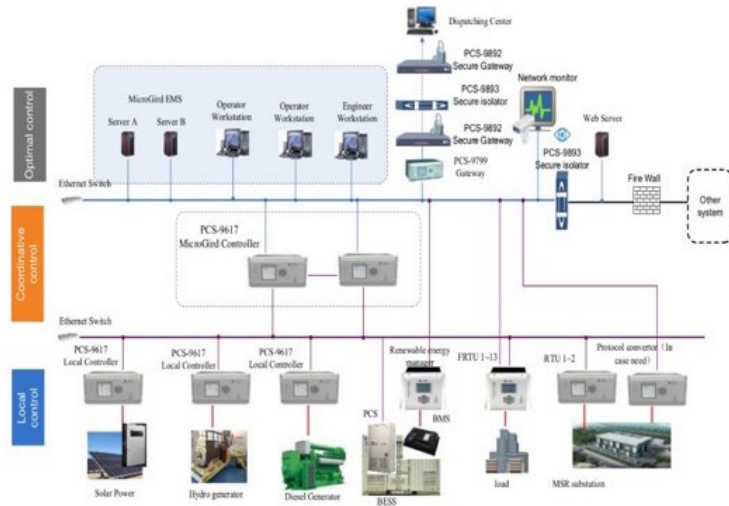
In 2022, the Company has constructed transmission line, sub-Station, including underground electrical work for the Provincial Electricity Authority, Metropolitan Electricity Authority, and private agencies totaling 38 projects.

3. Procurement and installation service of submarine cables and equipment associated with all types of submarine cables

As the government and PEA’s policies have planned to implement various projects to the region to spread prosperity, promote well-being and improve the quality of life by constructing electrical system on 61 inhabited islands and on 41 inhabited islands that already have electricity, divided into an installation of diesel power plant on 5 islands, connecting the electrical system from mainland to islands by placing cable poles on 13 islands and connecting with submarine cables on 23 islands. It can be seen that some islands continue to struggle with insufficient electricity, therefore PEA is aware of electrical systems development to ensure that all areas in the country have adequate access to electrical power. In this regard, the submarine cable construction project is one of the projects being promoted to replace and increase the ability of electricity supply in order to solve electricity distribution and power outages problems, develop electrical systems in order to increase the capacity and the stability of electricity supply, as well as, supporting a growing demand of electricity of the islands, which are important tourist destinations with a relatively high rate of economic growth. At present, the Company has completed the construction of 2 projects, namely the 22KV submarine cable maintenance project in Koh Si Chang, Chonburi Province and the 33 KV submarine cable construction project at Koh Phra Thong, Phang Nga Province.

4. Design, supply and installation of Microgrid System, Energy Storage System, and related intelligent electrical equipment

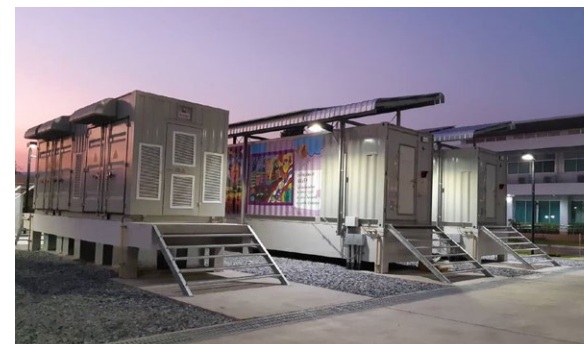
Due to the government policy and the Energy Network Development Plan in accordance with the 11th National Economic and Social Development Plan, coupled with the growth strategy of environmentally friendly quality of life (Green Growth), the Company saw an opportunity to expand the renewable energy business in terms of proper management of renewable energy. Therefore, the Company participated in the development and won the bidding for the Provincial Electricity Authority’s Microgrid Power System Development Project in Mae Sariang District, Mae Hong Son Province, valued at 132.90 million baht. The duration of construction was 360 days. In addition, it is considered as Thailand’s first pilot project.



Picture depicts the layout of the intelligent control system for Microgrid Development Project. Mae Sariang District, Mae Hong Son Province, of Provincial Electricity Authority



Picture depicts Microgrid controller of Microgrid Development Project at Mae Sariang District, Mae Hong Son Province, of the Provincial Electricity Authority.



Picture depicts Battery Energy Storage System, size 3 megawatts/ 2.2 MWh of Microgrid Development Project at Mae Sariang District, Mae Hong Son Province, of the Provincial Electricity Authority.

2.2 Industry, Market, and Competition

Business Overview

From the government's policy to promote electricity generation from renewable energy, including the potential of Thailand to generate electricity from renewable energy, companies both domestically and internationally have expressed interest in investing in the business of electricity generation from renewable energy. The Company's business of renewable energy power plant construction will have a growth rate according to an increase of size and number of renewable energy power plants. And as previously stated, electricity generation from renewable energy in Thailand has a potential to grow significantly in the future. In addition, the Company has the potential to construct renewable energy power plants through a fully integrated EPC (Engineering, Procurement, and Construction), and plans for a continuous business development, both domestically and internationally.

At present, the Group has a backlog of approximately 4,300 million baht and aim to have a cumulative target of 10,000 million baht this year, and will gradually recognize revenues of 2,400 million baht this year. This is due to the diversity of projects of government sectors that arise with purposes of expanding the city and bringing cables underground.

Competition

At present, numerous construction companies, both domestic and international, are bidding on renewable energy power plant construction projects. However, as the Group is experienced in the construction of solar power plants as the first in Thailand and has its own power plant, the Group therefore has a significant bargaining power with manufacturers of solar panels, wind turbines, and other equipment used in power plant. Additionally, the Group has developed products and equipment used in their renewable energy power plants, and the Group is able to assist owners of renewable energy power plants in providing various permit services for the construction of power plants, including BOI, Ror.Ngor. 4, and coordination with the electricity authority and other government agencies. This results in the power plant owner placing their trust in the Company and choosing to use its services. These factors give the Company an advantage over competitors in the construction of renewable energy power plants. In 2022, the Company received additional rooftop solar power plant construction projects for private customers.

3. High Voltage Equipment Business

3.1 Nature of Business

1. Business of production, procurement and distribution of equipment for electrical systems both domestically and internationally



G.K. Assembly Co., Ltd. (GKA), G.K. Power Products Co., Ltd. (GKP) and K.N.P. Supply Co., Ltd. (KNP) and GAP Supply Co., Ltd. (GAP) are the Company's subsidiaries that operating business of producing, procuring, and distributing equipment for electrical system that encompass all facets of the power transmission and distribution system, from generation to consumption. The Group is widely regarded as a market leader, particularly in terms of product variety, as evidenced by the more than 5,000 products available for sale to meet the diverse needs and applications of various groups of customers, including products manufactured in the Group's factories and those procured from manufacturers whose products are recognized for their quality and standards, both from domestic and abroad, including the United States, Germany, Korea, Sweden, Japan, and the People's Republic of China, among others.

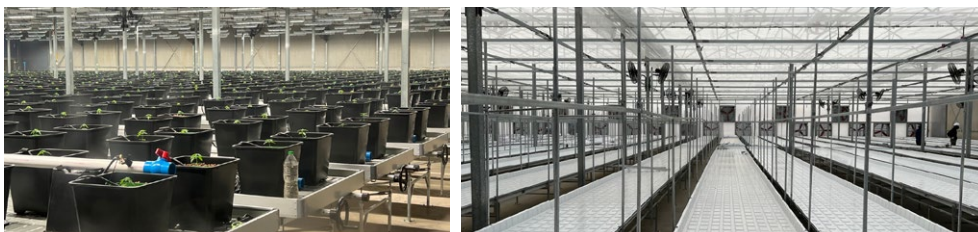
This can be classified into 5 categories based on the intended use :

1. Producing and distributing equipment for protecting and disconnecting electrical systems for distribution and transmission lines, ranging from medium to high voltage of 115kV, such as a switch that opens when an SF6 gas load is detected, which can be controlled remotely (SF6 Load Break Switch, Surge Arrester, or Remote Controlled Switch), Disconnecting switch, Fuse cutout, Air Break switch, and Transformer, etc.
2. Producing and distributing Grounding equipment and lightning protection devices (LPS) or lightning protection to prevent danger from electric leakage or external overvoltage such as Air Terminal, Exothermic Welding, etc.
3. Lighting equipment and electric energy meter such as Smart Meter, Street Lamp Set, Photo Control Switch, and Street Lighting Control Relay, etc.
4. Producing and distributing hardware, and structures used in the installation, maintenance, and expansion of distribution systems, power transmission lines, and substations ranging from medium to high voltage of 115kV for the purpose of supplying electric power to consumers, such as welding equipment, Cable, Wiring Harness, Protective Cover for the Live Part, Preformed, Cable Spacer, Connector, Cable Termination, Cable Splicing, Insulator, and the hemp greenhouse with table to create a ready-made hemp cultivation system, as well as hemp planting equipment and planting pots.

Hemp greenhouse



Planting table with pots



5. Producing and distributing tool and personal safety equipment that enable the operators to work quickly and safely, such as Safety Belt for climbing, Shorting Circuit Earthing set, 22kV, 33kV, and 115kV systems, disconnect sticks, rubber gloves, industrial gloves, helmets, and measuring and testing equipment, etc.
6. Test control by an international standard-compliant test room operating system that has been certified by the National Institute of Industrial Standards for testing High Voltage equipment in accordance with the ISO/ IEC 17025 test laboratory accreditation standard.



2. Business of production, procurement and distribution of Energy-Saving Products and Appropriate Alternative Energy

- The Company manufactures, assembles, procures, and distributes light bulbs and LED lamps (LED) for use both inside and outside the building, including street lamps, floodlights, and those powered by a solar system and battery, BIPV Glass and Flexible Solar PV, which are suitable for architecture or landscape improvement. It also carries out the service of electrical system improvement in office buildings or factories; providing consulting services for managing alternative energy systems that are suitable for customers; engineering, procurement and commissioning of electrical systems or power plants such as Solar Rooftop, Solar Floating, Solar Water Pump, Solar Air Conditioner or Organic Rankine Cycle System (ORC) for Waste Heat Recovery, etc., which operates under Gunkul Utility and Energy Co., Ltd. in order to assist in the growth of the business, market, and customer base for a group of electricity users looking to save energy or improve the efficiency of their business's electrical system in a broader and deeper way.

Gunkul LED product (High Power Product)



LED High Ray LED Floodlight/
LED High Mast Light LED Streetlight
(Optional: Solar LED Streetlight) LED Ex-Proof Light

Gunkul LED Lighting Product (Low Power Product)



SMT Production Line



Assembly Line



GLO



Lighting Measurement Machi

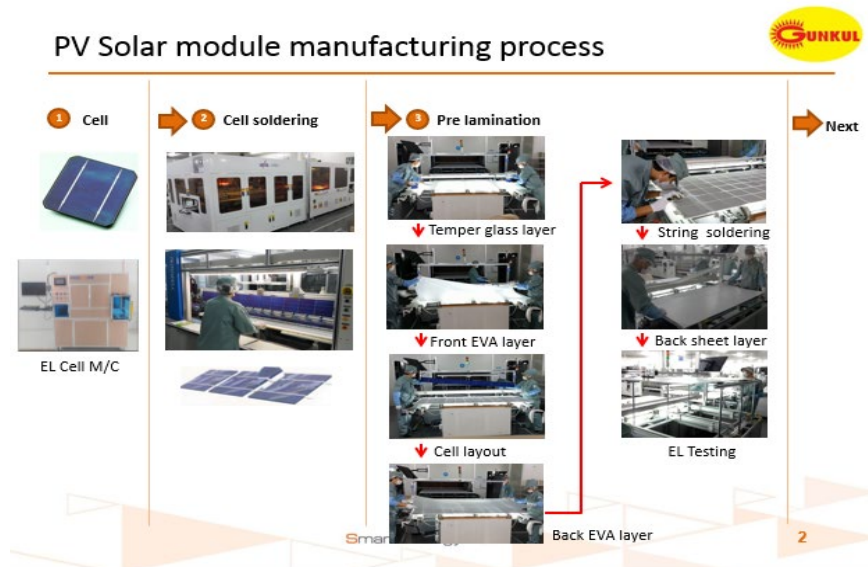
By producing products that adhere to international standards and are of superior quality, it has earned the trust of a diverse customer base, including project customers such as sugar factories, steel mill groups, hospital groups, bank groups, and warehouse rental service providers, as well as government customers, universities, and distributors in Bangkok and other provinces throughout the country.



The Company focuses on developing and increasing its competitiveness by providing comprehensive services to customers with an emphasis on energy conservation. These services are supervised by a team of expert engineers and highly experienced technicians to ensure that customers can trust the Company to deliver goods and services that meet international standards and are of the highest quality.

- Producing and distributing solar panels, as well as procuring equipment for solar energy generation systems.

Production of solar panels according to TIS 61215 and TIS 2580 standards



The Company has continuously optimized the efficiency and manufacturing technology of solar panels to increase the power output per panel in the future. In production, the Company adheres to international quality standards and makes use of automated mechanical production technology, which is consistent with the government's policy of accelerating the country's transition to Thailand 4.0 on renewable energy, and ensures that people have access to electricity on a continuous basis. Additionally, it also supports the green energy policy to make the country a low-carbon society by moving toward net zero emissions as set.

3.2 Industry, Market and Competition

Business Overview

- Business of production, procurement and distribution of equipment for electrical systems**

The business growth trend is inextricably linked to the electricity generation business. The direction of growth is determined by the demand for electricity and the amount produced in the country,

as well as the expansion of transmission lines and power distribution systems, and the government policies to develop the country's power generation. Various relevant agencies, including the Electricity Generating Authority of Thailand and the Ministry of Energy's Energy Policy and Planning Office, forecasted future electricity demand in Thailand and then established the framework for the power development plan, which will be used to plan investments in various development projects to support the growing demand for electricity. According to information contained in the PDP 2018 REV.1 plan, the 3 power agencies, EGAT, MEA, and PEA, intend to invest in the construction of transmission lines and substations, as well as to improve and expand the electric power distribution system, including a plan to convert the aerial cable system in Bangkok area and major cities throughout the provinces to underground power cable. Additionally, there are electrical system development plans to support the establishment of special economic zones for 2 duration period in 10 border provinces; a plan to develop an undersea cable system to Koh Samui District, Surat Thani Province to improve the electrical system's stability; a power transmission system project to support the project aiming to increase the Bhumibol Dam's water capital; including an electrical system development project in accordance with Thailand Smart Grid Development Master Plan with total investment value of more than 100 billion baht. This encourages private sector to expand production capacity and investment, and together with a support from government agencies in transportation infrastructure development projects and urban public transports, namely the construction of electric trains in Bangkok and its vicinities under the 12th National Economic and Social Development Plan (2017-2021), this contributes to a continuous growth of electrical equipment industry in Thailand.

- Business of production, acquisition, and distribution of equipment for renewable energy systems**

The business of production, acquisition, and distribution of equipment for renewable energy systems tends to expand continuously, by having the government as a leader and supporting investment through the following factors :

- The PDP 2018 REV.1 plan requires the purchase of electricity generated by renewable energy sources, which is divided into the waste power plants with a capacity of 400 megawatts, Pracharat biomass power plants with a capacity of 120 megawatts in 3 southern border provinces, and renewable energy power plants powered by biomass fuels, biogas, solar hybrid, and wind energy, as specified in the Renewable and Alternative Energy Development Plan (AEDP20218). Permission to install a solar rooftop system for distribution to factories or one's own business; or investment in a solar rooftop system for the purpose of freely distributing electricity to the private sector; and plans to purchase additional electricity from renewable sources such as biomass, biogas, solar energy, floating solar energy, or hydroelectric power plants in the future will act as a catalyst for increased investment in renewable energy, resulting in the expansion of the renewable energy equipment business.

- 2) The Board of Investment (BOI) has announced measures to encourage investment in order to boost production efficiency according to the Board of Investment's Notification No. 9/2017 by providing tax incentives to groups that are entitled to privilege under the Notification, such as factories, warehouses, and large buildings. Examples of projects include factories that install solar panels on their roofs and generate electricity for use in their operations to reduce reliance on electricity supplied by Thailand's Electricity Generating Authority. Currently, numerous industrial factories and warehouses are interested in participating in the project.

Competition

The Group's primary customers are the public sector, state-owned enterprises, and private businesses. In general, such customers will determine the entrepreneurs' qualifications to participate in the tender, as well as the bidders' potential and experience as suppliers of equipment for various projects. There are approximately 8-10 entrepreneurs who are bidding against the Group. Although some entrepreneurs sell a variety of products, but currently none of them can be counted as a competitor that sell products across all product categories like the Group. Additionally, since the Group is a supplier and distributor of a various range of products, entrepreneurs in various product categories are treated as the Group's partners.

Furthermore, as the electrical system is considered a fundamental component of the country's infrastructure that the government places a premium on continuous investment every year, it results in the total market value of related businesses to increase consistently according to the government's investment policy. On the other hand, the number of new entrepreneurs is limited, as the business requires capital and the ability to provide products that meet the quality requirements and standards set by customers. As a result, the business competition is not particularly vicious.

The Group is renowned for the high quality and variety of its products. Coupled with over 40 years of business experience, the Group possesses expertise in sourcing high-quality products from a variety of trade partners both domestically and internationally. Being the owner of factories also enables the Group to better control quality and cost of parts, and more flexible in preparing products for sale to customers. Furthermore, as the Group is an entrepreneur that focus on products' quality and conducts a continuous research and development to meet the diverse needs of customers, accordingly the Group's factories have registered their products with the Ministry of Industry and obtained industrial standards certification. As a result, the Group receives a positive reputation and has always been trusted by customers to return and use the Group's services.

For the competition in the Residential Solar Rooftop market, due to a Solar Rooftop system can generate electricity for up to 25 years, most buyers then look for a company with extensive experience in Solar Rooftop systems, is financially stable, and is capable of providing one-stop service. This enables the Company to determine that the competition can be conducted effectively.

4. Ecosystem Business Platform & Innovation

4.1 Nature of Business

The Company recognizes that access to energy is a fundamental human right and every individual must be able to access, comprehend, define, and select the energy that is best for them. On September 3, 2020, the Company established a business unit called "GUNKUL SPECTRUM" to develop a new digital energy business focused on the energy industry, such as the development of a solar panel monitoring system via unmanned aerial vehicle, an e-commerce platform for buying and selling electrical equipment system with searching machine for technicians and service providers, EV Charging Station business, including a peer-to-peer (P2P) energy trading platform, and Virtual Power Plant Platform (VPP Platform) to show the intention to participate in Thailand's transition from the power industry to the sustainable use of clean power (Energy Transition) by integrating digital technology to show a standpoint of being a leader in energy production industry transformation to suit the business in the digital age with the main mission of creating innovative energy sources of the uncertain future to be a bridge that lead everyone to a better life, create a strong ecosystem, and lead the company to become the country's first energy trendsetter.



The new business model under the GUNKUL SPECTRUM will be developed in conjunction with the Company's existing operations, as well as by pursuing new business opportunities and expanding its customer base. Initially, the Company concentrated on B2B (Business-to-Business) and B2G (Business-to-Government) before expanding into the B2C (Business-to-Consumer) market, or market of electricity users. This is consistent with the energy industry's trend that is changing from Centralized toward Decentralized. GUNKUL SPECTRUM is responsible for assessing the feasibility of novel energy technologies and introducing them to Thai people. The Company will transit from being a service provider to an innovator in the energy sector.

The development principle of GUNKUL SPECTRUM is divided into 3 axes :

1. Performance Enhancement : The process of introducing new ideas to improve the efficiency of an organization's operations.
2. Market Expansion : Business expansion into new markets, such as the digital platform business.
3. Leader in Energy Innovation : Being the leader in energy innovation and as Thailand's trend setter.

The objective is to examine technologies that play roles in other industries in order to develop innovative products (Product Innovation) that can be used to penetrate new markets by incorporating blockchain, AI, Social Commerce, and IOT into the creation process. GUNKUL SPECTRUM innovation focuses on partnering with strong business partners and industry leaders in a variety of industries, including SCB10X, AIS SGTech (from Naresuan University), and most recently, real estate development company like Origin Property, to expand energy products that serve as a living solution.

Current Commercial Projects Development and Operation

1. VOLT ENERGY MARKETPLACE

In the ever-growing era of online trading, an e-commerce platform is another way to expand the market, increase competitiveness, and potentially create an Unfair Advantage for the business. VOLT ENERGY MARKETPLACE is a platform that brings together professional rooftop solar installers from across Thailand in an online format and provides matching services to customers interested in comprehensively installing a rooftop solar system. This can transform solar system installation from difficult to simple, convenient, and safe. It is focusing on the solar roof market in order to serve households and SMEs with installation sizes ranging from 3 kilowatts to 100 kilowatts, as well as electricity users with monthly bills ranging from 3,000 baht per month. VOLT has recently expanded its business model to include additional electrical engineering services such as general electrical system maintenance and electric vehicle charger installation in order to strengthen the platform and establish itself as a society of quality electrician.

The VOLT platform services cover :

- 1) Calculate the customer's energy consumption and estimate the appropriate amount of installation.
- 2) Conduct a thorough comparison of local service providers (e.g. price comparison, product quality, warranty).
- 3) Act as a payment intermediary (Secured payment).
- 4) A service for inspection of the installation's quality

VOLT MARKETPLACE
THAILAND'S FIRST SOLAR ROOFTOP MARKETPLACE

volt

ทำโซลาร์ให้เป็นเรื่องง่าย...แค่ปลายนิ้ว

แพลตฟอร์มช่วยค้นหาผู้ติดตั้งโซลาร์ฟาร์มที่ได้รับความนิยมทั่วประเทศผ่านระบบออนไลน์ โวลต์ช่วยทั้งคำนวณขนาดติดตั้ง จัดเรียงและเปรียบเทียบข้อเสนองานให้กับลูกค้าที่สนใจ ดูแลทุกกระบวนการแบบครบวงจร

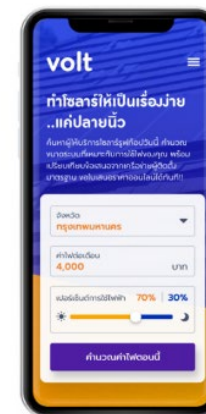


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GUNKUL SPECTRUM

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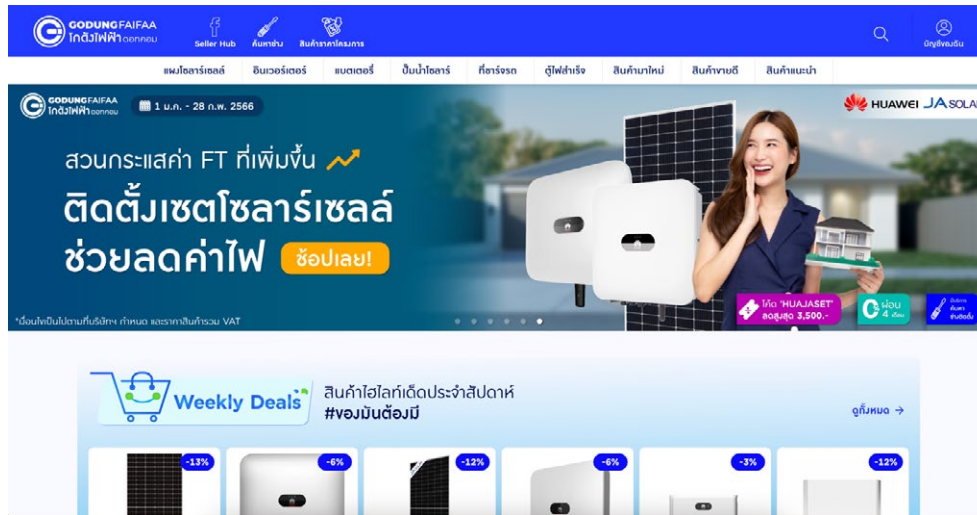
Volt E-marketplace service model

The VOLT Platform's services are not limited to providing services to customers but also to providing a fair services to installers (Installer/ EPC contractor) to be comfortable at work.

- 1) Expand online sales and marketing channels.
- 2) Reduce the cost of solar roof installation by eliminating unnecessary steps and promoting the installer's sales and marketing efforts.
- 3) Coordination and inquiry service.
- 4) Receipt of payment and mitigation of risk for the installer.

2. Platform for selling electrical products and solar cell via GodungFaifaa.com

GUNKUL SPECTRUM has collaborated with SCB10X to implement a marketplace called "GodungFaifaa" (www.GodungFaifaa.com) that serves as a one-stop shop for connecting buyers of electrical equipment (such as electrical equipment shops and contractors or customers) with both domestic and international equipment manufacturers. This is to develop a transportation system, various payment systems, and end-to-end services in order to create a sustainable eco-system, effectively eliminate process constraints, and enable nationwide commerce. It is considered as B2B2C online platform, the first online marketplace for electrical equipment in Asia.

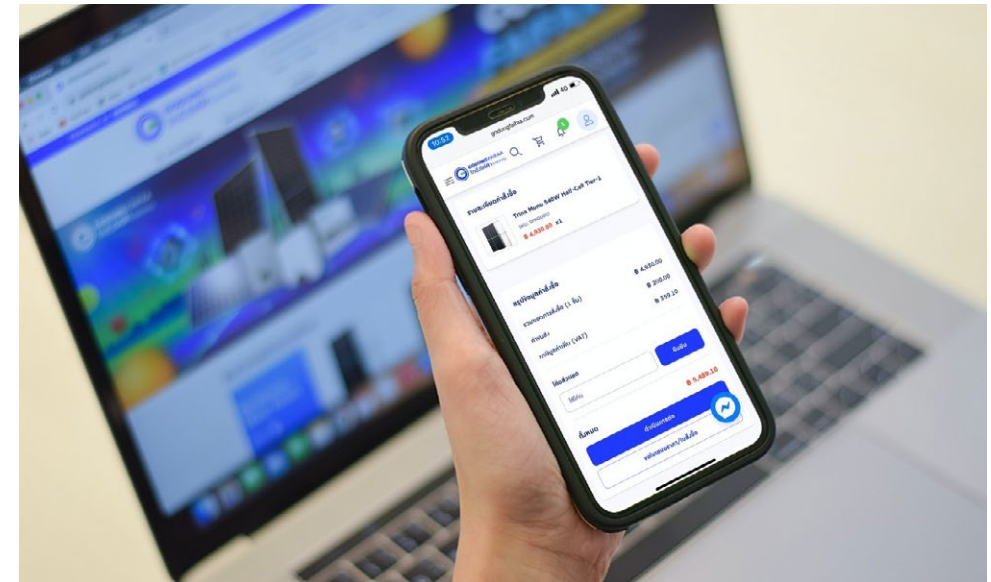


Operating results of Godung Faifaa in 2022

Godung Faifaa platform generated revenue after only 6-months of operation and gained 57.3 million baht revenue in 2021, with an average of at least 4,000 website visitors per month, resulting in 360 percent increase in revenue. The subscribers are solar companies that focus on the market of solar equipment installation in households and businesses of various sizes (Solar Rooftop 3 kilowatts - 20 kilowatts). In addition, Godung Faifaa also gained the revenue of 129.5 million baht in 2022, with an average of at least 20,000-30,000 website visitors per month.

Godung Faifaa platform's objectives are as follows :

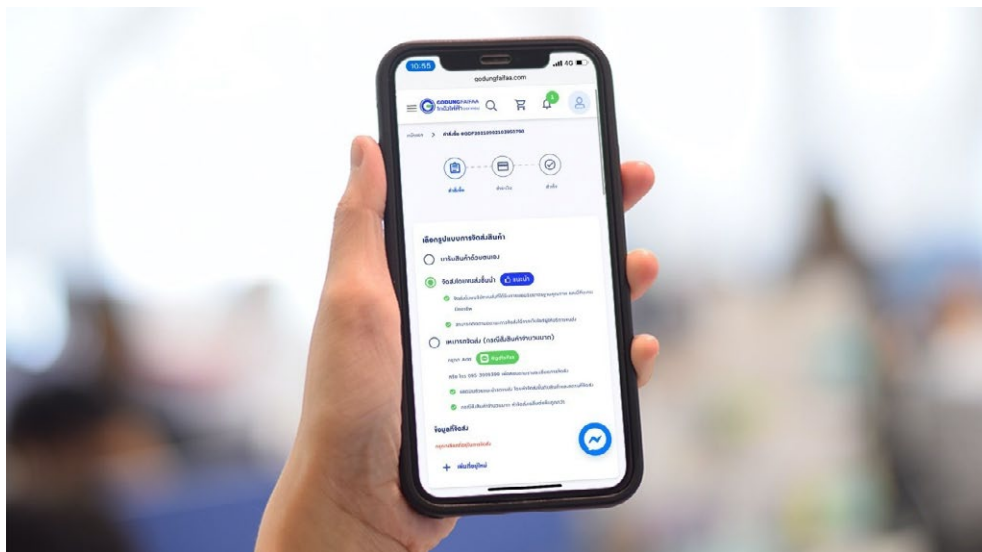
- Godung Faifaa brings together the world's leading brands of electrical and solar equipment by dividing popular products into 4 broad categories :
 - Photovoltaic solar panels
 - Inverter
 - Battery
 - Photovoltaic solar water pump
- The project's price proposal is no longer time consuming to prepare. It is possible to order online. No need to wait for administration.
- Convenient and secure transportation options with shipping insurance.
- Simple and secure payment, plus a 0% installment.



Godung Faifaa platform has 4 main strategies for 2023 :

- To be the nation's leading provider of comprehensive photovoltaic and electrical equipment.
- Increase revenue by 800 percent, or 400 million baht in 2023.
- To be the largest solar panel importer and distributor in Thailand.
- Establish an eco-system conducive to the growth of solar and electricity businesses in all dimensions throughout the country.

Aiming for a 400 million baht revenue in 2023, Godung Faifaa has stocked at least 5,000 additional items. Although the solar equipment continues to be the platform's primary focus in 2023, the Company will expand into other electrical product categories to meet the needs of various projects and enhance existing services such as customer service, transportation, and other financial services, with an emphasis on facilitating and providing other financial services, and providing an online shopping experience for electrical and solar devices that creates customer's reliance in every purchase of products.



Apart from business objectives, Godung Faifaa aspires to create a learning community that teaches customers how to purchase high-quality products and maximize their value through world-class partners such as HUAWEI and SIEMENS. HUAWEI, as the world's most popular inverter brand, offers a diverse selection of high-quality smart inverters and batteries at competitive prices, which is believed to upgrade the solar power generation system and increase access to clean energy for every household. SIEMENS offers a broader range of products including consumer unit or electrical cabinet equipment, circuit breakers, and electric vehicle chargers to meet the need of Godung Faifaa. This will enable the platform to expand and support additional groups of electricians and solar operators ranging in size from small to large.

Godung Faifaa platform employs 4 main strategies :

- 1) Best Price Offer
- 2) Real Time Process
- 3) After Sale Service and Warranty
- 4) Logistics Services (end-to-end)

From the seller's perspective, platform advantages include assisting large sellers in managing the difficulties they frequently encounter when doing business with small buyers, such as clarifying product details, inquiries, negotiating prices, and issuing various documents. From the buyer's perspective, platform advantages include ensuring them that products are directly from the manufacturer or an authorized representative and that they paid a price close to the factory price or the lowest price available on the market.



The platform is currently operational with a number of well-known brand sellers, including HUAWEI and SIEMENS, and over 400 products have joined the platform. The Company intends to expand its seller base in order to meet the needs of customers who want to find products more easily, conveniently, and affordably.

3. Drone Thermal Scan

Drone Thermal Scan is an aeronautical device used to inspect solar panels in order to keep them in good condition on a regular basis. It is critical to the power plant's profitability as it enables the efficient generation of electricity to occur continuously, allowing the plant to sell more electricity and have a longer service life.

Traditional method cannot cover all defects on the whole solar power plant

- Thermal Inspection is **traditionally** done by a hand-held thermal camera, **inspecting one panel at a time**.
- Average solar farm has **more than 30,000 panels**. To inspect all panel, **at least 1 month is needed**.
- With our innovation, it takes **only 1 hour** to gather all the data, and **1 day** to process all the data.

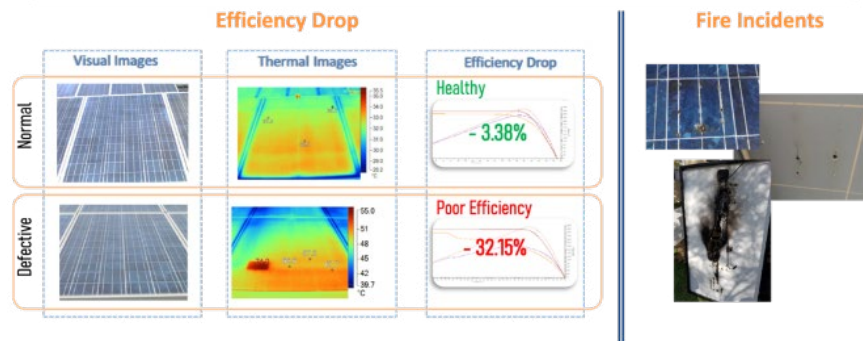


Comparison picture of maintenance of solar power plants

Gunkul Spectrum combines unmanned aerial vehicle (Drone) technology with a thermal camera (Thermal Scan) to conduct thermal scans of solar panels in order to detect hot spot which is solar panel malfunctions or any other type of damage that may have occurred and identify a panel that is not producing optimal power at full capacity. Drone Thermal Scan will take a thermal image of the solar panel and will then be able to accurately analyze the results. It can discover a solar panel that began to malfunction before it deteriorated to the point where it impacted electricity production significantly.

There are defects on solar panel which cannot be seen

These defects cause power production efficiency drop, and in some rare case, could lead to fire incidents. However, these defects can only be seen in thermal images.



Comparison of thermal cameras in operation and accurate detection of defective panels.

Thermal Drone Image Processing Procedure

- 1) Send an unmanned aerial vehicle (UAV) equipped with a thermal imaging camera over the solar farm to collect thermal images of the solar panels.
- 2) Collect detailed images and send them to image processing (Image Processing) in detail, integrated with artificial intelligence, to analyze damaged solar panels, such as hot spots and other types of damage, and precisely calculate the results of power generation reduction.
- 3) Collect and report data on the efficiency of solar energy plants.
- 4) Once the location of the damaged solar panel is determined, an effective maintenance plan can be developed that includes the replacement of the damaged component of the panel.

Previously, solar panel anomalies could be detected using a hand-held thermal camera, but this had the limitation of being slow. This means that inspecting each solar panel over a period of 2-3 months can be time consuming and costly. Thermal Drone Image Processing is believed to reduce time, cost, and increase efficiency in the verification of solar panel performance for businesses.

4. Peer-to-Peer Electricity Trading Platform

Solar rooftops now serve an increasing number in households each year. People are becoming increasingly aware of clean energy. However, solar cells can generate electricity throughout the day or only when there is sunlight. Also, electricity must be used immediately and cannot be stored for later use after it is generated, in the absence of an energy storage system. As a result, if the homeowner consumes less energy than they can generate, energy is wasted. One of the options

for reducing wasted energy and increasing efficient usage of power generated from solar cell system is to sell excess electricity to electricity users who are in need of electricity at the time.

Gunkul Spectrum has been selected to participate in the Energy Regulatory Commission's (ERC) Sandbox project to develop and test the Peer-to-Peer energy trading system (Peer to Peer energy trading) for an 18-month test period. The sandbox project will combine the study and development of the energy trading system with relevant government sectors.

Recently, Gunkul Spectrum has announced business collaboration with Origin Property and PRUKSA (Pruksa Holding Public Company Limited) to further and study business feasibility of the Origin and Pruksa group's housing projects by installing a solar rooftop EV charger and connecting systems throughout the complex. It will enable the residents to bid on and purchase electricity from one another (Peer-to-peer Energy Trading) at a lower price than the standard electricity rate, and contribute to the creation of value for any excess electricity that may be left over to generate revenue for residents.

5. Energy Living Solution for Residential Platform

Apart from the electricity trading business, Gunkul Spectrum has partnered with Origin Property to operate renewable/ clean energy in residential projects over a 3-year period (2022-2024), with the goal of facilitating the establishment of a solar village (Solar Village) for 2 additional businesses.

1) Solar power generation and distribution business or Private PPA (Power Purchase Agreement)

The Company installed Solar Rooftop with equipment and maintenance services contract to generate electricity for distribution within the common area of GRAND BRITANIA Village, where the construction has been completed since the second quarter of 2022. As for the condominium projects of ORIGIN PROPERTY Group, the construction was completed and the system tested in the first quarter of 2023. This will benefit the common expenses by reducing costs through a more economical electricity rate.

2) Installation and Service of Electric Vehicle Charging Station (EV Charger Station) Business

For condominium projects, the system is initially being tested and has already been installed in ORIGIN PROPERTY's flagship project, Park Origin Thonglor, which provides maximum convenience for residents with 6 charging sockets for electric cars, and more EV chargers will be added until reaching 100 charging stations in other ORIGIN PROPERTY projects by 2023 such as Community Mall Hotels and Mixed-Use Projects to break down barriers in terms of limited parking space for condominium residents. To respond to the trend of electric cars and increase the opportunity to access more clean energy, emphasizing the concept of ENERGY x URBAN LIVING solution that will create sustainability for living and lead to a Zero-Carbon ecosystem through the energy dimension.



6. Virtual Power Plant Platform (VPP Platform)

According to the policy of promoting renewable energy and the goal of reducing climate change, Thailand's energy sectors, including Gunkul Engineering Public Company Limited, have a large number of potential customers in producing electricity from clean energy. Some of the amount of electricity produced over the demand can be managed and passed on to other groups of energy consumers who need to use energy in cheap price and electricity generated from clean energy. In addition, the Company has joined in the ERC Sandbox Phase 2 to express the standpoint of driving Thailand sustainably with integrated digital technology to being the leader of the energy industry transition to clean energy (Energy Transition) which suit and conform to the digital business.

The Company's concept is to develop a platform that combines a business model to increase the efficiency of management planning in both financial and energy perspectives in the long term for creating maximum benefits for all parties involved, such as electricity supplier, electricity consumer and power grid system administrators, without affecting the stability of the grid system.

The platform will gather electricity users who have potential in electricity production (Prosumer) and general consumers (Consumer) in the platform. There is the platform administrator (Aggregator) who collects and buys electricity from the prosumer to manage within the platform and then sells it to the consumer who needs to use electricity in cheap price and/or wants to use electricity produced from clean energy. The aggregator must also control the connection point between the prosumer and the grid system so as not to affect the stability of the grid system. In addition, the aggregator must provide a summary report of the power units traded through the platform, including the payment of the wheeling charge to modify the opportunity cost and the costs incurred to the grid system administrator.

7. Cooperation in Battery Energy Storage Business and Virtual Power Plant Business

The Company recognized that Battery Energy Storage System (BESS), especially when managed through a Virtual Power Plant platform, is a technology that will play a key role in transforming the country's future energy infrastructure and building a balanced power grid with clean energy as the primary energy source. In the future, electricity suppliers or consumers will be able to participate in the allocation of each unit of energy in a cost-effective and efficient manner, without affecting the stability of the power grid.

In September 2022, the Company signed a Memorandum of Understanding (MOU) to join forces with two South Korean companies to develop opportunities in the joint energy business in Thailand, such as Busan Jungkwan Energy Co, Ltd (BJE), a specialist in electrical control and system distribution under SK E&S of SK Group, which is considered one of the world's leading battery manufacturers, and EIPGRID Inc, a digital power platform specialist, which the Company is preparing

to expand the Company's innovative energy business and focus on developing the Virtual Power Plant Platform business for energy management, as well as to achieve the Battery Energy Storage System (BESS) business in Thailand and emphasize to the Company's mission in driving the country towards a low-carbon economy.

The Company, including its energy business innovation unit, GUNKUL SPECTRUM, has an important goal to promote and hastily develop clean energy innovative for the benefit of electricity consumers. Especially in the era when solar roofs and electric cars serve as catalysts for the energy infrastructure to be developed to increase management capabilities with greater efficiency.

4.2 Industry, Market and Competition

Business Overview

The Company recognizes that all business partners and stakeholders play a critical role in ensuring the business's long-term viability and growth. Thus, an Ecosystem Business Platform & Innovation business was born through networking, assisting one another from upstream to downstream in the manufacturing process, transportation, distribution, public relations, and delivery of products and services to customers, including after-sales service. With this business ecosystem, risk will be managed, costs will be reduced, and competitive potential will be created. This is the fundamental structure for doing business together that will enable the Company, all business partners, and stakeholders to grow in a sustainable manner.

Competition

Thailand is entering the energy transition era, where the future energy infrastructure image will be the complete prosumer market. Therefore, this gives importance to the invention of new energy business models in the form of an integrated energy ecosystem to enhance competitiveness and increase access to clean energy services. Meanwhile, it is an opportunity for prosumers to participate in the design or choice of alternative energy services to meet the needs of living both for now and in the future, where the electricity bill situation has high fluctuations, including the trend of energy storage technology and electric cars will play an important role and drive the country's overall economy. Therefore, Ecosystem Business Platform & Innovation holds the key to unleashing the potential and adding value to clean energy of each production unit to reduce household costs, protect the environment and reduce carbon dioxide. The important mission is to create an intelligent energy management system in which residents can participate in the exchange of energy at the household level. The Company aims to improve the quality of life and create sustainability for smart living in the dimension of clean energy.

After the Covid-19 pandemic, which caused many industries to adapt, small, medium and large enterprises not only find a way to take care of their old customers, but also communicate with new



customers, which encourages the Company to seek or create innovation to survive and lead the Company to sustainable growth, while driving the economic and social backlash. An obvious example is the online trading behavior in the era of work-from-home and social distance restrictions, which can be clearly seen from the example of the growth of e-commerce market from the beginning of 2020 to the first half of 2021. In Thailand, the number of digital users has increased by more than 9 million, resulting in e-commerce growth of 68 percent, and the value of Thailand's digital economy is more than 51 percent year-on-year, or up to US\$30 billion in 2021 (BOI e-newsletter 4/2022).

However, the energy industry had to adjust itself to the fluctuating energy demand caused by the Covid-19 pandemic. It was found that electricity consumption decreased by 3.9 percent in almost all branches, affecting both domestic and international economic conditions, as well as the tourism sector. The major business groups, including hotels and department stores, have significantly reduced electricity consumption as a result of the lockdown restrictions. However, the household sector has experienced a relatively high increase in electricity consumption due to restrictions on working from home. After the easing of epidemic surveillance restrictions, which increased the demand for energy consumption, the energy industry has been open to innovation from both domestic and international levels. It is observed by various technology owners who want to build a production base and do business with entrepreneurs such as Tesla.

The company foresees the potential to compete in the existing market based on experience in electrical engineering and renewable energy. Including the creation of new market areas as an opportunity to do business in the S-Curve style, which is the reason for producing innovation to increase access to electricity users comprehensively based on 4 axis innovation (SET) :

- 1) Incremental Innovation : Innovation that changes some processes to reduce costs
- 2) Breakthrough Innovation : Innovation that reinvents and disrupts the existing business
- 3) Business Model Innovation : Innovation that results from improving internal processes to create a new business model
- 4) New venture Innovation : Innovation that completely transforms existing businesses, requiring both the adaptation of business capabilities and the entry into new markets

5. Hemp and Cannabis Business

5.1 Nature of Business

The Company is aware of business opportunities that align with the national strategic plan for health promotion investments. As the Company owns unused land for the wind power plant project, therefore, after the Ministry of Public Health agreed to de-drug hemp, the Company began its hemp and cannabis business for commercial purposes. This includes the production and distribution of products from hemp and cannabis such as food and drug products, cosmetics, and herbal beverages for health. The Company intends to collaborate with partners in order to establish a leadership position in the hemp and cannabis integrated business from upstream to downstream, generating returns, adding value, and generating a significant growth rate in the Company's earnings as the foundation for developing the Company's new S-Curve.

The Company has structured and planned a comprehensive strategy for the hemp and cannabis businesses by establishing G.K.Hemp Group Co., Ltd. (GKHG) and 2 subsidiaries of GKHG, namely G.K. Smart Farming Co., Ltd. (GKSF) to procure/ import and cultivate seeds using the Smart Farming system and cultivate in closed greenhouses for products with standards and high-quality. G.K. Bio Extraction Co., Ltd. (GKBE) is responsible for processing, such as the extraction of CBD from dried hemp flowers or oil from hemp and cannabis seeds, which are high-quality products for use in a variety of industries, including pharmaceuticals for medical purposes, health foods, personal hygiene products, food and beverages, etc.

Additionally, on October 7, 2021, GKHG acquired 50% of the ordinary shares and increased capital in preferred shares of THCG Group Co., Ltd. (THCG), with an investment value of not exceeding THB 250 million.



THCG is considered as a strong and potential partner because it is a leader in consulting business for hemp and cannabis cultivation, production, and distribution, including a party to contracts with

the public and private sectors by having projects with licenses to operate, i.e. the Mae Sariang Project in Mae Hong Son Province, the Khao Kho Project in Phetchabun Province, and the Lom Kao Project in Phetchabun Province.

The Company's hemp and cannabis businesses have several advantages, including the following :

- The Company owns over 5,000 rai of land for wind energy projects, which is suitable for development and allocation to benefit.
- Water sources for cultivation are readily available.
- Agriculture system innovations through the use of a Smart Farming system to ensure the quality of trees meets GAP, GACP and EU-GMP, which can use all planted produce to develop products that meet GHP, HACCP and GMP PIC/ S standards, which are all high standards.
- The use of electricity from solar energy in the control system of important factors in planting such as temperature, humidity, water and fertilizer distribution system in a closed house, thereby lowering energy costs.
- Strong partner from collaborating with experts such as consultants, growers, chemists, and herbalists with extensive international experience.



The Company has budgeted approximately THB 2,000 million for hemp and cannabis business plan between 2021 and 2022, which includes budget for greenhouses, extraction plants, and other expenses for quality control and to achieve a high standard of products.

At present, the building for greenhouses and extraction plants have been completed, which able to produce and deliver quality products to the market, with an investment cost approximately THB 800 million.

In addition, on June 9, 2022, there was an announcement from the Ministry of Public Health on specifying the name of a category 5 narcotic drug in effect. "Marijuana plants" are not classified as category 5 narcotics under the Narcotics Code, which is considered for people to have the opportunity to choose cannabis plants as an alternative to health care and for more medical benefits.

Including abroad, there are more than 30 countries that have legalized the use of medicinal cannabis, some of which allow recreational and recreational use. In addition, there are some countries began to focus on the benefits of CBD extracts such as Japan starting with education, pay attention and prepare to issue new laws by increasing the scope of use of hemp plant parts.

For this reason, it is considered to increase the opportunity for marketing and sell more cannabis products to the market both domestically and internationally.

Hemp and Cannabis Business Operations

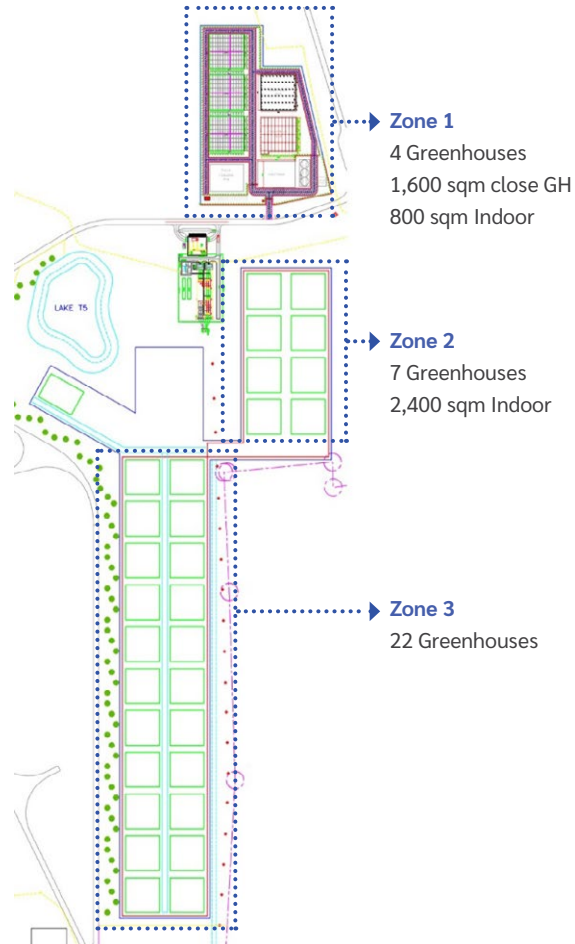
Currently, hemp and cannabis business operations are divided into 4 main parts : planting, extraction, sales/ marketing and licensing and standards.

1. Planting segment

Operates under G.K. Smart Farming Co., Ltd., responsible for importing seeds for planting, planting work, planting development and quality control in planting.

The Company gives priority to planting with quality control from seed selection, seedling cultivation, planting in the foliar and flowering stage and breeders' storage.

In the first phase, the Company uses a total area of 80 rai of land to build a greenhouse for planting, which has completed 2 zones, totaling 14 planting areas, and there are also plans to build 22 houses in Zone 3 in the next year, divided according to the area plan as follows;



Zone 1

Within the area of Zone 1, there will be various facilities such as fertilizer storage, plant for preparing planting material, electric power control building, water treatment building and the main production building, which there will have rooms for drying, sorting, weighing and production storage room which are controlled by GACP standards.



1. Greenhouse 4 GH. Form
2. Closed house system, 1,600 sqm.
3. 800 sqm Indoor, a part of the main production building
4. Main production building

Zone 2

Within the area of Zone 2, there will be various facilities such as electric power control building, water treatment building, which there will have rooms for drying, sorting, weighing and production storage room which are controlled by GACP standards.



1. Greenhouse 7 GH. Form
2. Closed house system, 2,400 sqm.
3. House for drying and storing produce

According to the goal of growing to obtain a high-quality product and to develop hemp and cannabis for medical use, resulting in a quality control which start from personnel in operation, sowing seeds, seedlings, planting at various stages, as well as controlling various main factors, also water quality control for plants which can divide into each section as follows :

1. The planting part, quality control from the beginning of seedling, raising the foliar and the flowering period.



2. High-tech equipment is selected to control various systems including temperature, humidity, fertilizer distribution to reduce the risk of impact from various factors.



3. A hydroponic growing system is being used to reduce the risk of contamination such as heavy metals, which are considered harmful substances to the body.



4. Worker hygiene is controlled by emphasizing cleanliness and monitoring of insects and pests to reduce the risk of disease transmission to plants.



5. Quality control of water that used in cultivation, which has set up a Water Treatment system to adjust the water quality to RO water quality, which is considered as a pure and high cleanliness water.



From the above mentioned quality control Including the suitability of the weather and the area selected by the company. In the past, the company has received good quality products. and have already harvested up to 3 harvesting cycles in 1 year.



The management has honored to be the chairman of the first round of harvest on March 13, 2022.

Over the past 1 year, the Company has imported more than 10 varieties of hemp and cannabis seeds and in the process of importing more than 30 species. The species that have been imported are as follows :

1. Hemp Seeds

1. Queen Dream
2. Cloud Berry
3. Charlotte's Angel
4. Cherry Blonde

2. Cannabis Seeds

1. Triple G
2. Wedding Crasher
3. Sweet ZZ
4. Wedding Gelato
5. Cookies Gelato
6. Green Gelato
7. Royal Gorilla
8. Hulk berry

There are also products of dried inflorescences and other parts from planting such as dried leaves, dried stems, dried roots from the past rounds of planting as follows :

- Dried hemp inflorescences

Species
1. Queen Dream
2. Cloud Berry
3. Cherry Blonde
4. Charlotte's Angel

- Dried cannabis inflorescences : in process of planting which is expected that the first round of production will be received in February 2023.

2. Extraction Segment

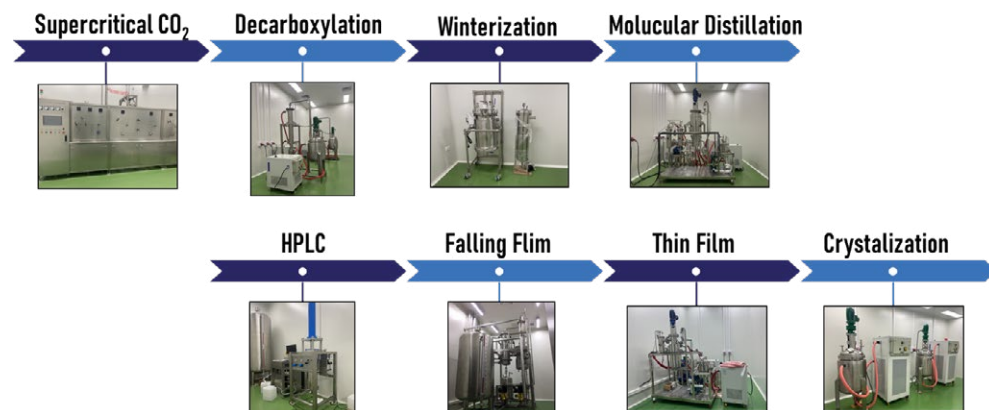
Operates under G.K. Bio Extraction Co., Ltd., responsible for the extraction of important substances from dried hemp inflorescences and conducting analytical tests for various important substances which the Company chooses to use advanced technology to obtain quality that is ready to operate with a maximum production capacity of 200 kilograms per day. This is enough for the Company to produce and to allow third parties access to the Company's extraction services.

The extraction plant is located at 98/1 Moo 1, Bueng Nam Rak Subdistrict, Thanyaburi District, Pathum Thani Province.

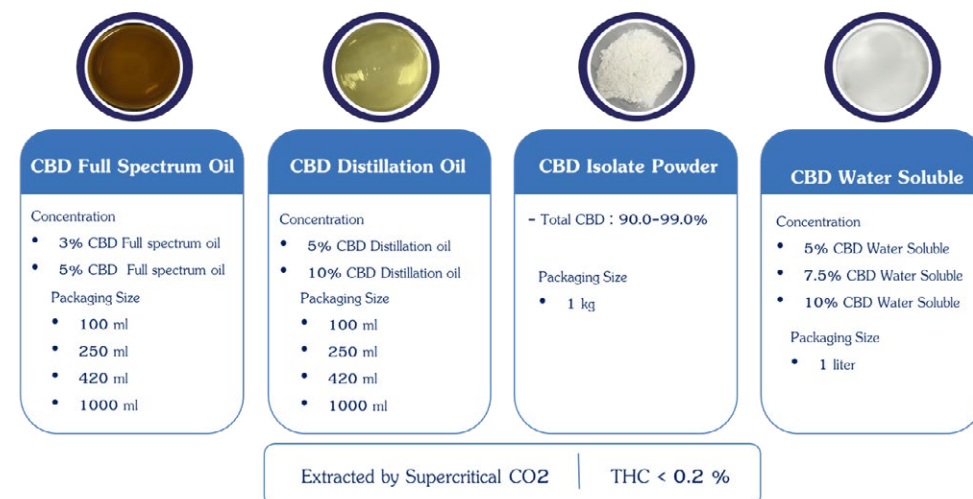




Within the extraction section, consisting of each step to obtain each extract form, such as Full Spectrum Crude, Distillation Crude and CBD Isolate, as well as formulation into a liquid form, which can be dissolved with beverages, with each part can be divided as follows;



The resulting products are as follows :



In addition, the Company also conducts a laboratory analysis of the CBD THC of the extract at the extraction plant, and a plan to apply for ISO17025 certification in order to be able to accept testing from outsiders.



3. Sales/ Marketing Segment

For the year 2022, the Company has started operations in both upstream and midstream and has developed products in the downstream, such as hemp leaf-based beverages, in order to expand the market and create value for products that obtained from upstream such as branches, roots, leaves, etc.

For business plans during the years 2023 - 2024, the Company has plans to increase sales channels and circulations, for example, from previously focusing only on hemp cultivation, the Company has changed to prepare to grow more cannabis, or the appointment of a product distributor, in this regard, if the operation goes according to plan, Hemp and cannabis businesses will be able to generate significant revenues and profits from their existing businesses.

4. Licensing and Standards Segment

Currently, regulations and laws that related to hemp and cannabis businesses have changed considerably, both in areas that are easier to operate and in areas that are more regulated and restrictive in permits, which the Company has applied for relevant permissions in order to comply with the requirements of government agencies as follows :

1. License related to planting segment (G.K. Smart Farming Co., Ltd.)
 - License to clarify seed details
 - License to transport seeds (Phor Kor 5)
 - License to produce (planting)
 - Registration of planting information in the planting app
 - License to distribute seed
 - License for commercial collection
 - License for distribution (regulating herbs)
 - License for exportation
 - License for research on regulated herbs
2. License related to extraction segment (G.K. Bio Extraction Co., Ltd.)
 - License to extract essential substances from hemp plants
 - Facility license for herbal product production

In addition, the Company also pays attention to various standards in terms of planting and extraction work; therefore, the Company has conducted quality control according to standards and requested certification according to the relevant standards as follows :

1. GAP planting standard, which is accepted throughout Thailand.
2. GACP Advanced Planting Standard, which is a globally recognized planting standard.
3. GMP herbal extraction standard, which is accepted in a medical manner.

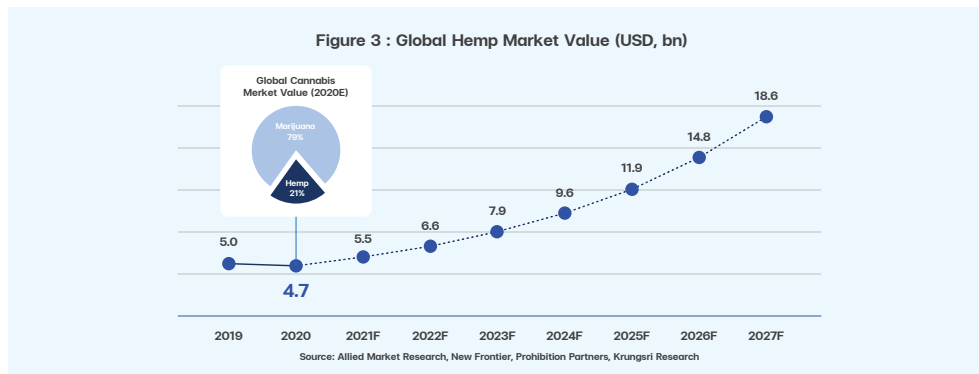
5.2 Industry, Market and Competition

Business Overview

Hemp has gained a lot of attention since the government authorized the planting, production, importation, possession, and sale of seeds. With its diverse properties and benefits, it has the potential to be developed into high-value industrial products that are connected to a variety of industrial chains, including beverages, food, drugs and dietary supplements, as well as clothing and personal care products, resulting in increased economic value. It is expected that the global cannabis market value will continue to grow in 2024, reaching a value of more than 1039 billion US dollars, with approximately 60% of the medical cannabis market and 40% of the recreational cannabis market, causing nowadays, the world's largest food and beverage companies are interested in using cannabis extracts as ingredients in their products. As a result, it is expected that the value of the global cannabis market will grow and spread to more businesses. (Source : Kasikorn Research Center, referring to The Global Cannabis Report by Prohibition Partners)



In addition, the demand in the global market is likely to be higher, which in 2020, the global hemp market is worth more than 4.75 billion US dollars and is expected to grow continuously at an average of 21.6% per year, reaching a value of 18.6 billion US dollars in 2027 (Source : Krungsri Research Center).



Thailand Krungsri Research Center estimates the value of Thai hemp industry as follows :

1. In 2021, the beverage industry with hemp content is expected to be worth THB 280 million, followed by food products made from hemp worth THB 240 million, medicines and dietary supplements made from hemp worth THB 50 million, and clothing made from hemp fiber worth THB 30 million. Personal care products which are in the product development phase worth approximately THB 600 million.
2. Thai hemp products are expected to experience rapid growth in the first 5 years after the government legalizes the industry. At the end of 2025, the Thai hemp market will be worth THB 15.8 billion, representing a compound annual growth rate (CAGR) of 126%.

Table 3 : Projection of Economic Gains from Hemp's Ingredient*

	Value (mTHB)		CAGR Growth
	Estimate 2021	Forecast 2025	
Beverage	280	7,600	128%
Food	240	5,600	120%
Pharmaceuticals and Supplementary	50	1,240	123%
Apparel and Footwear	30	820	129%
Personal Care Products**	0.0	510	184%
Total	600	15,770	126%

Remark : * Industrial value is based on the assumption that the government permits the private sector to produce all of the products and services as listed in the table.

** Personal care products are expected to be valuable by 2022.

Source : Euromonitor, Krungsri Research

The Company believes that this business is consistent with the national strategic plan for health promotion investments. Additionally, it connects to other industries that can be further developed into downstream products such as food and drug products, cosmetics, and herbal beverages for health. As a result, the Company has decided to invest in the aforementioned business by conducting thorough research, analyzing risks, and calculating the return on investment with anticipation that such projects will generate returns, add value, and generate continuous asset and profit growth for the Company and its shareholders.

Competition

From the allure of hemp, cannabis, and the marketing gap that has existed since its inception, numerous entrepreneurs are interested in investing in hemp and cannabis-related businesses. As the Company has an advantage over competitors due to its ready-to-develop area of over 5,000 rai, a source of water for cultivation, and innovations in the agricultural system that utilize solar energy for lighting and temperature control systems in closed houses, resulting in low production costs and giving the Company a competitive edge.



1.2.3 Privileges from Investment Promotion

The Board of Investment approves the subsidiaries and associated companies to obtain several privileges as a person receiving investment promotion under the Investment Promotion Act B.E. 2520, which can be summarized as follows :

- Exemption of import duty on machinery as approved by the Board.
- Exemption from corporate income tax on net profits for a period of 8 years from the date of commencement of earning from that business. If the business incurs a loss during the specified period, it may be deducted from subsequent net profits for a period of up to five years following the end of the specified period.
- Exemption from the requirement to include dividends from the promoted businesses in the calculation of income tax during the period of corporate income tax exemption as mentioned above.
- Permission to deduct double the cost of transportation, electricity, and water bills for a period of 10 years following the date of earning income from business operations.
- Permission to deduct 25% of the cost of installing or constructing the facility in addition to the normal depreciation.

The Company obtains privilege from investment promotion according to the Investment Promotion Act B.E. 2520, dividing into 2 categories with details of incentive and tax exemptions as follows :

Group 1 : Power purchase agreements with government agencies in the form of Adder and power purchase agreements with private agencies

Year	Tax Rate (Percent)	
	Exempt Tax	Corporate Income Tax Payable
Year 1 - Year 8	100	0
Year 9 - Year 13	50	10
From the 13 th year onwards	0	20

- Power purchase agreements with government agencies in the form of Adder

Wind Energy Development Co., Ltd., Greenovation Power Co., Ltd., Korat Wind Energy Co., Ltd., Gunkul Chubu Powergen Co., Ltd., G-Power Source Co., Ltd., NK Power Solar Co., Ltd. and BMP Solar Co., Ltd. are subsidiaries and associated/ joint ventures that have obtained this type of privilege.

- Power purchase agreements with private agencies

Gunkul Solar Power 2 Co., Ltd. and Gunkul Solar Roof 1 Co., Ltd.

Group 2 : Power purchase agreements with government agencies in the form of Feed in Tariff "FiT" and power purchase agreements with private agencies

Year	Tax Rate (Percent)	
	Exempt Tax	Corporate Income Tax Payable
Year 1 - Year 8	100	0
From the 8 th year onwards	0	20

- Power purchase agreements with government agencies in the form of FiT

Rang Ngern Solution Co., Ltd., Eco Thai Energy Co., Ltd., Gunkul Solar Power 2 Co., Ltd., Gunkul Solar Roof 1 Co., Ltd., Siam Gunkul Solar Energy Co., Ltd., Solar Energy Society Co., Ltd., WHA Gunkul Green Solar Roof 1 Co., Ltd., WHA Gunkul Green Solar Roof 3 Co., Ltd., WHA Gunkul Green Solar Roof 6 Co., Ltd., and WHA Gunkul Green Solar Co., Ltd., Roof 17 Co., Ltd. are subsidiaries and associated/ joint ventures that have obtained this type of privilege.

- Power purchase agreements with private agencies

Solar Energy Society Co., Ltd., and Gunkul Infinite Group Co., Ltd. are subsidiaries that have obtained this type of privilege.



1.2.4 Assets Used in Business Operations (See details in Attachment 4)

Main Fixed Assets

List	Net Worth ¹⁾ (Million Baht)	Obligation
The main fixed assets used in the Company's business, subsidiaries and associated/ joint ventures are land, buildings and structures, factories, warehouses, building renovation and utilities, work in progress, including machinery and factory equipment, decoration, office equipment and vehicles. These include assets that the Company, subsidiaries and associated/ joint ventures have the ownership and lease for business operation.	14,731.85	<ul style="list-style-type: none"> Assets used in business operations, which is the head office of the Company, subsidiaries, and associated/ joint ventures are mostly under lease agreements. Some of which are owned by the subsidiary. Assets used in business operations, which is a branch office, are under both lease agreements and ownership. Land and buildings used in the operation of renewable energy power plant projects is the ownership of the subsidiary. Most of them are mortgaged with financial institutions to secure credit facilities. Most of the vehicles are under leasing contracts.

1) Only assets that the Company, subsidiaries, associated/ joint ventures have ownership.

Key Lease

Contract	Counterparties	Period	Details
Land, Building and Structure Lease Agreement is the agreement for the use of assets for business operation of the Company, subsidiaries, associated/ joint ventures	Details are in Attachment 4.	Details are in Attachment 4.	<ul style="list-style-type: none"> Rental purpose is to be the location of head office, branch offices, factories, warehouses, archives, place for production of electricity from solar energy installed on ground and roof Rental rate, contract renewal, contract termination as described in Attachment 4.

Other Intangible Assets

According to the consolidated financial statements as of December 31, 2022, total intangible assets and goodwill was THB 1,252.74 million, which included software license fees of THB 17.59 million, rights to connect power distribution systems of THB 83.88 million, rights to purchase/ operate electricity business contracts of THB 1,067.46 million, goodwill of THB 80.93 million, and software during installation of THB 2.88 million.

Investment Policy in Subsidiaries and Associated Company

Currently, the Company has subsidiaries, which it holds a majority stake, totaling 64 companies and has 17 associated. The Company has a policy of supervising its subsidiaries by assigning directors and executives from the Company to serve as directors and executives in the subsidiaries for the purpose of management and supervision.

For the future, the Company's investment policy will consider investing in businesses that support and benefit the Company's operations, businesses with growth potential or businesses that leverage the Company's expertise. Moreover, the Company will consider on the rate of return on investment. If the Company makes additional investments in subsidiaries, it will supervise by appointing directors to serve as representatives in the subsidiaries in proportion to their shareholding percentage. For associated, the Company retains minor control, merely appointing representatives to serve as directors. However, the number of representatives from the Company who serve as directors is proportional to the Company's shareholding percentage in each company.

1.2.5 Undelivered Work

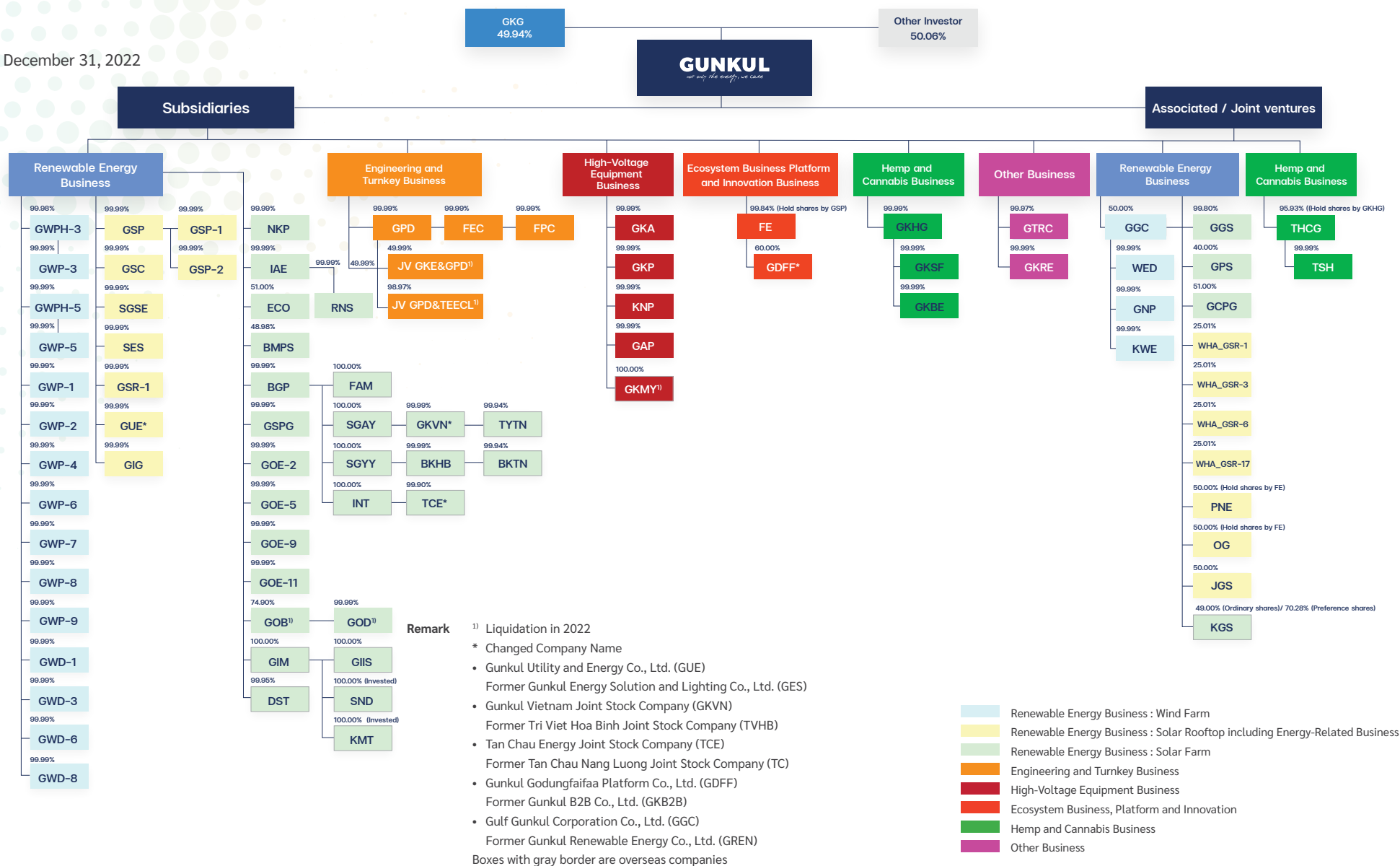
As of December 31, 2022, the subsidiaries had uncompleted work in the engineering and turnkey business group totaling of approximately THB 3,319.69 million.



1.3 Shareholding Structure

1.3.1 Shareholding Structure of the Group

As of December 31, 2022





The Group's Shareholding Proportion

(1) Subsidiaries

Company	Symbol	Business Type	Currency	Registered Capital	Shares Type	Paid-up Capital (Shares)	Par Value	Number of Shares Holding by Gunkul	% of Holding by Gunkul
						(shares)		(shares)	(%)

Renewable Energy Business

1. G Wind Power Holding 3 Co., Ltd.	GWPH-3	Invest in production and distribution of electricity from renewable energy by generating to government agencies	THB	1,250,000.00	Common Shares	12,500	100.00	12,497	99.98
2. G Wind Power Holding 5 Co., Ltd.	GWPH-5	Investing in production and distribution of electricity from renewable energy by generating to government agencies	THB	2,000,000.00	Common Shares	20,000	100.00	19,997	99.99
3. Gunkul Wind Power 1 Co., Ltd.	GWP-1	Production and distribution of electricity from renewable energy by generating to government agencies	THB	5,000,000.00	Common Shares	50,000	100.00	49,997	99.99
4. Gunkul Wind Power 2 Co., Ltd.	GWP-2	Production and distribution of electricity from renewable energy by generating to government agencies	THB	5,000,000.00	Common Shares	50,000	100.00	49,997	99.99
5. Gunkul Wind Power 3 Co., Ltd.	GWP-3	Production and distribution of electricity from renewable energy by generating to government agencies	THB	630,000,000.00	Common Shares	6,300,000	100.00	6,299,997	Share holding by GWPH-3 99.99
6. Gunkul Wind Power 4 Co., Ltd.	GWP-4	Production and distribution of electricity from renewable energy by generating to government agencies	THB	5,000,000.00	Common Shares	50,000	100.00	49,997	99.99
7. Gunkul Wind Power 5 Co., Ltd.	GWP-5	Production and distribution of electricity from renewable energy by generating to government agencies	THB	630,000,000.00	Common Shares	6,300,000	100.00	6,299,997	Share holding by GWPH-5
8. Gunkul Wind Power 6 Co., Ltd.	GWP-6	Production and distribution of electricity from renewable energy by generating to government agencies	THB	6,000,000.00	Common Shares	60,000	100.00	59,997	99.99
9. Gunkul Wind Power 7 Co., Ltd.	GWP-7	Production and distribution of electricity from renewable energy by generating to government agencies	THB	6,000,000.00	Common Shares	60,000	100.00	59,997	99.99
10. Gunkul Wind Power 8 Co., Ltd.	GWP-8	Production and distribution of electricity from renewable energy by generating to government agencies	THB	5,000,000.00	Common Shares	50,000	100.00	49,997	99.99
11. Gunkul Wind Power 9 Co., Ltd.	GWP-9	Production and distribution of electricity from renewable energy by generating to government agencies	THB	5,000,000.00	Common Shares	50,000	100.00	49,997	99.99
12. Gunkul Wind Development 1 Co., Ltd.	GWD-1	Production and distribution of electricity from renewable energy by generating to government agencies	THB	630,000,000.00	Common Shares	6,300,000	100.00	6,299,997	99.99



Company	Symbol	Business Type	Currency	Registered Capital	Shares Type	Paid-up Capital (Shares)	Par Value	Number of Shares Holding by Gunkul	% of Holding by Gunkul
						(shares)		(shares)	(%)
13. Gunkul Wind Development 3 Co., Ltd.	GWD-3	Production and distribution of electricity from renewable energy by generating to government agencies	THB	630,000,000.00	Common Shares	6,300,000	100.00	6,299,997	99.99
14. Gunkul Wind Development 6 Co., Ltd.	GWD-6	Production and distribution of electricity from renewable energy by generating to government agencies	THB	630,000,000.00	Common Shares	6,300,000	100.00	6,299,997	99.99
15. Gunkul Wind Development 8 Co., Ltd.	GWD-8	Production and distribution of electricity from renewable energy by generating to government agencies	THB	630,000,000.00	Common Shares	6,300,000	100.00	6,299,997	99.99
16. NK Power Solar Co., Ltd.	NKP	Production and distribution of electricity from renewable energy by generating to government agencies	THB	2,600,000.00	Common Shares	23,060	100.00	23,058	99.99
					Preferred Shares	2,940	100.00	2,940	
17. Infinite Alternative Energy Co., Ltd.	IAE	Production and distribution of electricity from renewable energy by generating to government agencies	THB	1,564,000,000.00	Common Shares	15,640,000	100.00	15,639,998	99.99
18. Rang Ngern Solution Co., Ltd.	RNS	Production and distribution of electricity from renewable energy by generating to government agencies	THB	1,355,000,000.00	Common Shares	13,550,000	100.00	13,549,997	Shares holding by IAE 99.99
19. Eco Thai Energy Co., Ltd.	ECO	Production and distribution of electricity from renewable energy by generating to government agencies	THB	76,500,000.00	Common Shares	765,000	100.00	390,150	51.00
20. BMP Solar Co., Ltd.	BMPS	Production and distribution of electricity from renewable energy by generating to government agencies	THB	980,100.00	Common Shares	50,000	10.00	-	48.98
					Preferred Shares	48,010	10.00	48,010	
21. Gunkul Solar Power Co., Ltd.	GSP	Production and distribution of electricity from renewable energy by generating to government agencies and private agencies	THB	599,998,800.00	Common Shares	5,999,988	100.00	5,999,985	99.99
22. Gunkul Solar Power 1 Co., Ltd.	GSP-1	Production and distribution of electricity from renewable energy by generating to government agencies and private agencies	THB	100,000,000.00	Common Shares	1,000,000	100.00	999,997	Shares holding by GSP 99.99
23. Gunkul Solar Power 2 Co., Ltd.	GSP-2	Production and distribution of electricity from renewable energy by generating to government agencies and private agencies	THB	100,000,000.00	Common Shares	1,000,000	100.00	999,997	Shares holding by GSP 99.99



Company	Symbol	Business Type	Currency	Registered Capital	Shares Type	Paid-up Capital (Shares)	Par Value	Number of Shares Holding by Gunkul	% of Holding by Gunkul
						(shares)		(shares)	(%)
24. Gunkul Solar Community Co., Ltd.	GSC	Production and distribution of electricity from renewable energy by generating to government agencies and private agencies	THB	20,000,000.00	Common Shares	200,000	100.00	199,997	99.99
25. Siam Gunkul Solar Energy Co., Ltd.	SGSE	Production and distribution of electricity from renewable energy by generating to government agencies and private agencies	THB	40,900,000.00	Common Shares	409,000	100.00	408,997	99.99
26. Solar Energy Society Co., Ltd.	SES	Production and distribution of electricity from renewable energy by generating to government agencies and private agencies	THB	750,000,000.00	Common Shares	7,500,000	100.00	7,499,997	99.99
27. Gunkul Solar Roof 1 Co., Ltd.	GSR-1	Production and distribution of electricity from renewable energy by generating to government agencies and private agencies	THB	21,000,000.00	Common Shares	210,000	100.00	209,997	99.99
28. Gunkul Utility and Energy Co., Ltd. (Former name : Gunkul Energy Solution and Lighting Co., Ltd. “GES”)	GUE	Business for rent, sublease and manage property, Production and distribution of electricity from renewable energy by generating to government and private agencies	THB	100,000,000.00	Common Shares	1,000,000	100.00	999,998	99.99
29. Gunkul Infinite Group Co., Ltd.	GIG	Production and distribution of electricity from renewable energy by generating to government and private agencies, and investing in the business related to renewable energy	THB	314,000,000.00	Common Shares	3,140,000	100.00	3,139,997	99.99
30. Bright Green Power Co., Ltd.	BGP	Production and distribution of electricity from renewable energy by generating to government and private agencies, and investing in the business related to renewable energy	THB	1,356,300,000.00	Common Shares	13,563,000	100.00	13,562,997	99.99
31. Gunkul Solar Powergen Co., Ltd.	GSPG	Production and distribution of electricity from renewable energy by generating to government and private agencies	THB	899,175,000.00	Common Shares	8,991,750	100.00	8,991,747	99.99
32. Gunkul One Energy 2 Co., Ltd.	GOE-2	Production and distribution of electricity from renewable energy by generating to government and private agencies	THB	569,460,000.00	Common Shares	5,694,600	100.00	5,694,597	99.99
33. Gunkul One Energy 5 Co., Ltd.	GOE-5	Production and distribution of electricity from renewable energy by generating to government and private agencies	THB	95,000,000.00	Common Shares	950,000	100.00	949,997	99.99



Company	Symbol	Business Type	Currency	Registered Capital	Shares Type	Paid-up Capital (Shares)	Par Value	Number of Shares Holding by Gunkul	% of Holding by Gunkul
						(shares)		(shares)	(%)
34. Gunkul One Energy 9 Co., Ltd.	GOE-9	Production and distribution of electricity from renewable energy by generating to government and private agencies	THB	918,675,000.00	Common Shares	9,186,750	100.00	9,186,747	99.99
35. Gunkul One Energy 11 Co., Ltd.	GOE-11	Production and distribution of electricity from renewable energy by generating to government and private agencies	THB	438,000,000.00	Common Shares	4,380,000	100.00	4,379,997	99.99
36. Go Bioenergy Co., Ltd. (Registration of liquidation in 2022)	GOB	Investment in companies in renewable energy and biomass business by generating to government and private agencies	THB	34,300,000.00	Common Shares	343,000	100.00	256,906	74.90
37. Outgrow D Co., Ltd. (Registration of liquidation in 2022)	OGD	Production and distribution of electricity from biomass by generating to government and private agencies	THB	40,000,000.00	Common Shares	400,000	100.00	399,998	Shares holding by GOB 99.99
38. Gunkul International (Mauritius)	GIM	Oversea Investment	USD	109,319,578	Common Shares	109,319,578	1.00	109,319,578	100.00
39. Gunkul International Investment (Singapore) Pte. Ltd.	GIIS	Oversea Investment	USD	324,829.00	Common Shares	324,829	1.00	324,829	Share holding by GIM 100.00
40. Sendai Okura GD Daiichi Godo Kaisha	SND	Production and distribution of electricity from solar energy installed on the ground of 31.75 MW by generation to Tohoku Electric Power Co., Inc., Japan	JPY	Investment in a total amount of 2,151,032,829.00	-	-	-	-	100% investment
41. Kimitsu Mega Solar Godo Kaisha	KMT	Production and distribution of electricity from solar energy installed on the ground of 33.50 MW by generating to Tepco Energy Partner Co., Inc., Japan	JPY	Investment in total amount of 10,879,848,800	-	-	-	-	100% investment
42. Future Asset Management Kabushiki Kaisha	FAM	Investment in renewable energy power plant business	JPY	506,510,000.00	Common Shares	50,651	10,000	50,651	Shares holding by BGP 100.00
43. Singapore An Yang Pte. Ltd.	SGAY	Oversea Investment	USD	15,079,000.00	Common Shares	15,079,000	1.00	15,079,000	Shares holding by BGP 100.00
44. Singapore Yun Yang Pte. Ltd.	SGYY	Oversea Investment	USD	15,049,000.00	Common Shares	14,721,829	1.00	15,049,000	Shares holding by BGP 100.00



Company	Symbol	Business Type	Currency	Registered Capital	Shares Type	Paid-up Capital (Shares)	Par Value	Number of Shares Holding by Gunkul	% of Holding by Gunkul
						(shares)		(shares)	(%)
45. Gunkul Vietnam Joint Stock Company (Formerly named : Tri Viet Hoa Binh Joint Stock Company “TVHB”)	GKVN	Oversea Investment	VND	309,179,000,000.00	Common Shares	3,091,790	100,000	3,091,770	Shares holding by SGAY 99.99
46. Tri Viet Tay Ninh Joint Stock Company	TVTN	Production and distribution of electricity from solar energy installed on the ground of 30 MW by generating to Vietnam Electricity Group, Vietnam	VND	244,300,000,000.00	Common Shares	2,443,000	100,000	2,441,500	Shares holding by GKVN 99.94
47. Bach Khoa A Chau Hoa Binh Joint Stock Company	BKHB	Oversea Investment	VND	301,606,000,000.00	Common Shares	3,016,060	100,000	3,016,030	Shares holding by SGYY 99.99
48. Bach Khoa A Chau Tay Ninh Joint Stock Company	BKTN	Production and distribution of electricity from solar energy installed on the ground of 30 MW by generating to Vietnam Electricity Group, Vietnam	VND	236,600,000,000.00	Common Shares	2,366,000	100,000	2,364,500	Shares holding by BKHB 99.94
49. Doan Son Thuy Investment Joint Stock Company	DST	Production and distribution of electricity from solar energy installed on the ground of 50 MW by generating to Vietnam Electricity Group, Vietnam	VND	300,000,000,000.00	Common Shares	30,000,000	10,000	29,985,000	99.95
50. INT Energy Pte. Ltd.	INT	Oversea Investment	USD	9,242,424.00	Common Shares	9,100,000	0.98	9,100,000	Shares holding by BGP 100.00
51. Tan Chau Energy Joint Stock Company (Formerly named : Tan Chau Nang Luong Joint Stock Company “TC”)	TCE	Production and distribution of electricity from solar energy installed on the ground of 50 MW by generating to Vietnam Electricity Group, Vietnam	VND	180,000,000,000.00	Common Shares	18,000,000	10,000	17,982,000	Shares holding by INT 99.90
Engineering and Turnkey Business									
52. Gunkul Power Development Co., Ltd.	GPD	Engineering and Turnkey Business	THB	350,000,000.00	Common Shares	3,500,000	100.00	3,499,997	99.99
53. Future Electrical Control Co., Ltd.	FEC	Engineering and Turnkey Business	THB	100,000,000.00	Common Shares	10,000,000	10.00	9,999,998	Shares holding by GPD 99.99



Company	Symbol	Business Type	Currency	Registered Capital	Shares Type	Paid-up Capital (Shares)	Par Value	Number of Shares Holding by Gunkul	% of Holding by Gunkul
						(shares)		(shares)	(%)
54. GKE & GPD Joint Venture Co., Ltd. (Registration of liquidation in 2022)	JV_GKE&GPD	Engineering and Turnkey Business	THB	80,000,000.00	Common Shares	800,000	100.00	399,999 399,998	Shares holding by GUNKUL 49.99 Shares holding by GPD 49.99
55. GPD & TEECL Joint Venture Co., Ltd.	JV_GPD & TEECL	Engineering and Turnkey Business	THB	1,000,000.00	Common Shares Preferred Shares	9,900 100	100.00 100.00	9,897 -	Shares holding by GPD 98.97
56. Future Power Construction Co., Ltd.	FPC	Engineering and Turnkey Business	THB	5,000,000.00	Common Shares	50,000	100.00	49,997	Shares holding by FEC 99.99
High-Voltage Equipment Business									
57. G.K. Assembly Co., Ltd.	GKA	Production of electrical system equipment by generating of group companies, and government and private agencies	THB	200,000,000.00	Common Shares	2,000,000	100.00	1,999,998	99.99
58. G.K. Power Products Co., Ltd.	GKP	Production of electrical system equipment by generating of group companies, and government and private agencies	THB	100,000,000.00	Common Shares	100,000	1,000.00	99,998	99.99
59. K.N.P. Supply Co., Ltd.	KNP	Production of electrical system equipment by generating of group companies, and government and private agencies	THB	200,000,000.00	Common Shares	2,000,000	100.00	1,999,998	99.99
60. GAP Supply Co., Ltd.	GAP	Production of electrical system equipment by generating of group companies, and government and private agencies	THB	10,000,000.00	Common Shares	100,000	100.00	999,997	99.99
61. Gunkul Engineering (Myanmar) Company Limited (Registration of liquidation in 2022)	GKMY	Production of electrical system equipment by generating of group companies, and government and private agencies	USD	50,000	Common Shares	50,000	1.00	50,000	100.00



Company	Symbol	Business Type	Currency	Registered Capital	Shares Type	Paid-up Capital (Shares)	Par Value	Number of Shares Holding by Gunkul	% of Holding by Gunkul
						(shares)		(shares)	(%)

Ecosystem Business Platform and Innovation

62. Future Energy Corporation Co., Ltd.	FE	Application services, platforms and computer programs	THB	50,000,000.00	Common Shares	500,000	100.00	499,199	Shares holding by GSP 99.84
63. Gunkul Godungfaifaa Platform Co., Ltd. (Formerly namely : Gunkul B2B Co., Ltd. "GKB2B")	GDFP	Application services, platforms and computer programs	THB	50,000,000.00	Common Shares	500,000	100.00	299,999	Shares holding by FE 60.00

Hemp and Cannabis Business

64. G.K. Hemp Group Co., Ltd.	GKHG	Investment in hemp and cannabis business	THB	550,000,000.00	Common Shares	5,500,000	100.00	5,499,997	99.99
65. G.K. Smart Farming Co., Ltd.	GKSF	Hemp and cannabis business	THB	185,000,000.00	Common Shares	1,850,000	100.00	1,849,997	Shares holding by GKHG 99.99
66. G.K. Bio Extraction Co., Ltd.	GKBE	Hemp and cannabis business	THB	50,000,000.00	Common Shares	500,000	100.00	499,997	Shares holding by GKHG 99.99

Other Business

67. Gunkul Training Center Co., Ltd.	GTRC	Education service, seminar management, training management and any other related to education	THB	1,000,000.00	Common Shares	10,000	100.00	9,997	99.97
68. G.K. Real Estate (2564) Co., Ltd.	GKRE	Real estate business	THB	60,000,000.00	Common Shares	600,000	100.00	599,997	99.99



(2) Associated/ Joint Ventures

Company	Symbol	Business type	Currency	Registered Capital	Shares type	Paid-up capital	Par value	Number of shares holding by GUNKUL	% of holding by GUNKUL	Company
						(shares)		(shares)	(%)	
Renewable Energy Business										
1. Gulf Gunkul Corporation Co., Ltd. (Formerly named : Gunkul Renewable Energy Co., Ltd. "GREN")	GGC	Invest in production and distribution of electricity from renewable energy by generating to government agencies	THB	2,234,000,200.00	Common Shares	22,340,002	100.00	11,170,000	50.00	Gulf Renewable Energy Co., Ltd.
2. Wind Energy Development Co., Ltd.	WED	Production and distribution of electricity from renewable energy by generating to government agencies	THB	1,575,000,000.00	Common Shares	157,500,000	10.00	157,499,987	Shares holding by GGC 99.99	Gulf Renewable Energy Co., Ltd.
3. Greenovation Power Co., Ltd.	GNP	Production and distribution of electricity from renewable energy by generating to government agencies	THB	1,485,000,000.00	Common Shares	148,500,000	10.00	148,499,998	Shares holding by GGC 99.99	Gulf Renewable Energy Co., Ltd.
4. Korat Wind Energy Co., Ltd.	KWE	Production and distribution of electricity from renewable energy by generating to government agencies	THB	1,107,000,000.00	Common Shares	11,070,000	100.00	11,069,998	Shares holding by GGC 99.99	Gulf Renewable Energy Co., Ltd.
5. Gulf Gunkul Solar Co., Ltd.	GGs	Production and distribution of electricity from renewable energy by generating to government and public agencies	THB	100,000.00	Common Shares	1,000	100.00	998	Shares holding by GGC 99.80	Gulf Renewable Energy Co., Ltd.
6. G-Power Source Co., Ltd.	GPS	Production and distribution of electricity from renewable energy by generating to government agencies	THB	930,000,000.00	Common Shares	9,300,000	100.00	3,719,999	40.00	Electricity Generating Public Co., Ltd.
7. Gunkul Chubu Powergen Co., Ltd.	GCPG	Production and distribution of electricity from renewable energy by generating to government agencies	THB	992,000,000.00	Common Shares	9,920,000	100.00	5,059,195	51.00	Chubu Electric Power Gen B.V.
8. WHA Gunkul Green Solar Roof 1 Co., Ltd.	WHA_GSR-1	Production and distribution of electricity from renewable energy by generating to government agencies	THB	11,500,000.00	Common Shares	1,150,000	10.00	287,615	25.01	WHA Solar Co., Ltd.
9. WHA Gunkul Green Solar Roof 3 Co., Ltd.	WHA_GSR-3	Production and distribution of electricity from renewable energy by generating to government agencies	THB	14,500,000.00	Common Shares	1,450,000	10.00	362,645	25.01	WHA Solar Co., Ltd.



Company	Symbol	Business type	Currency	Registered Capital	Shares type	Paid-up capital	Par value	Number of shares holding by GUNKUL	% of holding by GUNKUL	Company
						(shares)		(shares)	(%)	
10. WHA Gunkul Green Solar Roof 6 Co., Ltd.	WHA_GSR-6	Production and distribution of electricity from renewable energy by generating to government agencies	THB	14,500,000.00	Common Shares	1,450,000	10.00	362,645	25.01	WHA Solar Co., Ltd.
11. WHA Gunkul Green Solar Roof 17 Co., Ltd.	WHA_GSR-17	Production and distribution of electricity from renewable energy by generating to government agencies	THB	16,000,000.00	Common Shares	1,600,000	10.00	400,160	25.01	WHA Solar Co., Ltd.
12. Pun New Energy Co., Ltd.	PNE	Production and distribution of electricity from renewable energy and business related to electrical energy	THB	30,00,000.00	Common Shares	3,000,000	100.00	1,499,998	Shares holding by FE 50.00	Innosprout Holding Co., Ltd.
13. Origin Gunkul Energy Co., Ltd.	OG	Production and distribution of electricity from renewable energy and business related to electrical energy	THB	11,000,000.00	Common Shares	1,100,000	10.00	549,999	Shares holding by FE 50.00	Origin Gunkul Energy Co., Ltd.
14. JGS Power Synergy Co., Ltd.	JGS	Operating electrical energy business	THB	100,000,000.00	Common Shares	10,000,000	10.00	5,000,000	50.00	Jay Mart Public Co., Ltd. Singer Thailand Public Co., Ltd.
15. Kenyir Gunkul Solar Snd. Bhd.	KGS	Production and distribution of electricity from solar energy installed on the ground of 29.99 MW in Malaysia	MYR	37,500,000	Common Shares	500,000	1.00	245,000	49.00	Company in Malaysia
					Preferred Shares	37,000,000	0.56 - 1.44	18,440,972	70.28	
Hemp and Cannabis Business										
16. THCG Group Co., Ltd.	THCG	Hemp and cannabis business	THB	260,600,000.00	Common Shares Preferred Shares	2,100,000 23,960,000	10.00 10.00	1,049,999 23,950,000	Shares holding by GKHG 95.93	THCG Holding Co., Ltd.
17. Thai Stick Herb Co., Ltd.	TSH	Hemp and cannabis business	THB	25,000,000.00	Common Shares	2,500,000	10.00	2,499,999	Shares holding by THCG, GKHG totaling 99.99	THCG Holding Co., Ltd.



1.3.2 Parties with Conflict of Interest

- None -

1.3.3 Relation with the Business group of Major Shareholders

- None -

1.3.4 Shareholders

List of the top 10 major shareholders as of January 9, 2023

Number	Major Shareholder	Number of Shares (share)	Proportion (%)
1.	Dhumrongpiyawut family		
	1.1 Gunkul Group Co., Ltd.	4,435,519,280	49.935
	1.2 Dr. Gunkul Dhumrongpiyawut	240,712,170	2.710
	1.3 Ms. Naruechon Dhumrongpiyawut	431,193	0.005
	Total shareholding of Dhumrongpiyawut family	4,676,662,643	52.650
2.	Thai NVDR Co., Ltd.	282,860,537	3.184
3.	Mr. Adisak Sukhumvitya	166,684,500	1.877
4.	Mr. Sura Kanitthaweeikul	166,621,400	1.876
5.	UOB KAY HIAN (HONG KONG) LIMITED - Client Account	134,026,303	1.509
6.	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	131,640,190	1.482
7.	YUANTA SECURITIES THAILAND Co., Ltd.	78,447,520	0.883
8.	MORGAN STANLEY & CO. INTERNATIONAL PLC	60,000,000	0.675
9.	Mr. Thanakhan Sitham	56,869,000	0.640
10.	Mr. Seksan Sricharoen	50,000,000	0.563
	Total	5,803,812,093	65.339

List of shareholders of Gunkul Group Co., Ltd. as of January 9, 2023. Registered capital of 110,000,000.00 baht; Major shareholders consist of Dhumrongpiyawut family holding 99.727% of shares of registered capital.

Number	Major Shareholder	Number of Shares (share)	Proportion (%)
1.	Dhumrongpiyawut family		
	1.1 Dr. Gunkul Dhumrongpiyawut	466,000	42.364
	1.2 Ms. Naruechon Dhumrongpiyawut	211,000	19.182
	1.3 Ms. Sopacha Dhumrongpiyawut	210,000	19.091
	1.4 Mr. Apakorn Dhumrongpiyawut	210,000	19.091
	Total shareholding of Dhumrongpiyawut family	1,097,000	99.728
2.	Mr. Chaloepon Sricharoen	3,000	0.272
	Total	1,100,000	100.000

Major Shareholder's Agreement

- None -

1.4 Registered and Paid-up Capital

1.4.1 Ordinary Shares

The Company is listed on the Stock Exchange of Thailand. As of 31 December 2022, it has registered capital totaling 2,220,632,743.50 baht, of which 2,220,632,743.50 baht is issued and paid-up capital, consisting of 8,882,530,974 ordinary shares at a par value of 0.25 baht per share.

1.4.2 Preference Shares

- None -

1.4.3 Shares or Convertible Securities as underlying securities for issuance of mutual funds for foreign investors

- None -

1.5 Issuance of Other Securities

1.5.1 Convertible Securities

- None -



1.5.2 Debt Securities

As of 31 December 2022, the Company has an outstanding balance from issuing senior unsecured debenture amounting 3,148.7 million baht. The maturity is due to be redeemed in April 2023, July 2024, and April 2025.

1.6 Dividend Policy

The Company has a policy to pay dividend at a rate not less than 40 percent of net profit according to the Company's separated financial statements, after the deduction of corporate income tax, legal reserve, and all other reserves. However, the Company may pay dividend at a rate less than the rate specified above if necessary, depending on necessity for working capital in operation, business expansion plan, and other factors related to the management of the Company.

The Company's subsidiaries have a policy to pay dividend at a rate not less than 40 percent of net profit according to its separated financial statements, after the deduction of corporate income tax, legal reserve, and all other reserves, which will be considered in conjunction with cash flow, financial position, liquidity, and investment plans in each period.

The Board of Directors' resolution regarding dividend payment must be proposed to the shareholders' meeting for approval, unless it is an interim dividend payment whereby the Board of Directors is authorized to approve the payment on a periodical basis, in the event that the Company has sufficient profit. Such interim dividend payment has to be reported to the shareholders in the following shareholders' meeting.

In addition, the Company has disclosed dividend payment information in the past 3 years, the details are as follows;

Year	2020	2021	2022
Performance period	1 Jan – 31 Dec.	1 Jan – 30 Jun. (Interim) 1 Jan – 31 Dec. and Retained Earnings	1 Jan – 31 Sep. (Interim) 1 Jan – 31 Dec. and Retained Earnings
Basic earnings per share (in Baht) – Separate financial statements	0.25	0.18 0.25	0.09 0.14
Dividend Payment (Baht per share)	0.182	0.06 0.12	0.06 0.06 ¹⁾
Total	0.182	0.180	0.12 ¹⁾
Dividend Payout Ratio (%) – Separate financial statements	72.82	73.28	86.16

Note : ¹⁾ The dividend payment is subject to the 2023 Annual General Meeting of Shareholders' approval on April 21, 2023.

2. Risk Management



2.1 Risk Management Policy and Plan

1. Risk Management Policy and Plan

The Company and the Group recognize the importance of systematic risk management under the principles of good corporate governance. In order to support operations to be effective and achieve sustainable goals, as well as to increase the Company's ability to adapt to the global social situation and rapidly changing challenges, which shall lead to business growth opportunities. The Company established a corporate risk management policy (details in attachment 5) and implemented the process in accordance with international risk management standards based on the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework, and the internal audit examines the operation. This is to ensure that the operation is efficient and effective. The comprehensive management approach is linked to all operational levels, and risks are being controlled at an acceptable level. In addition, the Company has established a Risk Management Committee to perform duties of supervision, monitoring and supporting to ensure effective organization's risk management.

2. Risk Management Culture

The Company aims to promote a culture of risk management by raising awareness of risks to all employees at all operation levels. This is to prevent and mitigate negative impacts in business operations towards sustainable business operations and increase competitiveness through regular and continuous participation in risk management at all operational levels. There are guidelines for creating a risk culture through risk management and control policies, all executives and employees are encouraged to be responsible for identifying, analyzing, assessing and prioritizing the risks of the departments they are responsible for, including determining appropriate measures for risk management. This is considered as part of the responsible practice.



2.2 Risk Factors for the Company's Business Operations

The Company has assessed and analyzed key risks by considering all risk factors from both internal and external factors regularly. It covers the risks as summarized below :

2.2.1 The Company's Business Operations Risk

1) Strategic Risk

1.1) Risk of dependence on government-sector customers

Our major customers are government-sector especially PEA, MEA and EGAT covering high-voltage equipment business group, engineering procurement and turnkey project in relation to station and high voltage transmission line.

- **High Voltage Equipment Business Group**

The Company and its subsidiaries' factories sold products to the government's electricity agency and private agencies in Bangkok and various areas across the country. The income from sales of products to this group of customers depends on the budget for the development of production capacity and distribution of electric power from the government. The Company's revenue may be impacted if the government changes its management team or investment policy for the development of electric power generation and distribution may affects the delays in approval for project procurement, or the Company is not selected in a government project auction. However, the major risks from changes in the government's investment policy on the development of electric power generation and distribution are still relatively low. This is because the government recognizes the importance of investment in order to improve the stability of the power system and ensure that electric power transmission continues to be reliable and sufficient to meet the growing demand for electricity in the long run according to the expansion of the domestic economy and industry. As a result, the government will continue to fund the budget for acquisition of supplies for use in the Electricity Authority's capacity expansion and power distribution system development.

The auction of government projects are organized according to product categories. Because of the associated company's diverse products and their factories' ISO 9001 quality standard, ISO 14001 environmental management system standard, ISO 17025 laboratory assessment standard, and occupational health and safety management system standard according to TIS18001 and BS OHSAS18001, many of the Company's products have been registered with the Ministry of Industry as well as being certified by both domestic and international testing

institutes, and received a license for industrial products (TIS). These are advantages in competitive bidding in various government agencies and state enterprises procurement projects that have a policy to promote and support the selection of products that have been certified for their standardize system and manufactured from a factory with a standardized environmental management system. As a result, the Company's prospects of being chosen as the winning bidder remain high. Furthermore, the Company has over 40 years of experience in selling products to numerous power utilities. And by continually maintaining products and services in high quality, it is certain that the Company will continue to win greater trust to supply products to this group of clients as the government sector's procurement grows each year. In 2022, through its subsidiaries, resulted for the increased of backlog continuously.

The Company, on the other hand, has a policy to limit the risk of relying on a small number of clients by expanding its customer base, developing and acquiring new goods and electrical system equipment, and ensuring that the clients' needs are met consistently. This is to diversify consumer groups, which not only lower the risk of relying on a small number of customers, but also open up new business opportunities. To prepare for such policy, the Company has taken part in a product registration initiative with the Electricity Authority, as well as improving internal testing procedures to meet international standards.

- **Engineering and Turnkey Business Group related to power station and transmission line**

The investment in the development of electric power generation and distribution of EGAT and PEA to maintain the security and stability of the power system, to meet the growing demand for electricity from the ASEAN Economic Community, and to support the government's policy of encouraging the use of renewable energy power plants, is an infrastructure investment that has grown over the next three years. Power generating development has been deemed appropriate for each region's electricity consumption and production capabilities, resulting in budget allocations for the construction of a power plant as well as the development and upgrade of Thailand's transmission line system and also the government issue the new PDP related to the 5 GW which effect to the Company's opportunity for construction of the transmission line and the power plant. But due to the fact that the government were lack of stability and the unrecoverable of the global economy will have an impact on the policy of needing to reserve the amount of electricity with the 230-500 Kva large high-voltage transmission lines are expended. If these projects are delayed in their implementation, the Company may be at risk for relying on government clients for revenues from the substations and transmission lines development.



1.2) Risk of the Power Supply

The Group has signed a power purchase agreement with PEA for distribution of power at the amount specified in each contract. The contract is a Non-Firm type for reasons that in the generation of solar-base power, the amount of power generated each time cannot be specifically controlled. There are two groups of contracts : Adder and Feed-in-Tariff. According to the adder agreement, PEA will purchase all electricity produced by quantities specified for each project. The contract is five years from the date of signing the contract and automatically continues for a period of five years. PEA does not have the right to terminate the agreement. For FiT agreement, the contract term is 25 years at fixed price throughout the contract period. In case of the Company comply with the conditions stated in the contract, it is considered that the Company has no risk from the inability to generate and supply electrical power. In addition of being a partner with government department, the Company will certainly receive a quite high payment.

For the solar power plant project that is installed on the roof to produce and sell to private customers, the Company is the investor and giving a maintenance service for the life of the contract (Private PPA). The Company will prevent the risk of the project yielding lower than expected. This may be due to reasons of light intensity or may be caused by such private customers who are not able to pay for electricity or purchase electricity according to the Company's goals. The Company will review the financial statements of those private clients in order to assess the growth potential of the financial and according to the project contract period of the solar energy production system that jointly signed. In addition, the Company will check the consistency of electricity usage among private customers by analyzing to design the installed capacity of the solar power generation system to be suitable and be used efficiently, without waste electricity from the system. This can be seen that the Company has a screening of customers and technical design before proceeding with the project. Therefore, the Company has a risk of loss in this type of project at a low level.

The Company has 2 solar power plant projects in Japan, which both projects have already sold electricity, with the electricity sales rate of both projects not affected by the price reduction. The 160 MW Vietnam projects which have already sold electricity and receive electricity bills of USD 0.0935 and 0.0709 per units as stipulated in the power purchase agreement. For the solar power plant project in Malaysia, it is now able to operate the commercial power distribution since December 31, 2020 total of 30 MW and earn a MYR 0.38 per unit electricity charge.

1.3) Risk from new business investment

The Company has set a process for consideration and assess the risks from investing in the new project and new business before proceeding. The new investment must be assessed by the Company's internal investment risk analysis team, which includes a financial team, legal team and management team with competent in each business area to jointly select projects for risk assessment before presenting to the Executive Committee. The Executive Committee will consider

the suitability of the projects according to the Company's policy, as well as presenting to the Risk Management Committee for consideration and comprehensive risk analysis in each aspect before proposing to the Board of Directors for investment approval. This is to ensure that the Company can manage risks that may arise in order to achieve the investment goals and create value for the Company with the least impact on stakeholders and is at an acceptable risk level.

2) Operational Risk

2.1) Power generation capacity risk

The power generation capacity of a solar power plant depends on three main parts : the intensity of sunlight, solar panel efficiency, and the amount of loss incurred in the power generation system. To prevent such risks that may arise, the group companies therefore select solar panel technology from well-known leading companies that are also being considered as one of the world's most recognized and efficient solar panel manufacturers.

Currently, the Company has the capacity to build solar power plants on its own, and has established an engineering team and subcontractors, as well as selecting crucial solar power plant construction equipment from manufacturers who can provide after-sales service. As a result, the Company can lessen the risk of the power plant's construction being dependent on big contractors and it is considered as a significant step in improving managerial competitiveness and cost control, as well as power plant construction efficiency. The Company was able to manage the solar power plants with greater performance than forecast. Furthermore, the Company acquired the trust of external customers and alliance shareholders evidenced by the Company being assigned to operate the power plant (Operation and Maintenance Agreement) after the electricity is supplied commercially. As a result, the Company can control and oversight its ability in distribution electricity and efficiency of the solar power plant. This is deemed to lessen the risk of not being able to guarantee the minimal amount of electricity supply for each project.

The Company has chosen high-efficiency technologies from leading and experienced manufacturers for the wind power plant project. Furthermore, for the past 4 years, the Company has been collecting local wind speed data in order to assess the viability of generating electricity from wind power before making an investment decision. In addition, to prevent risk, the Company has engaged into a maintenance contract with a turbine manufacturer to manage the power plant, including Spare Parts for a term of 10 years.

2.2) Risk from delay in launching the project

The availability of electricity for a solar power project depends on several factors, for instance, the relevant permitting process, power plant construction financing, the establishment of all



relevant contracts in accordance with the Funding Standard, and the result of testing the power plant's operation prior to commercial power distribution. If the project cannot be completed in line with the Company's and connected parties' criteria, the project's commercial operation will be delayed or the Company will require more expenditure than anticipated. For projects that have already started construction, the Company has managed its risks by closely monitoring the progress of the project, having contractors report progress every week, holding meetings in the construction area to see the real state of the project, and listening to contractors once a month. This enables the Company to understand the problem early on and devise a plan for resolving it. However, in the case of force majeure, the Company will place a high priority on operational stability for the next 20 years of power distribution. The Company will check the status of the solar power plant project under development on a regular basis and will select contractors after engaging with financial institutions that are funding sources first to ensure that the Company may secure loans from financial institutions. The Company has contracted with the project developer to provide support till commercial electricity distribution in order to control risks and create incentives for project developers to achieve their goals. The amount of compensation paid to the power plant project developer will be determined by the project's success. The project developer for the power plant will oversee the project development in four areas as follows :

- 1) Procurement of contract parties for the construction of solar power plants who have expertise and have passed the evaluation and selection process according to the criteria set by the Company and financial institutions.
- 2) In case of investment overseas, the Company will recruit personal with expertise in the control and maintenance of the power plants in that country after power distribution is commercially in operation.
- 3) Project Management for power plant construction and application for various licenses must be complete in timely manner and in accordance with the time limit set forth in accordance with the target for commercial power distribution.
- 4) Project management and overall project control must be able to keep operating costs within the investment budget and completed on schedule.

As a result, the Company has implemented risk management in project management by closely monitoring progress and requiring the project developer to follow-up in a subsequent step in order to ensure the project's success.

2.3) Risk from dependency on EPC Contractor

As the construction of a solar power plant requires expertise in technologies, construction experience, ability to supply material and personnel in operation for the process to work in harmony with every part, the Company therefore hires a turnkey contractor in order to effectively control

the results and giving contractors flexibility to complete the tasks according to the goals. However, hiring a turnkey contractor, on the other hand, puts the project at risk if the contractor is unable to complete the work. As a result, the Company handles the risks by selecting contractors with experience in the construction of solar power plants that meet industry requirements, signing contract to allow the Company to indemnify the amount covered by the claim conditions in accordance with industry standards.

3) Financial Risk

3.1) Risk of exchange rate and interest rate fluctuations

With the nature of the business of the Company and the group, which consist of selling and ordering products from abroad, including investment in renewable energy business abroad, the group may be affected by the exchange rate fluctuations. Fair value measurement in the financial statements may result in gains or losses. As a result, the following actions have been taken by the Company.

- Make forward contracts for buying and selling foreign currency (Forward Contract) according to the period of credit for import-export.
- Balance income against expenses or obligations which is foreign currency with a proportional value (Natural Hedge).
- Manage foreign currency account (Foreign Currency Deposit) in accordance with the cash flow in each phase of the Company's operations.

In addition, the Company has developed a policy to hedge against exchange rate fluctuations as a guideline for risk management of the group to be effective and in the same direction.

For the investment in solar power plant projects in Japan, Malaysia and Vietnam is a power purchase agreement at a fixed rate throughout the project life. The Company determined that revenue recognition in Yen, Ringgit or Dong and the project loan repayment in the same currency is deemed hedging against foreign exchange risk in the proportion of 85%, 80% and 75% of the project's investment, respectively. The risk for investments of 15%, 20% and 25%, respectively, will arise from the conversion of financial statements from Yen, Ringgit, or Dong currency into Thai Baht, which will affect the profit or loss of the account but not the profit or loss from operations.

In terms of interest rate risk management, the Company has a policy of hedging at least 80% of the risks from exchange rate and interest rate volatility using Derivatives IRS/ CCS Contract for Hedging to mitigate the impact of such volatility.



3.2) Risk of damage to project assets insurance

Insurance is a risk management alternative in which the insured (insured firm) contracts coverage with the insurer (insurer) to transfer risks from the insured (insured company) to the insurer. When harm to life and various covered properties occurs as a result of insurance premiums being collected, the insurance company is liable for compensating the insured or beneficiary (Beneficiary) as specified in the contract.

As a result, the Company has prepared a **“Construction Insurance Policy” in conjunction with third-party insurance and/or the employer’s original property insurance for every projects**, including renewable energy projects, station construction projects, High Voltage Transmission Line Construction Projects, and other construction projects. This is to ensure that if any loss or damage occurs, the insurer will compensate according to the terms of the insurance policy and the agreed contract.

The Company is also aware of various risks following construction, as well as the Company’s people, by executing property insurance, business interruption insurance, director and officer liability insurance, COVID insurance, and other insurances to mitigate the risks that may occur.



4) Regulatory Risk

4.1) Risks from the effects of changes in regulations, laws, and guidelines

Due to the activities of the energy company are governed by a number of legal and regulatory restrictions. As the Company owns and runs power facilities in oversea, namely Japan, Malaysia and Vietnam, where the regulations are different, changes in rules and related laws may occur and could have a major impact on the Company’s operations. However, the commercial power distribution has been completed for the power plant projects in foreign nations in which the Company has invested. As a result, when considering the overall picture of investment management in Japan, Malaysia and Vietnam, the Company is now unaffected by any changes. In addition, the Company closely monitors on changes in the legislation, laws, and regulations of the countries in which it invests in order to mitigate any potential negative consequences.

4.2) Risk from being limited in amount of power purchase (Curtailment)

Limiting the amount of electricity purchased will cause the Company to sell less electricity and affecting the income. Each country’s policy on regulating the amount of electricity purchased is different. For Japan, there are three primary rules for regulating the amount of power purchased : limit the amount of electricity purchased without limitation, limit the amount of electricity purchased to 360 hours/ year and limit the amount of electricity purchased to 30 days/ year. The Company’s project has the shortest power limit, which is only 30 days/ year. In Vietnam, the power purchase will be limited only when the amount of electricity produced in the system exceeding the demand, which could be damaging to the system. In this circumstance, the Electricity Authority will impose a limit on the quantity of power supplied for a set length of time and the lift the limit once the situation is safe. This is a risk associated with the power purchase agreement that the Electricity Authority applies to all investors in Vietnam. As a result, before investing, the Company has employed experts to investigate the ability to receive electricity into the system.

5) Social Risks and Environment

5.1) Human Rights Risk

Human rights are important to the Company, and it recognizes that they must be respected in accordance with international principles. The Company implements the complainant protection measures outlines in “Anti-Corruption Policy and Whistle-Blowing or Complaints” to ensure that the Company’s business operations are free of violations of human rights and the right to work, as well as to provide fairness and protection to individuals regarding human rights violations related to the Company. In the event of violation, the offender will face disciplinary action in accordance with the Company’s rules and regulations, as well as legal penalties if the behavior is illegal. This is to establish criteria for treating employees, business partners, supplier, partners and all other stakeholders fairly and equitably, while respecting human rights values.



5.2) Climate Change Risk

Thailand recognizes the need of collaborating to combat global climate change by attending the 26th session of the United Nations Framework Convention on Climate Change (COP26) and announced its intention to achieve Thailand's carbon neutrality goal by 2050 and to achieve net zero greenhouse gas emissions in 2065 by setting a target to reduce greenhouse gas emissions in 2005 by 20-25 percent within 2030, as well as implementing the Renewable and Alternative Energy Development Plan (AEDP) and the Energy Efficiency Plan (EEP). However, due to the impact of the COVID-19 outbreak, the amount of backup power demand has increased significantly, forcing the expansion and investment in the aforementioned business to slow and the Company will have to wait for the government to declare the acquisition of renewable energy electricity. Furthermore, as the National Energy Policy Council stated that the purchase price of renewable energy electricity must not affect the average wholesale electricity price in the future, making it predictable that the price of electricity purchased in the future will be lower, resulting in a slow payback. The Company, on the other hand, has consistently monitored on the government's policies and had made adjustment in accordance with the economy's trajectory, as well as seeking out new business models that continually generate positive returns.

5.3) Natural Disaster Risk

As Japan is located on the Earth's crust's boundary (Ring of Fire), natural disasters occur frequently, which can be categorized as seasonal natural disasters such as typhoons or snow storms, and other unpredictable natural disasters like earthquakes, which can also result in tsunamis. Therefore, insurance is required for the project in Japan to mitigate the risks of such natural catastrophes. The value is based on the findings of a research conducted by a Japanese insurance consulting firm that is an insurance specialist to ensure that the coverage value is reasonable for the probable damage. However, as the project site is in a low-risk area, it has a very minimal chance of having an impact.

On the other hand, Malaysia may face a risk of lightning, which could interrupt the power generation system according to the statistics of frequent lightning events in the area. This is an uncontrollable danger associated with natural disasters. The Company has studied regarding the location of the power plant and various factors that may affect the lightning event, and has consulted experts to design the lightning protection system, as well as other protective equipment, to ensure that the project's operations are not disrupted by the lightning incident. Furthermore, the Company manages natural catastrophe risk by obtaining All Risk insurance with lightning coverage which provides adequate compensation for any damages that may occur.

6) Emerging Risks

6.1) Risk from COVID-19 Pandemic

Since the beginning of 2021, the COVID-19 has been causing an outbreak over the world. The number of infections and deaths is steadily increasing and the outbreak appears to be continuing. As a result, the government took steps to regulate and restrict travel. This has an impact on every sector of the economy. Many industries are being forced to shut down and the rate of unemployment is rising, which has a chain effect on all business sectors around the world. The economy has slowed down in several countries, which the Company was also affected from investing in foreign business due to the travel restrictions. In addition, the Company has used technology to communicate in order to continually operate the business as planned.

Furthermore, to guarantee the safety of its employees, the Company has implemented measures to control and prevent the spread of the COVID-19, by establishing a policy for working from home (Work from Home) and constructing an information technology infrastructure to facilitate work from home. The Company also provides Corona virus insurance 2019 (COVID-19) to employees, procures Antigen Test Kits, procures medicines and medical supplies for COVID-19 patients who need to be isolated at home (Home Isolation Kit), procures oxygen concentrators for employees in the yellow group, and coordinates the patient's bed as well as plans for surveillance, prevention, and emergency action plans in the event of a COVID-19 outbreak. This is to ensure that the Company's operations are uninterrupted. Even though in 2021 the government has announced the COVID-19 as an Endemic, the Company still remain the precaution measures and management as appropriate continuously.

6.2) Cyber Threat Risk and Personal Data Protection

Information technology systems play an important role in business operations. However, such technological advancements bring with them security to the Company and the group, which are either caused by the complexity of the information technology system or by employees' knowledge that must be developed to keep up with the changes that occur. Furthermore, the information technology system's flaws may allow an unauthorized user to have access to the system's information, as well as various technological threats. Inadequate or incomplete defense and security monitoring systems can result in variety of cyber threats, such as DDoS attacks, or Malware/virus that cause serious damage, particularly to data or important systems, resulting in business interruptions, lost income, and reputation, among other things.

For the prevention management of this risk, the Company has developed an information security system and put in place a safeguard system to avoid leaking sensitive information. This includes the collection, compilation, control of the use and disclose of personal information and business



partners' information to plan for the prevention of a personal data violation in compliance with the Personal Data Protection Act by establishing risk management principles that include :

- 1) Follow the information technology policy and create IT Awareness for employees at all levels.
- 2) Provide and develop information security tools to protect all important data and systems
- 3) Monitor and supervise to maintain the security and safety of the Company's and associate's information technology systems to be in accordance with applicable laws and regulations, as well as offer regular backups and testing of stored data and have a plan in place to deal with emergency circumstances.
- 4) Increase information security measures such as granting access permissions to vital system information based on user hierarchy.
- 5) Determine measures to prevent the leakage of important information as well as to create an understanding of employees to protect and be cautious of various transmissions that are at risk of data leaks.
- 6) The Company has an audit and assessment of the adequacy of the information technology policy and internal control systems in information technology systems by the Internal Audit Department and the auditor annually. In addition, the Company plans to test the risk assessment of information systems by detecting vulnerabilities in the host computer and network equipment (Vulnerability Assessment) and Penetration Test by independent agencies to ensure the security of computer networks.

6.3) Risks from rapid changes in energy technology and digital technology

The evolution of technology in today's world extremely rapid, particularly in the clean energy industry, which is a key global altering trend, coupled with the COVID-19 viral epidemic, which has expedited the development of technology in the energy industry by leaps and bounds. However, because the group companies anticipate development in tandem with future technology, there is a plan in place for business expansion, both in terms of staff and financial resources, and the Company is equipped to operate new businesses that are tied to the old ones. This is a natural extension of the Company's previously successful operations. As a result, the Company began its innovation technology and platform business by establishing the GUNKUL Spectrum energy innovation business unit and focusing on partnering with experts in each discipline, such as AIS SCB10X. The Company believes that its business will develop in the future with those who have experiences in various fields of business helping each other to reach their full potential, so that the Company can expand without any limit in its 5 business groups as planned.

2.2.2 Investment Risk of Securities Holders

1) The risk that investors will not receive the expected return on investment

A variety of factors contribute to the volatility of the Company's share price, especially the external factors that are beyond the Company's control, in particular, economic and political conditions in the country, capital market volatility, changes in rules and regulations in doing business both domestically and internationally, and unavoidable crisis situations, such as the spread of the COVID-19. This may have an impact on the Company's share price however, the Company is based on continuous management of the business and on time deliver as specified to all operation in order to lessen the impact of the fluctuation so that investors may get the returns as they expect.

2) The risk that investors will not receive expected dividend

The Company intends to maintain the dividend payment level consistently according to the dividend policy, which is not less than 40% of the net profit after corporate income tax deduction, legal reserve, and all other reserves, as shown in the Company's non-consolidated financial statements. However, investors may not receive expected dividend, because the Company may sometimes need to use working capital for operations or investment which the Company expects to earn stronger returns in the long run. As a result of these investments, the Company shall be able to pay more dividend to shareholders in the future.

2.2.3 Risk of Investing in Foreign Securities

- None -

3. Driving Business for Sustainability

3.1 Policy and Objectives of Sustainable Management Sustainable Development Policy



Sustainable Development Policy

The Company believes that sustainable development and growth with social responsibility by concerning benefits of all stakeholders in business value chain are the way to create long-term value for organization. Accordingly, the Company places importance on sustainable business operation under corporate governance framework, social and environmental responsibility, and adheres to operating business sustainably, as aiming to be a leader in integrated renewable energy and electrical system business, with the use of modern technology and innovation to develop and strengthen the infrastructure, as well as, to be a leader in hemp and cannabis business in international markets to enhance quality of life and good health under the Company's commitment; **"not only the energy, we care."** By striving to be an organization that operates responsibly, builds reliability with stakeholders, creates stability in integrated renewable energy for the country in the future, the Company has formulated Sustainable Development policy and communicated it to employees at all departments in organization, as well as disclosed it on the Company's website to use as operational guidelines, which guidelines and strategies in sustainability management are reviewed continually, as follows :

- 1. We care Business :** The Company develops an integrated business that fulfill the shareholders' needs in conjunction with operating business responsibly under good corporate governance principles. In addition, the Company continually developing technology and creating innovations to improve operations and deliver the best products and services to consumers by considering "Quality, Standards, Safety, and Environment-Friendly." This is to build stakeholders' confidence and ensure the country's stability of integrated renewable energy.
- 2. We care People :** The Company develops its personnel to be competent at work, talented, possess interpersonal skills and excellent leadership as we believe that personnel are valuable resources and an important force in driving organization to achieve sustainably. Accordingly, we concentrate on human resources development through a working system that emphasizes participation, fostering a "culture of teamwork and unity", as well as, promoting skills development and learning throughout the working period. This is to encourage personnel to be skilled and competent to work in all aspects, as well as, to foster a working culture within organization by adhering to good



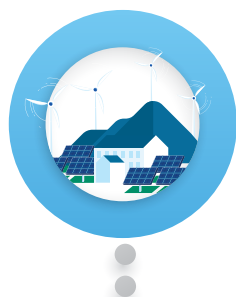
governance principles, equitability according to human rights, and occupational health and safety, in order to lead the organization to excellence.

- 3. We care Social :** The Company creates opportunities for a sustainable society and environment that is community-friendly by encouraging community co-existence and providing mutual assistance as "Good neighbors." This is to focus on natural resources management for utmost benefits, development of technology and innovation to create society and environment, management of impact that may occur from the Company's operation, as well as, placing importance on sharing knowledge and experiences among individuals, organizations, communities, and stakeholders, and supporting access to electrical and renewable energy. As the Company believes that electricity and energy are considered as fundamental factor that everyone should have equal access.

In addition, the Company has communicated and thoroughly disseminated its Sustainable Development policy and operating framework to both internal and external stakeholders to create a responsible business culture among executives and personnel at all level, including all group of stakeholders, and for them to understand their roles and responsibilities and able to implement according to policy. Especially in today's world that is volatile and rapidly changing, including impact from climate change that is becoming more severe day by day, which require adaptability skills to build resilience against changes in order to manage risk, to add value to business together with mitigating impacts towards social and environment. **The Company aims to support energy transition towards Net Zero GHG Emissions within year 2065**, which is considered a crucial test in strategic planning and building a development foundation for all of the Company's activities, in order to create a long-term sustainable value for stakeholders.

Sustainable Development Goals and Strategies

The Company's sustainable development goals and strategies are driven under its commitment; "not only the energy, we care." By that, the Company is committed to operate business with attention to development of clean energy innovation together with attention to existence of the world and quality of life of all stakeholders in a balanced manner through strategic framework that consist of 3 pillars; We care Business, We care People, and We care Social, which covering aspects of economic, social, and environment, as well as, good corporate governance. In addition, the Company places importance on sustainable business development to support its operations to be in accordance with Sustainable Development Goals (SDGs) as follows;

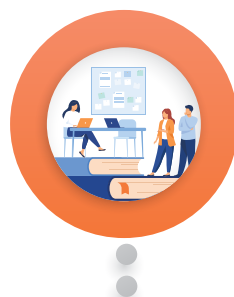


We care Business

Develop a worthwhile integrated business that satisfies stakeholders



- Follow the good corporate governance principles and business ethics.
- Manage risks to reduce impact, expand business, and strive to seek for opportunities to increase business value for stable and sustainable return of all group of stakeholders.
- Commit to develop products and services that meet customers' needs and develop a sustainable quality of life with the use of cutting-edge technology and innovation.
- Develop, improves, procure a complete range of electrical system products.
- Build on capital strength by expanding energy business, both domestically and internationally.
- Procure and develop cutting-edge energy technology and innovation in respond to the use of renewable energy thoroughly and efficiently.
- Expand business line and increase investment in future energy business.
- Expand construction business for both electrical systems and related equipment, including the above ground and underground transmission lines, as well as taking on more submarine cable work to generate income for sustainable growth.



We care People

Develop people to be competent at work, talented, possess good interpersonal skills and excellent leadership



- Create and strengthen "GROWTH" culture to support the strategies for achieving corporate goals.
- Enhance supervisors' skill to portray key roles in driving and fostering appropriate behavior for subordinates to be "competent at work, themselves, people, and team management".
- Develop joint behavior of personnel to adapt to a new organizational culture that focuses on teamwork and lead the organization to excellence.
- Improve human resources management system to facilitate the creation of good behavior for personnel.
- Support personnel to achieve career advancement.
- Adjust the way of working in unusual conditions or situations to ensure that personnel of organization can work safely and efficiently.
- Create an environment, occupational health and safety in the workplace.
- Treat workers with equality, fairness and respect to human rights.



We care Social

Create opportunities for a harmonious society and environment for sustainable communities



- Support the energy transition towards net zero emission with clean energy technology and innovation.
- Balance business growth coupled with creation of alternative energy that is environmentally friendly.
- Support access to electricity and renewable energy, which is one of the fundamental rights everyone should have equitable access.
- Develop the renewable energy power plants to become learning centers of communities and societies.
- Engage employees with community networks to support community activities, in order to establish a strong society and balanced coexistence.
- Promote the creation of career in communities surrounding the Company's renewable energy power plants to enhance quality of life of people in communities.
- Implement sustainable development management by using resources in production efficiently in line with circular economy, and strive to reduce amount of waste in landfills to zero.
- Develop and support the medical benefits of hemp and cannabis to enhance quality of life and good health for people in society.

Sustainable Development Goals : SDGs

The Company is aware of driving business responsibly in accordance with Sustainable Development Goals (SDGs) of the United Nation, therefore, is committed to operate business towards achieving sustainable development, which has 3 important component : economic growth, social inclusion, and environmental protection. The Company has defined sustainable development goals that are in line with business strategies, responds to organizational goals and stakeholders' expectations in a balanced manner. Currently, the Company supports totaling 11 sustainable development goals, the details are summarized as follows :

Promote healthy lives and well-being for all



The Company places importance on health and safety of personnel in suitable working environment and well-being of personnel. Therefore, management guidelines have been established to promote safety in workplace and well-being of employees, including all stakeholders whether it is contractors, partners or nearby communities in order to be safe and able to work efficiently with zero accident-at-work (3.6). Moreover, the Company also focuses on developing products and services to maintain the health of modern people by using natural products such as hemp and cannabis with quality standards that are safe and effective (3.8).

Create equitable and inclusive education, and promote lifelong learning education



The Company recognizes the importance of education, therefore supports employees and employees' families to gain equal access to education through annual scholarship sponsorship (4.1, 4.2, 4.3). Moreover, educational networks covering various educational institutions have been established in order to collaboratively enhance students' vocational skills by providing internship opportunities to support real-world experience that can be used to develop, refine, utilize in future job sustainably. This increases number of young people and adults with essential skills, including technical and professional skills, for employment and having a good job (4.4)

Promote and create gender equality



The Company works towards and create gender equality through employment without discrimination (5.1) by stipulating that all business activities must be free from actions that cause unfair discrimination, and promote respect towards human dignity. As well as, providing employees' rights for potential development and have equitable access to knowledge (5.5).

Sustainable management of water and sanitation for all

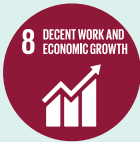


The Company recognizes that water is an important natural source, therefore, the Company is committed to internal management of water by providing a complete water management process in the production process to support water quality improvement and pollution reduction, as well as providing sustainable safe recycling and reuse (6.3). This is to enable the organization to use water resources efficiently for maximum benefit along with sustainable water conservation and restoration (6.4).

Providing modern, sustainable, stable and affordable energy for everyone



The Company engages in clean energy business, therefore, is committed to invest in business development according to its vision in making sustainable energy accessible to everyone efficiently (7.1). Moreover, the Company also provide new technologies to use in the production process consistently (7.3) to increase the proportion of renewable energy usage (7.2).



Promote sustained, inclusive and sustainable economic growth, and decent employment

The Company places importance on economic growth that is in line with stakeholders' expectations. Therefore, the Company is committed to be an employer that respect human rights and responsible for all stakeholders, whether it is to support the employment of employees or people with disabilities in the areas surrounding the business to create a career for the community, to the selection of law-abiding contractors, prohibit child labor, and promote a safe and equitable working environment. (8.5, 8.7, 8.8).



Develop resilient infrastructure, promote adaptation as sustainable industrialization and support innovation

The Company engages in clean energy and technologies-related business, including environmental innovations. Therefore, the Company is committed to invest in and assist the development of technology that is environmentally friendly to promote sustainability in a variety of industries and support the development of clean energy infrastructure. Moreover, the Company also support educational institutions in the creation of long-term innovation. (9.4, 9.5).



Ensure sustainable consumption plan and production

The Company operates business that engage in clean energy, both solar and wind energy. Therefore, it maintains operation under sustainable consumption by making the most efficient use of available resources (12.2).



Implement urgent measures to combat climate change

The Company realizes the significance of global warming that causing rapid climate change. Therefore, is committed to provide a Greenhouse Gas Inventory Report, which collects the organization's greenhouse gas emission, both directly and indirectly. The result would be adapted and used to manage reduction of the organization's greenhouse gas emission according to Thailand's goals at COPS26 meeting. (13.2, 13.3).



Protect, restore and promote sustainable use of terrestrial ecosystems, and sustainable forest management

The Company promotes sustainable forest management by not cutting down forest, promote the restoration of degraded forests, and increase reforestation and forest restoration (15.2).



Promote a peaceful and fair society with no prejudice for sustainable development

The Company recognizes the importance of promoting a peaceful society and sustainable development, therefore, the Company's operation is based on transparency, accountability and participation in the Private Sector Collective Action against Corruption (CAC). Moreover, the Company also encourage suppliers to join the network in order to operate business with the Company in a transparent manner. (16.5, 16.6, 16.7).

Guidelines and Cooperation at National and International Levels



National Action Plan on Business and Human Rights

This action plan was developed under the framework of the United Nations Guiding Principles on Business and Human Rights (UNGPs), which emphasizes 3 pillars of protection, respect, and remedies. It consists of 4 key priority issues that need to be urgently addressed, which are 1) labor 2) land, environment and natural resources 3) human rights defender 4) cross-border investment and multi-national enterprises.



Global Reporting Initiative : GRI

An international independent standards organization founded by the United Nations Office for Environment Programs (UNEP) and the Ceres network, which jointly developed a sustainability reporting framework that discloses information in materiality analysis of the business and ability to respond to the stakeholders' interests with the same reporting standards and precise indicators.

ISO 9001

Quality Management System Standard (ISO 9001 : 2015)

A management system for quality assurance that control work process to be detected, correcting errors, as well as guidance for preventing errors. It also cover understanding the organization and its context, including stakeholders' needs and expectation in order to conduct risks assessment, prioritize risks and develop an action plan to mitigate them, which is one of the foundations that will enable the organization to pursue sustainable development.

TIS18001 BS OHSAS 18001

Occupational Health and Safety Management System Standards (TIS18001 and BS OHSAS18001)

It is aimed to reduce and control the risks of harm of employees and relevant persons, while also increasing efficiency of business operations to ensure safety, and promoting a culture of corporate responsibility towards employees and society.

ISO 14001

Environmental Management System Standards (ISO14001 : 2015)

International standard on environmental management system, which is internationally accepted. The Company encourages it to be used for environmental operations of both solar and wind power plants, as guidelines and operational management to reduce effects from operations, as well as, encouraging activities to preserve environment in the organization.

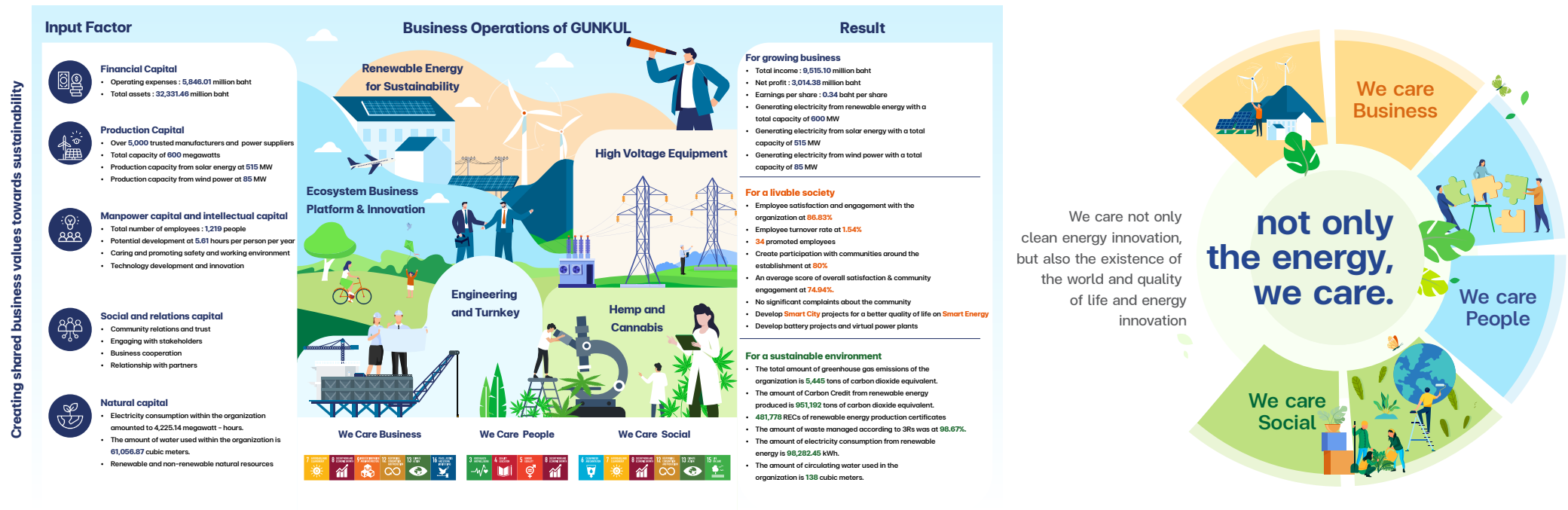
Note : Details in the attachment 7 : Sustainability Report



3.2 Management of Impacts on Stakeholders in the Business Value Chain


The Business Value Chain

The Company is committed to be integrated renewable energy, electrical system and equipment, and hemp and cannabis business operator, using modern technology and innovation to develop a strong and sustainable infrastructure, as well as enhancing the quality of life and good health. The Company is well aware that stakeholders in business value chain, from upstream to downstream, are essential in creating long-term value for the business, therefore the Company analyzes the value chain of all 5 businesses to indicate the key stakeholders which lead to the expectation analysis and specifies the guideline to satisfy the stakeholders expectation of the Company by ensuring efficient business operations and reducing potential risks and building good relationships with stakeholders sustainably. The 9 groups of stakeholders include employees, business partners, customers, competitors, creditors, shareholders and investors, as well as the community, society, and environment, the public sector, the media and other organizations.







Analysis of Stakeholders within the Business Value Chain

Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 Employees	<ol style="list-style-type: none"> 1. Reasonable welfare and remuneration compared with others companies in the same industry. 2. Necessary, appropriate and sufficient equipment to facilitate the work. 3. Fair annual performance evaluation. 4. Stability and career advancement. 5. Appropriate and fair employee knowledge and skill development. 6. Take care of employees' health, appropriate and safe working environment. 7. Open for comments, opinions and suggestion. 8. Equitable treatment of employees. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Percentage of satisfaction from the corporate engagement survey is higher than the previous year. 2. Employee turnover is lower or same as the previous year. 3. Employee make progress and enjoy stability in their job. 4. Zero accident rate at work. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Satisfaction from corporate engagement. 2. Employee turnover rate compared to previous year. 3. Number of executives and employees who have been promoted. 4. The rate of accidents and injuries to the extent of missing work (LTIFR). <p>Communication channel :</p> <ol style="list-style-type: none"> 1. Employee Need Survey to prepare the appropriate courses for employees that also in line with business growth. 2. Corporate satisfaction and engagement survey. 3. Team building activities to encourage employee engagement. 4. Publicize news and activities through social networks, E-mail and Website. 5. Form 56-1 One Report 	<ol style="list-style-type: none"> 1. Establish welfare committee. 2. Annual remuneration survey for appropriate remuneration, benefit and welfare. 3. Arrange appropriate and sufficient equipment to facilitate the work and safe working environment. 4. Specify the standard guideline for working assessment with concrete, equitably and transparency. 5. Specify career path. 6. Provide/ manipulate training course for develop and improve competency in accordance with the employee field and level. 7. Promote and build corporate engagement with employees through various activities and projects. 8. Annual employee satisfaction and engagement survey. 9. Improve and develop opinion and reporting channel. 10. Establish Health, Safety and Working Environment Committee. 11. Promote working culture with respect of human rights.



Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 Business Partners	<ol style="list-style-type: none"> 1. Fair, transparent and accountable procurement and bidding. 2. Potential development for a long-term sustainable growth. 3. Manage accordance with the contract and agreement. 4. Product quality, delivery and full payment on time in accordance with the agreement. 5. Exchange knowledge for development of innovation and new way of working procedure. 6. Respecting each other's rights and non-infringement of Intellectual Property. 7. Social and environmentally responsible procurement. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Percentage of business partner competency assessment is at very good level. 2. 100% of key supplier acknowledge in written the supplier code of conduct guideline. 3. Select supplier that support the public of Carbon Footprint of Product (CFP) not less than 2% from the total supplier. 4. 2% of environmental friendly procurement of the total office supplies. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Supplier performance and competency assessment is at very good level. 2. Number of key suppliers who agree in written with the Supplier Code of Conduct. 3. Ratio of suppliers support the public of Carbon Footprint of Product (CFP). 4. Ratio of environmentally friendly procurement for office supplies. <p>Communication channel :</p> <ol style="list-style-type: none"> 1. Supplier Assessment Form. 2. Business meetings or seminars. 3. Channels for receiving feedback, including complaints, suggestions and opinions. 4. Form 56-1 One Report. 	<ol style="list-style-type: none"> 1. Conduct Supplier Code of Conduct and officially promulgated within the organization, and communicate to business partners. 2. Arrange meeting, create a clear understanding and activities with suppliers. 3. Knowledge sharing by specialists to develop sustainable growth with supplier. 4. Delivery products under specified time, full payment on time with correct and complete that adhere with the contract terms. 5. Visit business suppliers and listen to opinions and suggestion. 6. Treat business suppliers with equality and fairness. 7. Promote Green Procurement of environmentally friendly products or services. 8. Effective supply chain management to prevent and mitigate risk that impact social and environment. 9. Conduct an assessment of key trading partners and assess supplier risk annually to prepare a relationship development plan with partners.




Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 Customers	<ol style="list-style-type: none"> 1. Products and services with quality and safety standards. 2. Delivery of products and services under specified conditions and times. 3. Providing pre-sales and post-sales such as methods or procedures for using the product, proper consultation, assistance and customers visit. 4. Products and service with reasonable price. 5. Maintain and protecting customers confidential information. 6. Efficiency operation meet international standards and not effect to the society, social and environment. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Percentage of customers satisfaction with products and services are higher than previous year. 2. No customers complaints. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Customers satisfaction survey on goods and services. 2. The number of complaints. <p>Communication channel :</p> <ol style="list-style-type: none"> 1. Channels for receiving feedback including complaints, suggestions, and opinions on the use of goods and services. 2. Customers satisfaction survey 3. Visits, meetings, training/ seminars. 4. For 56-1 One Report. 	<ol style="list-style-type: none"> 1. Provide high-quality, safety, and observable products and services. 2. Inspect and control the production of goods and services to meet international standards. 3. Set up a quality assurance system throughout the supply chain from the raw material to the customers' hand. 4. Train employees to have knowledge, expertise, and efficient services to meet customer's need. 5. Set the price of goods and services at a price that is appropriate with the quality and provide information to customers with transparency. 6. Continuously research and develop products with suitable and modern technology and innovation with safety. 7. Strictly abide by the agreements given to access customers. 8. Increase appropriate and modern channels to access products and services 9. Development of the innovation of renewable energy or clean technology for establishing products and services to prevent and mitigate risk that impact social and environment. 10. Promote and support raw materials that are environmentally friendly. 11. Customers satisfaction survey resulted for sustainable development. 12. Conducting Personal Data Protection Act (PDPA) Policy.



Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 Competitors	<ol style="list-style-type: none"> 1. Conduct business with transparency, honesty, and ethical, compete fairly and in accordance with law. 2. Not infringing on copyright or intellectual property rights. 3. Meeting and discussion occasionally. 	<p>Target :</p> <ol style="list-style-type: none"> 1. No complaints about copyright infringement issues. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Number of complaints about copyright infringement issues. <p>Communication channel :</p> <ol style="list-style-type: none"> 1. Business seminars 2. Website 3. Form 56-1 One Report 	<ol style="list-style-type: none"> 1. Treat competitors fairly, ethical consideration, not infringing on copyright or intellectual property right and comply with the law. 2. Develop communication channels for discussion.
 Creditors	<ol style="list-style-type: none"> 1. Fully and timely pay the debt as specified. 2. Compliance with conditions and contractual agreements. 3. Manage risk in a secure manner to ensure business continuity. 4. Manage correctness of the financial information and publicize to the public. 5. Manage abilities for challenging opportunities. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Comply with conditions and contractual agreements. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Comply with conditions and contractual agreements. <p>Communication channel :</p> <ol style="list-style-type: none"> 1. Meeting to mutually clarify terms and conditions. 2. Website 3. Form 56-1 One Report 	<ol style="list-style-type: none"> 1. Discuss or meeting to achieve mutual conclusion on the terms and conditions. 2. Exchange knowledge on risk management and communicate the correct and complete information continuously. 3. Publicize transparency and complete information continuously.





Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 Shareholders and Investors	<ol style="list-style-type: none">1. Effective good corporate governance and risk management.2. Business growth steadily and profitable.3. Return on investment (dividend and share price differential) from good and sustainable operations.4. The operation of the business is successful according to the objectives.5. Respect the fairness and retain equal treatment.6. Disclosure of the Company's information based on facts, correctness, completeness, transparency and timely decision making.	<p>Target :</p> <ol style="list-style-type: none">1. The satisfaction survey result for investor activities ranges from good to very good. <p>Indicators :</p> <ol style="list-style-type: none">1. The results of the satisfaction survey for investors activities. <p>Communication channel :</p> <ol style="list-style-type: none">1. Annual meeting or announcement of business plans and business intentions.2. Website3. Form 56-1 One Report4. Shareholders meeting	<ol style="list-style-type: none">1. Operate the business under the principles of good corporate governance and follow the annual business plan.2. Create sustainable and balance operating results with risk management concisely.3. Create trust and appropriate highest return on investment.4. Disclosure of business operation and results with transparency and completeness continuously.

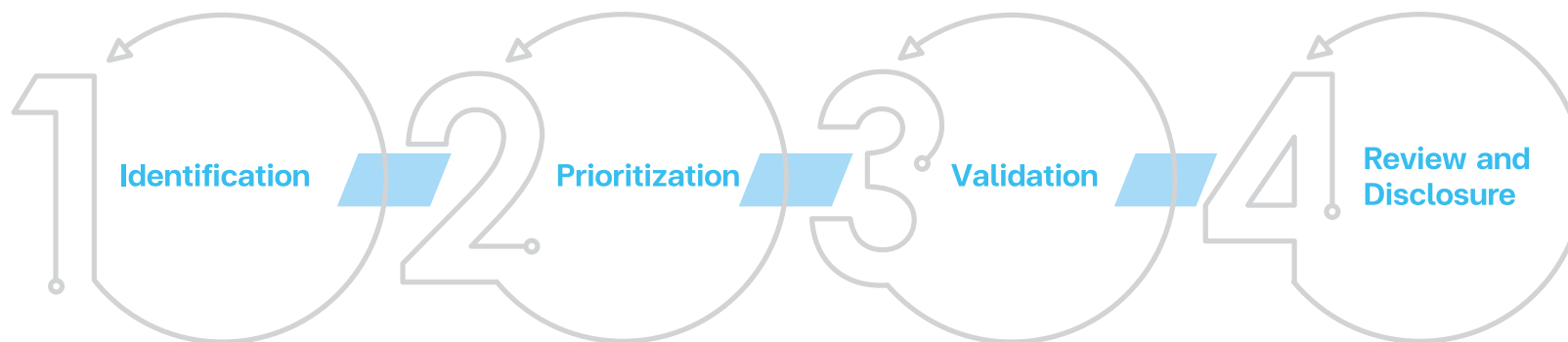


Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 <p>Community, Society and Environment</p>	<ol style="list-style-type: none"> 1. Business operation that is friendly to environment and society. 2. Promote knowledge and understanding of the renewable energy and innovation to manage the resource and environment in the community to the communities. 3. Give priority to safety, impacts on communities and environment. 4. Promote and support activities that benefit to the communities. 5. Participate to develop community, economic, society and environment in the communities. 6. Employ persons with impairment and persons from nearby community. 7. Non-violation of human rights. 8. Discussion and survey for opinions and need from community and society annually. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Percentage of community satisfaction for business operation. 2. No complaints from the community and society. 3. Greenhouse gas emissions are reduced compared to previous year. <p>Indicators :</p> <ol style="list-style-type: none"> 1. The results of the community satisfaction. 2. Number of complaints from community and society. 3. The amount of the carbon dioxide emissions <p>Communications channel :</p> <ol style="list-style-type: none"> 1. Channels for receiving feedback including complaints, suggestions, and opinions. 2. Assessment on level of engagement with business and place of operation. 3. Website 4. Form 56-1 One Report 	<ol style="list-style-type: none"> 1. Establish Company's sustainability development working group and sub-working groups. 2. Publicize the information and understanding of business processes, technology, and innovation, as well as other knowledge that is valuable to society through the website, activity organizing, and other channels. 3. Innovation and clean technology development to reduce the impact on the community and environment. 4. Assess the community impact before and after conducting business operations with responsibility towards environment and biodiversity. 5. Onsite survey for opinions, suggestion and monitor on the effect to the community regularly. 6. Support and promote the activity with the community. 7. Manage resource from the upstream to reduce the amount of waste that affect the society and environment. 8. Applying the 8R guidelines for maximum benefit of using resource to reduce waste leading to Net Zero waste. 9. Arrange channel for receiving feedback, including complaints, suggestions and comments. 10. Promote an environmentally responsible operating culture, energy saving and reduce greenhouse gas emissions throughout the organization.



Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 Public Sector	<ol style="list-style-type: none"> 1. Operate in accordance with relevant laws and regulations. 2. Promote the good corporate governance comply with the business ethics. 3. Anti-Benefit Claims and Corruption. 4. Payment of taxes and fees in full and in timely manner. 5. Cooperation and support various projects and activities 6. Manage complaints efficiency. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Comply with regulations of the public sector. 2. Promote and participate public sector activities. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Activities incorporated with public sectors. <p>Communication channel :</p> <ol style="list-style-type: none"> 1. Visits, meetings, trainings/ seminars. 2. Verification and inspect following the standards. 3. Arrange activities incorporated with public sectors. 4. Form 56-1 One Report 	<ol style="list-style-type: none"> 1. Operate business under good corporate governance and in accordance with relevant laws and regulations. 2. Disclose information with transparency regularly. 3. Join the anti-corruption network. 4. Carry out tax matters according to relevant laws and regulations. 5. Cooperate and support activities and operations at the national level.
 Media and Other Organizations	<ol style="list-style-type: none"> 1. Communicate corporate news that are accurate, fast, up-to-date, neutral and benefit to the society. 2. Operate business with responsibility to economy, society and environment. 3. Have concrete operation according to policies and measures to manage impacts arising from business operations. 4. Participate and have good relationship with media and other organizations. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Presentation of news within the Company is correct, fast, and up-to-date. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Amount of news presented within the Company with accuracy, speed and timeliness. <p>Communication channel :</p> <ol style="list-style-type: none"> 1. Annual General Meeting of Shareholders or announcement of business plan and intentions and activities on listed companies meeting with investors (Opportunity Day). 2. Channels for receiving feedback including complaints, suggestions and comments. 3. Website 4. Form 56-1 One Report 	<ol style="list-style-type: none"> 1. Submit actual and natural operational information regularly after completion of operation. 2. Submit information that is helpful to society or general public as well as establish working group and sub-working groups for organizational development toward sustainability. 3. Publicize the information and understanding of business processes, technology, and innovation, as well as other knowledge that is valuable to society through website, activities organizing, and other channels.

Materiality Assessment



1. Identifying Key Sustainability Issues

Specify the key issues that may affect the value creation of the organization along with the business value chain by considering the sustainable context from both internal and external factors. Internal factors include risk issues, strategy direction, business objective and expectation and concerns of all group of stakeholders. External factors include international standard of sustainability report framework, United Nation sustainable development issue, other issue within the same or related industry as well as Thailand and international trends that affect the business in various level which can be divided into 3 main points :

- We care Business : Economic issues
- We care Social : Social and environmental issues
- We care People : Employee issues

2. Prioritization

Prioritize key point that can be identified by considering from opportunities and impacts on the value creation which may affect the business operation and all group of stakeholders. The sustainability development working group prioritize the importance of each key issue at a High level (Tier1), which is the issues that stakeholders concern very much and may cause high risk to the organization, Middle level (Tier2) is the issues that stakeholders concern and cause risk to the organization and

Low level (Tier3) is the key issues that stakeholders hardly concern and may not cause any risk to the organization by bringing to the table of materiality analysis (Materiality Matrix) :

- Vertical Axis : Issues that may affect and significant to the stakeholders
- Horizontal Axis : Issues that may affect and significant to the business

3. Validation

Validate the correction and completeness of the key issues, the sustainability development working group has been proposed the verified issues to the Good Corporate Governance and Sustainable Development Committee and the Board of Directors for approval and verify the issues and establish the sustainability action plan and the organizational risk management plan which have been approved by the Executive Management, with Chief Executive Office serving as the Chairman of the meeting in order to meet the stakeholders expectation and continuous development.

4. Review and Disclosure

Follow up on operational results that are consistent with 15 key sustainability issues. The results have been reported by the Board of Directors and disclosed to the public in various channels such as the Form 56-1 One Report, website, shareholders' meeting and other channels which comply by all regulations.

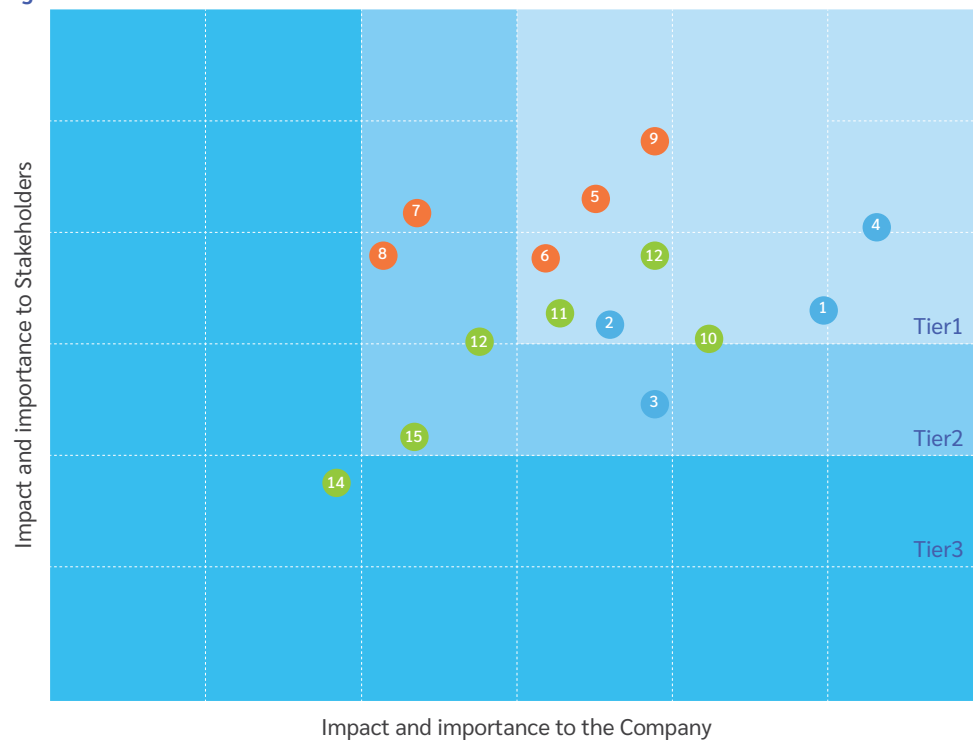


Key Sustainability Issues Assessment Results

According to the key sustainability issues assessment for the year 2022, it is found that the key issues remained unchanged from the previous year. The Company's key sustainability issues cover 15 issues and the high-priority issues cover 9 issues as follows :

Table of Materiality Analysis (Materiality Matrix)

High



Summary of the Key Sustainability Issues

We care Business



1. Good Corporate Governance and ethics in business operation
2. Risk management during crisis and abnormal state
3. Sustainable supply chain management
4. Development of technology and innovation

We care People



5. Occupational health and safety in work place
6. Labor management and human rights
7. Employee knowledge and skills development
8. Employee remuneration and retention plan
9. Stakeholders engagement to the Company

We care Social



10. Waste management form the operation
11. Community and social relation development
12. Biodiversity management
13. Climate change management
14. Water management
15. Energy management



Scope of Impact of the Sustainability Key Issues

Sustainability Key Issues	Impact Scope		Consistency		Reporting Topics
	Internal	External	Sustainable Development Goals (SDGs)	Global Reporting Initiative (GRI)	
Good Corporate Governance and Business Ethics	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Business Partners Customers Competitors Shareholders and Investors Creditor Public Sector Community, Society and Environment Media and Other Organizations 		<ul style="list-style-type: none"> GRI 2-9 GRI 2-18 GRI 3 GRI 205 GRI 207 	<ul style="list-style-type: none"> Good corporate governance Anti-Corruption Tax Management
Risk management during crisis and abnormal state	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Creditor Shareholders and Investors 		<ul style="list-style-type: none"> GRI 201 GRI 3 	<ul style="list-style-type: none"> Risk and crisis management
Sustainable supply chain management	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Public Sectors Community, Society and Environment 	 	<ul style="list-style-type: none"> GRI 2-6 GRI 3 GRI 308 GRI 407 GRI 408 GRI 409 GRI 414 	<ul style="list-style-type: none"> Supply chain management
Development of Technology and Innovation	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Competitors Shareholders and Investors Community, Society and Environment 	 	<ul style="list-style-type: none"> GRI 3 	<ul style="list-style-type: none"> Customers relationship and good experience management Business innovation with social creativity



Sustainability Key Issues	Impact Scope		Consistency		Reporting Topics
	Internal	External	Sustainable Development Goals (SDGs)	Global Reporting Initiative (GRI)	
Occupational health and safety in work place	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Public sector Community, Society and Environment 	 	<ul style="list-style-type: none"> GRI 3 GRI 403 	<ul style="list-style-type: none"> Safety Management Occupational health, safety and environment in work place
Labor management and human rights	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Shareholders and Investors Public Sector Community, Society and Environment 	    	<ul style="list-style-type: none"> GRI 3 GRI 401 GRI 402 GRI 403 GRI 404 GRI 405 GRI 418 	<ul style="list-style-type: none"> Human rights operations
Employees knowledge and skills development	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Public sectors Community, Society and Environment 		<ul style="list-style-type: none"> GRI 3 GRI 404 	<ul style="list-style-type: none"> Employee retention plan
Employee remuneration and retention plan	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Shareholders and Investors 		<ul style="list-style-type: none"> GRI 3 GRI 401 	<ul style="list-style-type: none"> Employee retention plan
Stakeholders engagement to the Company	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Business Partners Customers Competitors Shareholders and Investors Creditors Public Sector Community, Society and Environment Media and Other Organizations 	          	<ul style="list-style-type: none"> GRI 3 GRI 2-29 GRI 2-30 GRI 3 	<ul style="list-style-type: none"> Operational process for stakeholders



Sustainability Key Issues	Impact Scope		Consistency		Reporting Topics
	Internal	External	Sustainable Development Goals (SDGs)	Global Reporting Initiative (GRI)	
Waste management form the operation	• Employee	• Business Partners • Public Sector • Community, Society and Environment	 	• GRI 3 • GRI 306	• Waste and pollution management
Community and social relation development	• Employee	• Customers • Community, Society and Environment	 	• GRI 3 • GRI 413	• Community and Social responsibility
Biodiversity management	• Employee	• Business Partners • Public Sector • Community, Society and Environment		• GRI 3 • GRI 304	• Environmental responsibility • Greenhouse gas emissions mitigation management
Climate change management	• Employee	• Business Partners • Shareholders and Investors • Public Sector • Community, Society and Environment	    	• GRI 3 • GRI 302 • GRI 303 • GRI 305 • GRI 306	• Greenhouse gas emissions mitigation management
Water management	• Employee	• Business Partners • Shareholders and Investors • Public Sector • Community, Society and Environment	 	• GRI 3 • GRI 303	• Water management
Energy management	• Employee	• Business Partners • Shareholders and Investors • Public Sector • Community, Society and Environment	 	• GRI 3 • GRI 302	• Energy Management





Note : Details in the Attachment 7 : Sustainability Report



3.3 Sustainability Management in Environmental Dimension

The Company is committed to managing and reducing the environmental impacts associated with its business operations in order to enhance the ability to conduct sustainable business from upstream to downstream. The Company has established operating rules to manage the quality of the environment and biodiversity, as well as to support investments to develop, improve, and seek ways to use resources and energy, manage waste, and reduce greenhouse gas emissions so that the Company can respond to climate change in a sustainable manner. To this end, the Company has established a Sustainable Development Policy, which is published on the Company's website.

Overall Operations in Environmental Dimensions

Environmental Management	Management	Target in 2022	Administration		
			Year 2021 (base period)	Year 2022	Decrease/ Increase Percent ³⁾
Climate Change 	The amount of greenhouse gas emissions in the organization ¹⁾	decrease 5.00%	2,386.78 tCO ₂ e	2,496.00 tCO ₂ e	increase 4.58%
Electric Power 	External power consumption per number of employees ¹⁾	decrease 5.00%	13,873.32 kWh/ person	11,017.21 kWh/ person	decrease 20.59%
Water 	The amount of water consumption per number of employees ¹⁾	decrease 5.00%	4.58 m ³ / person	2.98 m ³ / person	decrease 34.93%
Waste from the production process 	The amount of waste from the production process that was properly disposed of ²⁾	-	166.79 tons	253.29 tons	increase 51.86%
	3Rs principle management ²⁾	-	163.69 tons (98.14%)	249.93 tons (98.67%)	increase 0.53%
	Landfill management ²⁾	-	3.10 tons (1.86%)	3.36 tons (1.33%)	decrease 0.53%

Remarks : ¹⁾ Targets and overall operations in 2021 and 2022 cover only Headquarter and Renewable Energy Business Group.

²⁾ Targets and overall operations in 2021 and 2022 cover only Renewable Energy Business and High Voltage Equipment Business.

³⁾ The increase or decrease that occurred in 2022 is factored by an increase in the number of employees, which results in increased activities, including the year 2021, which used as a base year is during the COVID-19 situation, which affects comparative calculations.

Note : Details in Attachment 7 : Sustainability Report

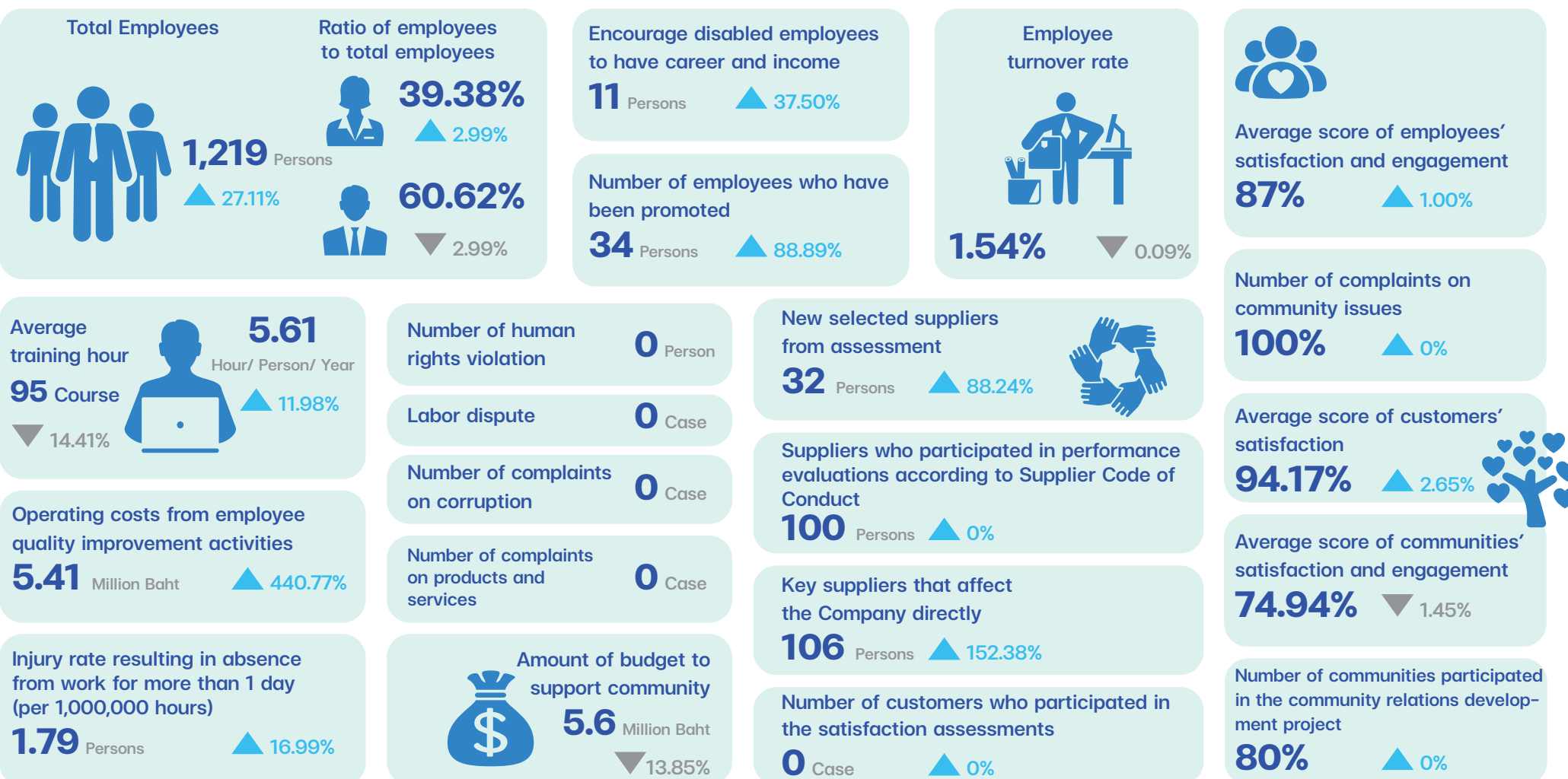




3.4 Sustainability Management in Social Dimension

The Company is aware of the business drive and the importance of participation in developing a strong, growing, and sustainable society through strengthening the working process jointly with communities within and outside the organization, as well as, community network in all sectors to be consistent with business direction, and creating a strong society. The Company strictly complies with regulations and law, including giving importance to all stakeholders equally and fairly without discrimination, while also adhering to human rights principles and having responsible towards consumers. In addition, the Company has established Sustainable Development policy and disclosed it on the Company's website.

2022 Operational Results in Social Dimension



Note : Details in Attachment 7 : Sustainability Report

4. Management Discussion and Analysis (MD&A)

As for the operating results in 2022, the Company reported a net profit attributable to owners of the company of Baht 3,010.52 million mainly due to gains from the change of interest in a subsidiary into a joint venture. Since on July 11, 2022, the Board of Directors approved Gulf Gunkul Corporation Co., Ltd., a subsidiary of the Company, which holds 100% of shares in Wind Energy Development Co., Ltd., Greenovation Power Co., Ltd. and Korat Wind Energy Co., Ltd., issued and offered ordinary shares worth 5,000 million Baht, representing 50% of the registered capital in such company to Gulf Renewable Energy Co., Ltd. The capital increase was completed on July 27, 2022, resulting in the status of such subsidiary being changed to a joint venture. The Company has classified the investment in Gulf Gunkul Corporation Co., Ltd. under the cost method in the amount of Baht 1,117 million as a joint venture of the Company in the separate financial statements.

In addition, the Group has eliminated assets, liabilities and goodwill of such subsidiaries in the consolidated financial statements and initially measured the investment in a joint venture at the fair value of its 50% interest in Gulf Gunkul Corporation Limited, and recorded a gain from the change in interest in a subsidiary to a joint venture amounting to Baht 1,330.72 million in the consolidated statement of comprehensive income for the year ended December 31, 2022, when compared to the year 2021, the Company reported an increase in profit attributable to owners of the Company in the amount of Baht 781.25 million or an increase of 35.05%.

The Company intends to expand and focused on sustainable growth in the renewable energy, transportation sectors, the High Voltage Equipment Business, Engineering & Turnkey Integrated Ecosystem Business, and Hemp and Cannabis Business. The Company also prepare for economic disruption to manage each company group effectively through a system of sound corporate governance and risk management. It maintains a minimum 15-20% growth target for 2023, which corresponds to the Company's 10-year growth rate (since listing on the Stock Exchange of Thailand). Additionally, the Company continues to seek for company possibilities to invest in, in collaboration with business partners, in order to achieve exceptional growth and development.





Analysis of the Company's Performance

Comparative performance analysis for the years ended December 31, 2022 and 2021 can be summarized as follows :

Important Financial Information	2022	2021	Change	
	Million Baht	Million Baht	Million Baht	%
Revenue from sale	1,829.22	1,474.97	354.25	24.02%
Revenue from sale of electricity	3,448.85	4,760.50	(1,311.65)	(27.55%)
Revenue from construction and rendering services	1,776.25	2,112.60	(336.35)	(15.92%)
Revenue from sale of assets under finance lease	451.37	970.09	(518.72)	(53.47%)
Gain (loss) on change in fair value of derivatives	618.03	377.40	240.63	63.76%
Gain (loss) from change in ownership interests in subsidiaries to joint venture	1,330.72	-	1,330.72	100.00%
Other revenues	60.66	72.86	(12.20)	(16.74%)
Total Revenue	9,515.10	9,768.42	(253.32)	(2.59%)
Cost of sale and rendering services	4,726.44	5,573.50	(847.06)	(15.20%)
Cost of sale and administrative expenses	1,026.88	972.08	54.80	5.64%
Net foreign exchange gain (loss)	92.69	(99.71)	192.40	192.96%
Loss on capital reduction of subsidiary	-	130.50	(130.50)	(100%)
Total Expense	5,846.01	6,576.37	(730.36)	(11.11%)
Share of profit of affiliates and joint ventures	510.64	217.84	292.80	134.41%
Finance costs	864.62	970.53	(105.91)	(10.91%)
Tax expense (tax income)	300.74	187.84	112.90	60.10%
Profit for the period	3,014.37	2,251.52	762.85	33.88%
Net profit of the parent company	3,010.52	2,229.27	781.25	35.05%
Basic earnings per share (baht per share)	0.34	0.25	0.09	36.00%

The Company's overall operating results for the fiscal year ending December 31, 2022 indicate a net profit of Baht 3,010.52 million. In comparison to the same period last year which the Company

demonstrate a net profit of Baht 2,229.27 million, the net profit has increase by Baht 781.25 million, or 35.05 percent, from the increase in total income from the recording of profit from the change of interest in the subsidiary of the 3 wind projects to a joint venture in the amount of Baht 1,330.72 million.

As a component of total revenue, the Company's consolidated financial statements disclose total revenues of Baht 9,515.10 million which is a decrease by Baht 253.32 million or 2.59% from the same period last year which the total revenues were Baht 9,768.42 million. Due to the change of interest in a subsidiary to a joint venture of the wind project on July 27, 2022, the Company has divided the shareholding proportion of 50% of the ordinary shares in the wind project group, and has changed the method of recognizing revenue from recognition in the consolidated financial statements to the method of recognizing the proportion in the transaction of profit sharing in the proportion of 50% to GUNKUL and the other 50% in the joint venture to the Gulf Renewable Energy Co., Ltd. for the income from wind projects from July 27, 2022 onwards.

Revenue from the Company's core business operations is totaled Baht 7,505.69 million in the fiscal year ended December 31, 2022. This figure was Baht 9,318.16 million last year which is a decrease by Baht 1,812.47 million or a 19.45% in revenue, which can be broken down per company category in the following manner;

Revenue from sales was Baht 1,829.22 million in the consolidated financial statements for the year ended December 31, 2022, compared to Baht 1,474.97 million in the same period last year, which is an enlargement by Baht 354.25 million 24.02%. Since in 2022, the Company has more sales transactions of electrical equipment such as Gas Switch, Surge Arrester and other equipment with the Electricity Authority and the private sector.

Revenues from electricity sales and an increase in the cost of electricity purchase Baht 3,448.85 million, as shown in the consolidated financial accounts for the year ended December 31, 2022. This compared to Baht 4,760.50 million in the same period last year, decreased by Baht 1,311.65 million or an increase by 27.55%, which can be break down by the following :

Table showing income by type of electricity from energy

Items	2022	2021	Change	
	Million Baht	Million Baht	Million Baht	%
Revenue from sales of solar power	2,338.82	2,390.41	(51.59)	(2.16%)
- Domestic	810.71	849.94	(39.23)	(4.62%)
- International	1,528.11	1,540.47	(12.36)	(0.80%)
Revenue from sales of wind power	1,110.04	2,370.09	(1,260.05)	(53.16%)



For the fiscal year ending December 31, 2022, revenue from solar electricity sales was Baht 2,338.82 million. Which is a decrease of by Baht 51.59 million or a decrease by 2.16%, compared to Baht 2,390.41 million in the same period in the previous year.

For the fiscal year ending December 31, 2022, revenue from wind power sales totaled Baht 1,110.04 million, which is a decrease of Baht 1,260.05 million or a decrease by 53.16%, compared to Baht 2,370.09 million in the same period last year, due to the decrease in the amount of electricity produced in 2022 from the changing seasons during the first quarter to the third quarter. Also due to the change of interest in a subsidiary to become a joint venture of the wind power project on July 27, 2022, the Company has divided the shareholding proportion of 50% of the ordinary shares in the wind project group, and has changed the method of recognizing revenue from recognition in the consolidated financial statements to the method of recognizing the proportion in the transaction of profit sharing in the proportion of 50% to GUNKUL and the other 50% in the joint venture to the Gulf Renewable Energy Co., Ltd. for the income from wind projects from July 27, 2022 onwards.

In the consolidated financial accounts for the year ended December 31, 2022, revenue from construction and service was Baht 1,776.25 million, compared to Baht 2,112.63 million in the same period last year, which is a decrease of Baht 336.35 million or a decrease by 15.92%. This is in accordance with the projection according to the Company's plan to recognize revenue by entering government and commercial sector construction contracts by participating in the construction bidding through a subsidiary in the group (Future Electrical Control Co., Ltd.) engaged in the bidding process, which included the construction of power stations and electrical networks and transmission lines are being built on the land and underground. The Company also intends to bid on a construction project with the Provincial Electricity Authority. The Metropolitan Electricity Authority and the Electricity Generating Authority are becoming more visible as they see chances to grow from policies that promote the development of stable electricity systems to encourage economic growth. In addition, a powertrain network is being developed to assist the country's smart power grid.

For the year ending December 31, 2022, revenue from the sale of capital lease assets from revisions to accounting rules amounted to Baht 451.37 million. This compares to Baht 970.09 million in the same period the previous year is a decrease of Baht 518.72 million or 53.47%. This is attributed to revenue from land and building leases for Lotus Projects-contracted projects and also, a percentage of the earnings from the private-sector sale of rooftop power, which is a long-term contract of 10-15 years which is the revenue generated from the sale of assets under the capital lease agreement from the adjustment of the accounting standard (TFRS 16).

In terms of sales and service costs, for the year ended December 31, 2022, Baht 4,726.44 million was spent on energy sales and distribution, as well as building and services. This compares to Baht 5,573.50 million in the same period previous year was a decrease of Baht 847.06 million. The figure was 15.20%.

The following is a summary of the details by segment :

Important Financial Information	2022	2021	Change	
	Million Baht	Million Baht	Million Baht	%
Cost of sale	1,440.36	1,174.98	265.38	22.59%
Cost of sale of electricity	1,561.58	1,895.98	(334.40)	(17.64%)
Cost of construction and rendering services	1,316.45	1,631.72	(315.27)	(19.32%)
Cost of sale of assets under finance lease	408.05	870.83	(462.78)	(53.14%)
Cost of sale and rendering services	4,726.44	5,573.51	(847.07)	(15.20%)

The cost of sales for the fiscal year ending December 31, 2022 was Baht 1,440.36 million. Compared to Baht 1,174.98 million in same period the previous year was an increased 22.59% by increasing in proportion to the increase in sales revenue.

For the fiscal year ending December 31, 2022, the cost of power sales was Baht 1,561.58 million. This compared to Baht 1,895.98 million in the same period the previous year is a decrease of Baht 334.40 million or 17.64%, due to the change of interest in a subsidiary to become a joint venture of the wind power project on July 27, 2022, the Company has divided the shareholding proportion of 50% of the ordinary shares in the wind project group, and has changed the method of recognizing revenue from recognition in the consolidated financial statements to the method of recognizing the proportion in the transaction of profit sharing in the proportion of 50% to GUNKUL and the other 50% in the joint venture to the Gulf Renewable Energy Co., Ltd. for the income from wind projects from July 27, 2022 onwards.

For the fiscal year ending December 31, 2022, construction and service costs totaled Baht 1,316.45 million, compared to Baht 1,631.72 million in the same period the previous year in accordance with decreasing revenues decreased by Baht 315.27 million or 19.32%.

For the year ended December 31, 2022, the cost of sale of assets under finance lease was Baht 408.05 million, compared to Baht 870.83 million in the same period the previous year is a decrease of Baht 462.78 million or 53.14% by decreasing in proportion to the decrease in revenue.

In terms of gross profit margin, the Company recorded a gross profit margin of 37.03% for the year ended December 31, 2022, down from 7.86% of the previous year, due to a decrease in the proportion of revenue from wind energy, which has a relatively high margin, from changing the revenue recognition method to be recognized in the consolidated financial statements to the proportional recognition method in the share of profit from joint ventures.



For the fiscal year ending December 31, 2022, gain from change in fair value of derivatives presented a profit of Baht 618.03 million, compared to Baht 377.40 million in the same period the previous year shown an increase of Baht 240.63 million or 63.76%, which arises from the US dollar swap contracts from the past wind power projects and interest rate swap contracts from solar and wind power projects, which began recording in accordance with the Accounting Standard No. 9 on Financial Instruments, effective from January 1, 2020 onwards.

For the year ended December 31, 2022, gain from change in ownership interests in subsidiaries to joint presented at the amount of Baht 1,330.72 million, an increase of 100% from the same period the previous year, since on July 11, 2022, the Board of Directors passed a resolution approving Gulf Gunkul Corporation Co., Ltd., a subsidiary of the Group of Companies and holding 100% of shares in Wind Energy Development Co., Ltd., Greenovation Power Co., Ltd. and Korat Wind Energy Co., Ltd., to issue and offer ordinary shares with a total value of Baht 5,000 million, representing 50% of the registered capital in such company to Gulf Renewable Energy Co., Ltd. The capital increase was completed on July 27, 2022, resulting in the said subsidiary changed its status to a joint venture. The Company reclassified its investment in Gulf Gunkul Corporation Co., Ltd. under the cost method in the amount of Baht 1,117 million as a joint venture of the Company in the separate financial statements.

In addition, the Group has eliminated all assets, liabilities and goodwill of the subsidiary in the consolidated financial statements, and initially measured the investment in a joint venture at the fair value of its 50% interest in Gulf Gunkul Corporation Co., Ltd., also recorded profit from the change in interest in a subsidiary to a joint venture amounting to Baht 1,330.72 million in the consolidated statement of comprehensive income for the year ended December 31, 2022.

For the year ended December 31, 2022, the cost of sale and administrative expenses was Baht 1,026.88 million, compared to Baht 972.08 million in the same period the previous year shown an increase of Baht 54.80 million or 5.64%. The main reason was an increase in the cost of the hemp and cannabis business, including the expenses for conversion of Gunkul Power Development Co., Ltd. to be listed on the Stock Exchange of Thailand.

For the fiscal year ended December 31, 2022, the exchange rate loss was Baht 92.69 million, compared to the same period the previous year shown a profit of Baht 99.71 million. This is an unrealized profit resulting from foreign currency exchange at the end of the period. The main reason is the currency conversion according to the financial statements of the loan liabilities for solar power plant projects in Vietnam where the loan agreements are made in US dollars, which the value of the Vietnamese Dong depreciated against the US dollar.

For the fiscal year ending December 31, 2022, the share of income from associates and joint venture of Baht 510.64 million was recognize, compared to Baht 217.84 million in the same period last year which is an increase of Baht 292.80 million or 134.41%, mainly due to the Company has changed the shareholding percentage of the group of subsidiaries in the 3 wind energy projects in the proportion of

50%, also changed the accounting method from the form of a subsidiary to a joint venture, resulting in a significant increase in profits from the subsidiaries in the 3 wind energy projects since July 27, 2022.

In terms of finance costs was Baht 864.62 million for the year ended December 31, 2022, compared to Baht 970.53 million in the same period last year, a decrease of Baht 105.91 million, representing a decrease of 10.91%.

In terms of corporate income tax was Baht 300.74 million for the year ended December 31, 2022, compared to Baht 187.84 million in the same period last year, an increase of Baht 112.90 million, representing an increase of 60.10%, mainly due to tax on profits from the sale of investments in subsidiaries.

Consolidated Financial Statement

Comparison of consolidated financial statements for the years ended December 31, 2022 and 2021 can be summarized as follows :

Digit : Million Baht	2022	2021	Change	
	Million Baht	Million Baht	Million Baht	%
Current assets	7,219.86	7,566.82	(346.96)	(4.59%)
Non-Current assets	25,111.60	34,918.54	(9,806.94)	(28.09%)
Total assets	32,331.46	42,485.36	(10,153.90)	(23.90%)
Current liabilities	4,804.03	9,053.60	(4,249.57)	(46.94%)
Non-current liabilities	13,387.69	20,148.54	(6,760.85)	(33.56%)
Total liabilities	18,191.72	29,202.14	(11,010.42)	(37.70%)
Shareholders' equity	14,139.74	13,283.22	856.52	6.45%
Total liabilities and equity	32,331.46	42,485.36	(10,153.90)	(23.90%)

As of December 31, 2022, the Company and its subsidiaries have total assets of Baht 32,331.46 million. This compared to total assets of Baht 42,485.35 million as of December 31, 2021. Due to the following changes, the decrease was Baht 10,153.90 million, or 23.90%, caused by the following changes :

Current assets as of December 31, 2022 is at Baht 7,219.86 million. This is a decrease from Baht 7,566.82 million in the same period previous year by Baht 346.96 million, or 4.59%.



Non-current assets as of December 31, 2022 was at Baht 25,111.60 million, compared total non-current assets as of December 31, 2021 at Baht 34,918.54 million. The decrease was Baht 9,806.94 million, or 28.09%.

The Company and its subsidiaries owed a total of Baht 18,191.72 million in liabilities as of December 31, 2022. This compared to total liabilities of Baht 29,202.14 million as of December 31, 2021 is a decrease of Baht 11,010.42 million or 37.70%, as a result of the following changes :

As of December 31, 2022, the current liabilities totaled Baht 4,804.03 million, compared to total current liabilities of Baht 9,053.60 million as of December 31, 2021. This was a fall of Baht 4,249.57 million or 46.94%.

Total non-current liabilities as at December 31, 2022 amounted to Baht 13,387.69 million. This compares to total non-current liabilities as of December 31, 2021 of Baht 20,148.54 million shows a decrease of Baht 6,760.85 million, or 33.56%.

This decrease in assets and liabilities was due to the adjustment of investment proportion in the 3 wind power plants from the original form of investment in a subsidiary to a joint venture. As a result, the Company did not record the assets in the aforementioned business in the financial statements due to the adoption of an Equity-based accounting policy. Such adjustment, resulting in the Company's net interest-bearing debt to equity ratio decreased significantly from 1.78 times to 0.92 times, which can support growth and investment of more than Baht 40,000 million within 3 years, and to support participation in applying for electricity distribution licenses in solar and wind power plants according to the country's power development plan of 5.0 gigawatts in size.

As of December 31, 2022, the Company and its subsidiaries had shareholders' equity of Baht 14,139.74 million. This compares to shareholders' equity as of December 31, 2021 at Baht 13,283.22 million, increases by Baht 856.52 million or 6.45%.



Significant Financial Ratio

Important Financial Ratio	Units	2022*	2021*
Profitability Ratio			
Earnings before tax and financial cost margin	%	34.81	35.88
Earnings before interest, tax and depreciation margin	%	57.72	50.69
Net profit margin	%	31.68	23.05
Liquidity ratio			
Current ratio**	Times	2.38	1.65
Account receivable turnover ratio	Times	6.23	4.30
Inventory turnover ratio	Times	5.27	7.71
Financial Ratio			
Interest-Bearing Debt to Equity Ratio	Times	0.92	1.78

* Deduct Extraordinary Gain means Gain from changes in fair value of derivatives, Gain from bargain purchase, Gain from sale of investment in subsidiary and Gain from changes in ownership interests in subsidiaries to joint ventures and deduct other income.

** Deduct current portion of long-term loan and debenture due within one year.

In comparison, of the profitability ratio, profitability increased from a year ago, with a pre-tax profit margin and financing costs of 43.93% in 2022, an increase from 9.02% in 2021. The profit margin in 2022 before interest, tax, and depreciation was 57.72%, which is an increase of 7.03% from the previous year. The net profit margin of 31.68% in 2022, also increases by 8.63% in 2022.

In terms of liquidity, the year 2022 had a ratio of 2.38 times which shows an increase of 0.73 times from the previous year. However, the Company maintains sufficient liquidity to operate the business, allowing it to repay the debt on time and in full compliance with the loan's terms. Additionally, when considering the ratio of trade receivables to total revenue. It is discovered that the company's trade receivable turnover ratio of 6.23 was increased by increase of 1.93 times in 2022. The Company is prudent in managing trade receivables by regularly evaluating and reviewing the creditworthiness of debtors, to mitigate the risk of trade receivables default and maintain a healthy debt collection balance. In 2022, the Company had an inventory turnover ratio of 5.27, a decrease of 2.44 times, as a result of the Company managing inventories to the appropriate level through analysis of order and customer data to anticipate demand and minimize the risk of inventory deterioration or obsolescence.

In terms of net interest-bearing debt to total shareholders' equity, the ratio in 2022 was 0.92 times, a decrease of 0.86 times a year earlier, indicating an improved ability to manage interest-bearing liabilities. The ratio is a requirement for borrowing money and must fall within the parameters of the Company's substantial supervision.



5. General Information and Other Important Information

5.1 General Information

Registrar

The Securities and Exchange Commission (SEC)

333/3 Vibhavadi Rangsit Road, Chomphon Sub District, Chatuchak District, Bangkok 10900
Tel. (66) 2033 9999 Fax. (66) 2033 9660

Regulator

The Stock Exchange of Thailand (SET)

93 Ratchadaphisek Road, Dindaeng District, Bangkok 10400
Tel. (66) 2009 9000 Fax. (66) 2009 9991

Securities Registrar

Thailand Securities Depository Company Limited (TSD)

93 Ratchadaphisek Road, Dindaeng District, Bangkok 10400
Tel. (66) 2009 9999 Fax. (66) 2009 9991

Debenture Registrar and Holders Representative

Bank of Ayudhya Public Company Limited

AA Floor, 1222 Rama III Road, Bang Phongphang Sub district, Yannawa District, Bangkok 10120
Tel. (66) 2296 3582 Fax. (66) 2683 1298

Auditor

KPMG Phoomchai Audit Company Limited

1 Empire Tower, 50th Floor, South Sathorn Road, Yannawa Sub district,
Sathorn District, Bangkok 10120
Tel. (66) 2677 2000 Fax. (66) 2677 2222

Legal Advisor

Kudun and Partners Company Limited

127 Gaysorn Tower, 23th Floor, Units C&F, Ratchadamri Road, Lumpini Sub district,
Pathumwan District, Bangkok 10330
Tel. (66) 2838 1750 Fax. (66) 2838 1795

Financial Institution

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5.2 Other Important Information

5.2.1 Other Important Information that may significantly impact Investors' Decisions

- None -

5.2.2 Limitation of Shareholders in Foreign Countries

- None -

5.3 Legal Disputes

As of December 31, 2022, the Company has no direct legal disputes that may affect the Company's assets in an amount greater than 5% of the shareholders' equity. In addition, the Company is involved in legal disputes as follows :

1. Black Case No. 445/2561 (Undecided Case No. 445/2018) of Nakhon Ratchasima Administrative Court, in which Wind Energy Development Company Limited is the first interpleader and Greenovation Power Company Limited is the second interpleader. There is a group of individuals who prosecuted the case against the Director-General of the Department of Land, the Director-General of the Royal Forest Department, the Governor of Thailand's Electricity Generating Authority, the Director-General of the Department of Highways, the Energy Regulatory Commission, and a land officer of Nakhon Ratchasima, Dan Khun Thot branch. Currently, the case is in the middle of the Nakhon Ratchasima Administrative Court's trial and is in the stage of gathering fact and collecting evidence in Nakhon Ratchasima Administrative Court. Throughout the year 2021, there has not been any progress in the case.
2. Black Case No. Sor. 81/2561 (Undecided Case No. Sor. 81/2018) of the Central Administrative Court, there is a group of individuals who have prosecuted the case against the Energy Regulatory Commission as the first defendant and Greenovation Power Company Limited as the second defendant. The Central Administrative Court has issued a verdict dated March 23, 2022, to dismiss the lawsuit in full by instructing the first defendant to supervise and inspect the second defendant to strictly comply with the conditions attached to the electricity generation license KorKorPor 01-1(2)/61-254 dated January 11, 2018. In addition, the Supreme Administrative Court currently has an order accepting the appeal of the first plaintiff with a number of people, and this case is currently being considered by the Supreme Administrative Court.

3. Patent Action

- 3.1 Black Case No. ThorPor. 124/2560 (Undecided Case No. ThorPor. 124/2017) and Red Case No. ThorPor. 102/2562 (Decided Case No. ThorPor. 102/2019) of the Central Intellectual Property and International Trade Court, in which Gunkul Engineering Public Company Limited has filed a lawsuit against the Department of Intellectual Property to request for the revocation of the patent with the name of Mr. Prasert Thammanoonkul as the right holder of the patents in the amount of 9 patents. Later, Mr. Prasert Thammanoonkul has requested to become a co-defendant, which the Central Intellectual Property and International Trade Court and the Court of Appeal Specialized Cases has made a judgment dismissing the plaintiff's lawsuit by ruling in the judgment that the patent on products that the plaintiff brought to file a lawsuit to request the revocation of the co-defendant's patents is not like or similar to the patent of the co-defendant, and the Supreme Court ordered the dismissal of the plaintiff's petition on March 15, 2022.
- 3.2 Subsequently, Mr. Prasert Thammanoonkul and Khemlek Company Limited has jointly acted as the plaintiff in suing against Gunkul Engineering Public Company Limited as the first defendant, Future Electrical Control Company Limited as the second defendant, the directors of the first defendant and the second defendant with a total of 13 people in the Black Case No. ThorPor.35/2562 (Undecided Case No. ThorPor. 35/2019) and Red Case No.Thor. Por.149/2562 (Decided Case No. ThorPor. 149/2019) of the Central Intellectual Property and International Trade Court. The statement of claim stated that the defendant infringed on the first plaintiff's patents in the amount of 12 patents, 9 out of the 12 patents of which were patents that the first plaintiff was sued by the first defendant for revocation under Article 3.1. Currently, the Central Intellectual Property and International Trade Court had an order striking the disputed case out of the Case-List since 26 August 2019 to wait for the decision of the case under Article 3.1. However, when The Central Intellectual Property and International Trade Court and the Court of Appeal Specialized Cases has ruled the judgment in the case under Article 3.1 that the patent of the first defendant (in this case) that has been brought for lawsuit to request for the revocation of the patent of the first plaintiff (in this case) is not the same or similar to the patent of the first plaintiff. The use of patented products that both courts have decided as mentioned by the first defendant is therefore not be considered as an infringement of the patent of the first plaintiff. In addition, the court scheduled to examine the witnesses of the prosecution on 2, 3 May 2023 and the court scheduled to examine the witnesses of the plaintiff on 9, 10 May 2023.



4. Black Case No. 1771/2563 of the Central Administrative Court, which Gunkul Chubu Powergen Company Limited has filed a lawsuit against the Energy Regulatory Commission as the first defendant and PTT Public Company Limited as the second defendant. Due to Gunkul Chubu Powergen Company Limited has been deprived of the right to lay gas pipes along the gas pipeline, therefore, it has filed a lawsuit asking both defendants to determine and pay compensation for the deprived land at a fair rate and pay compensation in case of damage caused by lack of income in business operations on the land that has been deprived of rights.

5.4 Secondary Market

- None -

5.5 Financial Institutions with Regular Contacts (Debentures case only)

In issuing debentures, the Company has received good cooperation and has a good relationship with several financial institutions, such as Bangkok Bank Public Company Limited, Krungthai Zmico Securities Company Limited, Capital Nomura Securities Public Company Limited, Maybank Kim Eng Securities (Thailand) Public Company Limited, Yuanta Securities (Thailand) Company Limited, and RHB Securities (Thailand) Public Company Limited. However, the Company continues to focus on developing relationship with both domestic and international financial institutions to support the Company's operations in the future.



Part 2

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6. Good Corporate Governance Policy



Good Corporate Governance (GCG) is an important subject that gets public attention. The Board of Directors, sub-committees, compliance unit, executives, and employees of the organization have adhered to a systematic management principles and good corporate governance practices, accordingly the aforementioned principles and practices have been used as guidelines for the Company's operations to determine effective management system with an emphasis on a transparent and verifiable information disclosure. This will lead to a standardized operation, boost work productivity, enhance competitiveness and add value to business owners, which shall satisfy all stakeholders. Consequently, the Company has formulated "Good Corporate Governance Policy" for the Board of Directors, sub-committees, executives, and employees to adhere to as operational guidelines, as follows :

- | | |
|------------------------|---|
| 1. Accountability | Responsible for the performance of duties and be able to clarify such actions |
| 2. Responsibility | A sense of duty with full capacity and efficiency |
| 3. Equitable Treatment | Respect the right of stakeholders and treat stakeholders with honesty and equality, as well as allowing the stakeholders to fairly participate. |
| 4. Transparency | Disclosure of information and operations with transparency and verifiability |
| 5. Value Creation | Add value to the business in both short and long term through development, improvement and increase competitiveness |
| 6. Ethics | Adhere to business ethics |

6.1 Overview of Good Corporate Governance Policy and Practices

Compliance with good corporate governance principles of the Company has been carried out and prepared with reference to the Corporate Governance Code (CG Code) for listed companies of the Stock Exchange of Thailand, which has been reviewed and improved on a regular basis in order to comply with good governance. The structure and guidelines for good corporate governance cover 4 categories, which are 1) Rights of Shareholders and equitable treatment of shareholders 2) Roles of stakeholders and sustainable business development 3) Disclosure of information and transparency 4) Responsibilities of the Board of Directors.

6.1.1 Policy and Practices Relating to the Board of Directors

Principle : The Board of Directors plays an important role in corporate governance for the best interests of the Company, responsible for the results of duties to the shareholders and is independent from the management and the Company's major shareholders.



1) Board of Directors

Components of the Board of Directors

The Board of Directors shall consist of not less than 5 directors but not more than 12 directors. Not less than one third of all directors shall be independent directors. Not less than half of all directors shall reside in Thailand. The Board of Directors shall have an appropriate proportion of female directors and the components of the Board of Directors shall be composed of directors specialized in various fields suitable to the business. There shall be the balance of power within the Board of Directors.

Qualifications of the Board of Directors

The Board of Directors shall possess visions, reliability, knowledge, competence, experiences, proficiency, including being qualified in accordance with business strategies of the Company and the Group both in terms of professional skills and specific expertise, understand the nature of business of the Company and the Group, which will be beneficial to business operation, as well as adhering to business ethics. Moreover, they must not operate as a partner or become a director of a company in other juristic persons having the same nature and conducting business in competition with the Company's business.

Furthermore, the Company's directors shall possess qualifications and no prohibited characteristics as specified by the Public Company Limited Act and shall not possess any characteristics that indicate a lack of suitability to be entrusted with managing a publicly held business as specified by the Securities and Exchange Commission. In addition, independent directors must possess independent qualifications as specified by the Company and the Notification of the Capital Market Supervisory Board and must be able to look after the interests of all shareholders and stakeholders equally, and can express their opinions freely.

In the event that the person appointed by the Company to be an independent director is a person who has or used to have a business relationship or provide professional services exceeding the value specified in (4) or (6), the Company shall be waived from the prohibition of having or used to have a business relationship or providing professional services in excess of that value only when the Company has provided the Board of Directors' opinions showing that it has considered in accordance with Section 89/7 of the Securities and Exchange Act that the appointment of such person does not affect the performance of duties and providing independent opinions, and disclose relevant information in the notice of the shareholders' meeting on the agenda of the appointment of independent directors.

In this regard, the Company has appointed a Company Secretary to advise the Board of Directors on compliance issues and undertake tasks in overseeing the Board of Directors' activities, including coordinating to ensure compliance with the Board of Directors' resolutions.

Term of office of the Board of Directors

In the Annual General Meeting of Shareholders, one-third of the current number of directors are required to leave the office. If the number of the directors could not be divided by three equally, the closest number to one-third of the directors is required to leave their office. The leaving directors in the first and the second year after registration shall be drawn to determine who is required to leave the office. For the following years, the directors who have been in the office longest are required to leave their office. The leaving directors may be re-elected to take the office again. The director is allowed to stay in the office for 3 years in each term.

When a new director is appointed to replace the director who resigned or retired, the Company is required to inform the Stock Exchange of Thailand within 3 business days from the date that the Company has received the Board of Directors' resolution or inform immediately after the Company has received the shareholders' meeting resolution (as applicable).

Scope of Duties and Responsibilities of the Board of Directors

The Board of Directors has duties and responsibilities to perform in accordance with the law, objectives, the Company's Articles of Association, and the Board of Directors' resolutions, as well as the shareholders' meeting resolution, with responsibility, due care and integrity as a prudent person who will undertake the business under the same conditions for the maximum benefits of the Company. The Board of Directors shall determine vision, mission, strategy, business direction, policy, target, direction of the operating plan and the Company's budget; supervise, oversee, monitor, and examine compliance with the policies, plans, budget provided, management structure, and approval authority guide, and regularly assess the performance of the management. Moreover, the Board of Directors shall determine the charters and major policies of the Company, as well as establishing measures and guidelines to achieve concrete results. In addition, the Board of directors has roles and duties to supervise, oversee and monitor the Company's operations and determine the corrective measure if there is any problem or difficulty to accomplish or exceed the target provided.

The Board of Directors is also responsible for providing general information reports and the Company's financial information to report and disclose to shareholders and stakeholders or general investors correctly, completely, timely, equitably and in accordance with the law provided, and to review the adequacy and suitability of the financial reporting system, internal control system and the Company's risk management to ensure confidence in accuracy, completeness, and reliability of the information, as well as to reduce the risks of fraud and prevent any illegal actions. The Board of Directors shall also acknowledge the key audit reports of the Audit Committee, sub-committees, the Internal Audit Department, auditors, and consultants of the Company, and determine the improvement and corrective measure if the defect found is significant, manage and handle the related transaction in accordance with the criteria provided under the laws.



Moreover, the Board of Directors is responsible for nominating and appointing a qualified person with no prohibited characteristics according to related laws to become the Company's director in the event that the Board of Director position becomes vacant for reasons other than retirement by rotation, as well as appointing sub-committees and Chairman of sub-committees, the Secretary to the Board of Directors and the Company Secretary to support the duties performed by the Board of Directors. Additionally, the Board of Directors shall determine the remuneration of all committees before proposing to the shareholders' meeting for approval together with appointing the senior executives of the Company and arrange the process to develop the Company's executives through the succession plan and talent management scheme to be in accordance with the Succession Plan policy. The performance assessment of all committees, including the Company's top executives are required to arrange annually.

Meeting of the Board of Directors

The Board of Directors must hold at least 6 meetings per year while every quarter meeting is arranged to consider financial statements in accordance with the law. Additional meetings may be held as the Chairman of the Board of Directors deems appropriate. All director is required to attend the Board of Directors' meetings not less than 75% of the total meetings throughout the year. In this regard, the meeting must be opened by a quorum of at least half of the total directors while the Board of Directors may make a resolution of the meeting if there are at least two-thirds of the total directors attending the meeting.

In the event that the number of director positions is vacant until the number of directors is less than the number required for a quorum, the remaining directors may act on behalf of the Board of Directors only in convening a shareholders' meeting to elect directors to replace all vacancies. Such shareholders' meeting must be held within 1 month from the date the number of directors becomes vacant and less than the number remaining for a quorum.

All directors have opportunity to discuss and express their opinion openly. In the event that a director is a significant stakeholder involved in the matter that are being considered that director has to leave the meeting during the consideration of such matter. The Board of Directors may invite sub-committee or executives of the Committee or those related to the proposed agenda to attend and provide relevant information.

The Board of Directors' meetings shall be scheduled in advance each year in order to make appointments with all members in advance.

The meeting minutes shall be recorded at each meeting. After it has been approved by the Board of Directors and signed by the Chairman of the Board of Directors, it shall be retained in both original file format and electronic format for ease of reference by the Board of Directors and persons involved.



2) Sub-Committees

The Board of Directors has appointed sub-committees to assist in the management and supervision to ensure compliance with good corporate governance, which consist of :

2.1) Audit Committee

Composition of the Audit Committee

The Audit Committee shall consist of at least 3 persons selected from the independent directors.

Qualifications of the Audit Committee

The Audit Committee must have sufficient knowledge and experience to perform duties as an Audit Committee member to support the Board of Directors in supervising and auditing the management, internal control, and compliance with relevant laws. There must be at least 1 person with sufficient knowledge, experience and expertise to be able to review the credibility of financial statements and is a person without prohibited characteristics under the Public Limited Company Act and the Securities and Exchange Act, and any other relevant laws

The Audit Committee shall not be a director assigned by the Board of Directors to make the decision on the business of the Company, parent company, subsidiaries, associated companies, or subsidiary of the same level, major shareholder or a controlling person of the Company. Including not being a director of the parent company, subsidiary company or subsidiary of the same level, only a listed company, and must be an independent director. Therefore, the Audit Committee must have independent qualifications



as required by the Company and the Securities and Exchange Act, including announcements, rules and/or regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand. Also, shall be able to protect the interests of all shareholders and stakeholders equally and freely express their opinions.

Term of office of the Audit Committee

The term of office for the Audit Committee member is 3 years. The Audit Committee member who retire by rotation may be re-appointed by the Board of Directors for another term and in the event that the Audit Committee position becomes vacant for reasons other than retirement by rotation, the Board of Directors shall appoint a qualified person to be an Audit Committee member to fulfill the number as specified by the Board of Directors. The person appointed is allowed to stay in the office for the remaining term only. The appointment of new member of the Audit Committee to fulfill the position as specified must be accelerated in order to ensure continuity in operation of the Audit Committee. However, this must not exceed 3 months from the date on which the Audit Committee member vacates office and the Company shall notify the change to the Stock Exchange of Thailand and the Securities and Exchange Commission immediately.

Scope of Duties and Responsibilities of the Audit Committee

The Audit Committee has duties and responsibilities to review accurate and reliable financial reports, including the disclosure of information sufficiently, reliably and timely by coordinating with external auditors and management to prepare financial reports both quarterly and yearly, review whether there is an internal control system and an internal audit that are appropriate, sufficient, efficient and effective by reviewing with the external auditors and internal auditors, consider the independence of the internal audit department or any other department responsible for internal auditing, as well as approving the appointment, transfer, termination of employment of the head of the internal audit or any other agency responsible for internal auditing. Including providing opinions and remark on the budget and manpower of the Internal Audit department to propose to the management for approval, consider the audit plan and the audit scope of the Company's internal auditors and external auditor, as well as, internal audit consultant (if any) to ensure that the relationship is mutually supportive and not redundant and review to ensure that the Company complies with the Securities and Exchange Act, requirements of the Stock Exchange of Thailand, or laws related to the Company's business.

The Audit Committee is responsible for considering, selecting and proposing the appointment of independent persons to act as the Company's auditors, including considering the auditor's remuneration by taking into account the reliability, adequacy of the auditor's resources, amount of audit work and experience of persons assigned to audit the Company's accounts and performance in the past year, as well as considering the removal and dismissal of the auditor. The Audit Committee shall submit such opinions to the Board of Directors for further approval, coordinate with the auditor about objectives

of the audit, scope, guidelines, plans and problems encountered during the audit and issues the auditor deems to be material. Including attending a meeting with an external independent auditor without the management attending the meeting at least once a year.

As well as, considering related party transactions or transactions that may have conflicts of interest in accordance with law and regulations of the Stock Exchange of Thailand to ensure that such transactions are reasonable and in the best interests of the Company.

The Audit Committee shall ensure that the Company comply with the Anti-Corruption policy, relevant regulations and laws, and in accordance with international standards concisely, appropriately, modern, and efficiently, as determined by the Board of Directors. Including considering the results of the review of fraud, and shall be one of the Company's channels in receiving complaints of fraudulent acts, as well as promoting and raising awareness on risk assessment, creating a preventive work system and inspection.

Moreover, the Audit Committee is responsible for assessing their performance, including providing recommendations for development and improvement and proposing to the Board of Directors for acknowledgement and use as information for determining policies for a continuous improvement of the organization.

The Audit Committee is also responsible for investigating matters notified by the Company's auditors especially in the event that any suspicious circumstances are found that the director, executive or person responsible for the Company's operation has committed an offense as prescribed in the Securities and Exchange Act (No. 5) B.E. 2559, and report the results of the initial investigation to the Securities and Exchange Commission and the auditor within 30 days from the date of receiving the auditor's notification. In addition, the suspicious circumstances that must be notified and methods to obtain facts relating to such circumstance shall be in accordance with the rules of the Securities and Exchange Commission or other relevant rules.

Moreover, the Audit Committee is responsible for reviewing to ensure that the Company has a process to continuously develop good corporate governance, as well as providing necessary guidelines and recommendations for development, encouraging the Company to determine good corporate governance as a regular agenda for the Board of Directors' meetings and the Annual General Meeting of Shareholders, and following up to ensure that the Chairman of the Audit Committee receives a copy of the report of interest in accordance with Section 89/14 of the Securities and Exchange Act from the Company Secretary within 7 business days from the date that the Company received that report.

Meeting of the Audit Committee

The Audit Committee shall hold a meeting at least once every quarter. Additional meetings may be held as the Chairman of the Audit Committee deems appropriate. At least one-half of the total number of Audit Committee member must be present at the meeting to constitute a quorum. Directors or



executives of the Company or those related to the proposed agenda maybe invited to attend the meeting to provide relevant information. If there is an agenda related to the financial statements or any other related agenda, the Company's auditor, internal auditor, and senior executives in accounting must attend to clarify the accuracy, completeness and credibility in the preparation of financial statements

The Audit Committee shall arrange a specific meeting with the Company's auditor without the management attending the meeting at least once a year, which may be held as a special meeting in addition to normal meeting or holds a meeting with the auditor without the management as one of the regular meeting agendas of the Audit Committee.

The Audit Committee's meetings shall be scheduled in advance each year in order to make appointments with all members in advance.

The meeting minutes shall be recorded at each meeting. After it has been approved by the Audit Committee and signed by the Chairman of the Audit Committee, it shall be retained in both original file format and electronic format for ease of reference by the Audit Committee and persons involved.

2.2) Risk Management Committee

Components of the Risk Management Committee

The Risk Management Committee shall consist of at least 3 persons by selecting from a number of directors and/or executives of the Company and/or qualified individuals.

Qualifications of the Risk Management Committee

The Risk Management Committee must have knowledge and understanding of the Company's business, knowledge and experience in risk management, investment management or have specific expertise that is an important factor to give advice on the Company's business operations to achieve the Company's objectives. They must not be directors, executives or entrepreneurs in businesses that operate in the same manner as the Company and compete with the Company's business, and must not possess any prohibited characteristics under the Public Company Act, Securities and Exchange Act and any other relevant laws. In addition, the Chairman of the Risk Management Committee must not be the Chairman of the Board of Directors.

Term of office of the Risk Management Committee

The term of office for the Risk Management Committee member is 3 years. The Risk Management Committee member who retire by rotation may be re-appointed by the Board of Directors for another term and in the event that the Risk Management Committee position becomes vacant for reasons other than retirement by rotation, the Board of Directors shall appoint a qualified person to be a Risk Management Committee member to fulfill the number as specified by the Board of Directors. The person appointed is allowed to stay in the office for the remaining term only.

Scope of Duties and Responsibilities of the Risk Management Committee

The Risk Management Committee has duties and responsibilities to determine policies, practices and frameworks for risk management operations of the Company to be used as a guideline for conducting business in accordance with the Securities and Exchange Act, the requirements of the Stock Exchange of Thailand or laws related to the Company's business operations, including anti-corruption measures and guidelines, establishing a risk management plan for emerging risks and analyzing the impact of emerging risks, supervising, monitoring and supporting the success of risk management at the organizational level, as well as at the project level by taking into account the risks in each aspect for assessment, analysis and decision making to ensure that there is a risk management process covering all stages of business operations. Including reviewing risk management practices and frameworks by comparing with international practice guidelines and make suggestions for improvements as appropriate to the Board of Directors. Moreover, the Risk Management Committee is responsible for assessing their performance, including providing recommendations for development and improvement and proposing to the Board of Directors for acknowledgement and use as information for determining policies for a continuous improvement of the organization.

Meeting of the Risk Management Committee

The Risk Management Committee shall hold a meeting at least 4 times a year. Additional meetings may be held as the Chairman of the Risk Management Committee deems appropriate. At least one-half of the total number of Risk Management Committee member must be present at the meeting to constitute a quorum. Directors or executives of the Company or those related to the proposed agenda maybe invited to attend the meeting to provide relevant information except for the director who is an Audit Committee member.

The Risk Management Committee's meetings shall be scheduled in advance each year in order to make appointments with all members in advance.

The meeting minutes shall be recorded at each meeting. After it has been approved by the Risk Management Committee and signed by the Chairman of the Risk Management Committee, it shall be retained in both original file format and electronic format for ease of reference by the Executive Committee and persons involved.

2.3) Nomination and Remuneration Committee

Components of the Nomination and Remuneration Committee

The Nomination and Remuneration Committee shall consist of at least 3 persons and more than half must not be the Company's executives by selecting from a number of directors and/or executives of the Company and/or qualified individuals.



Qualifications of the Nomination and Remuneration Committee

The Nomination and Remuneration Committee must be knowledgeable and competent in personnel management and must not possess any prohibited characteristics under the Public Company Act, Securities and Exchange Act and any other relevant laws. In addition, the Chairman of the Nomination and Remuneration Committee must not be the Chairman of the Board of Directors and must be an independent director only.

Term of office of the Nomination and Remuneration Committee

The term of office for the Nomination and Remuneration Committee member is 3 years. The Nomination and Remuneration Committee member who retire by rotation may be re-appointed by the Board of Directors for another term and in the event that the Nomination and Remuneration Committee position becomes vacant for reasons other than retirement by rotation, the Board of Directors shall appoint a qualified person to be a Nomination and Remuneration Committee member to fulfill the number as specified by the Board of Directors. The person appointed is allowed to stay in the office for the remaining term only.

Scope of Duties and Responsibilities of the Nomination and Remuneration Committee

The Nomination and Remuneration Committee has duties and responsibilities to determine policies, criteria and processes for recruitment, selection and nomination of qualified persons according to relevant regulations and laws to be the Company's director and/or a member of sub-committees, with a clear and transparent criteria in consistent with the Company's business strategies to propose to the Board of Directors' meeting and the shareholders' meeting depending on the case for approval. Including setting policies, criteria and guidelines for determining remuneration, remuneration method and other benefits to the Board of Directors and sub-committees that are appropriate to their duties and responsibilities towards the Company and consistent with the Company's performance, as well as, in accordance with the Company's regulations, and propose to the Board of Directors' meeting and the shareholders' meeting for approval, respectively.

The Nomination and Remuneration Committee is also responsible for reviewing the structure, criteria related to recruitment and remuneration to suit the duties, responsibilities and performance of the Company, including considering and proposing a succession plan for the top executives of the organization (Chief Executive Officer) to the Board of Directors for approval. Moreover, the Nomination and Remuneration Committee is responsible for assessing their performance, including providing recommendations for development and improvement and proposing to the Board of Directors for acknowledgement and use as information for determining policies for a continuous improvement of the organization.

Meeting of the Nomination and Remuneration Committee

The Nomination and Remuneration Committee shall hold a meeting at least 2 times a year. Additional meetings may be held as the Chairman of the Nomination and Remuneration Committee deems appropriate. At least one-half of the total number of Nomination and Remuneration Committee member must be present at the meeting to constitute a quorum. Directors or executives of the Company or those related to the proposed agenda maybe invited to attend the meeting to provide relevant information.

The Nomination and Remuneration Committee's meetings shall be scheduled in advance each year in order to make appointments with all members in advance.

The meeting minutes shall be recorded at each meeting. After it has been approved by the Nomination and Remuneration Committee and signed by the Chairman of the Nomination and Remuneration Committee, it shall be retained in both original file format and electronic format for ease of reference by the Nomination and Remuneration Committee and persons involved.

2.4) Good Corporate Governance and Sustainable Development Committee

Components of the Good Corporate Governance and Sustainable Development Committee

The Good Corporate Governance and Sustainable Development Committee shall consist of at least 3 persons and more than half must not be the Company's executives by selecting from a number of directors and/or executives of the Company and/or qualified individuals.

Qualifications of the Good Corporate Governance and Sustainable Development Committee

The Good Corporate Governance and Sustainable Development Committee must have knowledge in corporate governance and sustainable development and use knowledge including experience in working as a member of the Good Corporate Governance and Sustainable Development Committee to achieve the Company's objectives, and must not possess any prohibited characteristics under the Public Company Act, Securities and Exchange Act and any other relevant laws. In addition, the Chairman of the Good Corporate Governance and Sustainable Development Committee must not be the Chairman of the Board of Directors.

Term of office of the Good Corporate Governance and Sustainable Development Committee

The term of office for the Good Corporate Governance and Sustainable Development Committee member is 3 years. The Good Corporate Governance and Sustainable Development Committee member who retire by rotation may be re-appointed by the Board of Directors for another term and in the event that the Good Corporate Governance and Sustainability Development Committee position becomes vacant for reasons other than retirement by rotation, the Board of Directors shall appoint a qualified



person to be a Good Corporate Governance and Sustainable Development Committee member to fulfill the number as specified by the Board of Directors. The person appointed is allowed to stay in the office for the remaining term only.

Scope of Duties and Responsibilities of the Good Corporate Governance and Sustainable Development Committee

- **Corporate Governance**

The Good Corporate Governance and Sustainable Development Committee has duties and responsibilities to set policies and guidelines for good corporate governance, business ethics, anti-corruption measures and guidelines to propose to the Board of Directors and management, including supervising and monitoring to ensure that the performance of directors, executives, employees and stakeholders are in line with the established policies and guidelines and according to the law, as well as of legal regulatory authority, and in accordance with the laws or regulations related to good corporate governance principles, anti-corruption measures and guidelines, code of conduct and business ethics. Including establishing a compliance unit to ensure that the implementation is developed sequentially and appropriately, as well as reviewing the guidelines for good corporate governance practices of the Company by comparing with international practices and propose to the Board of Directors for consideration and improvement as appropriate for the Company's context.

In addition, the Good Corporate Governance and Sustainable Development Committee is responsible for supporting and promoting communication, disclosing good corporate governance principles and information on related matters continuously to be acknowledged, understood and complied with for directors, executives and employees at all level, as well as, supporting and encouraging the Company to get assessed or rated for corporate governance in order to develop and raise the standards of corporate governance of the Company continually. The Good Corporate Governance and Sustainable Development Committee also has a duty to recommend the Board of Directors, sub-committees and management regarding the rules of good corporate governance, code of conduct and business ethics, including good practices in business operations.

- **Sustainable Development/ Business Driven towards Sustainability**

The Good Corporate Governance and Sustainable Development Committee has a duty to propose to the Board of Directors and management to set policies and guidelines for sustainable development covering environment, society and corporate governance (Environment, Social and Governance - ESG) to comply with best practices according to standard/ targets both nationally and internationally, supervise and give advice on matters related to sustainability management framework (Sustainability Management) in accordance with the changing situation and

environmental factors by considering and giving advice on key sustainability issues (Materiality) and determining the time frame for the operation, as well as the person responsible for each important aspect of sustainability clearly to meet international standards. Including reviewing, following up and reviewing the Company's sustainability operating guidelines/ plans periodically.

As well as, overseeing the operations of social responsibility, environment and stakeholders, and ensure that the Company has appropriate communication channels to build confidence among shareholders and stakeholders, and monitor, follow up, evaluate, and disclose information about the Company's important sustainable development operations. Including the preparation of Sustainability Development Report that reflects practices that will lead to value creation and maximum benefit for both the Company and stakeholders, sustainably.

Meeting of the Good Corporate Governance and Sustainable Development Committee

The Good Corporate Governance and Sustainable Development Committee shall hold a meeting at least once every quarter. Additional meetings may be held as the Chairman of the Good Corporate Governance and Sustainable Development Committee deems appropriate. At least one-half of the total number of Good Corporate Governance and Sustainable Development Committee member must be present at the meeting to constitute a quorum. Directors or executives of the Company or those related to the proposed agenda maybe invited to attend the meeting to provide relevant information.

The Good Corporate Governance and Sustainable Development Committee's meetings shall be scheduled in advance each year in order to make appointments with all members in advance.

The meeting minutes shall be recorded at each meeting. After it has been approved by the Good Corporate Governance and Sustainable Development Committee and signed by the Chairman of the Good Corporate Governance and Sustainable Development Committee, it shall be retained in both original file format and electronic format for ease of reference by the Good Corporate Governance and Sustainable Development Committee and persons involved.

2.5) Executive Committee

Components of the Executive Committee

The Executive Committee shall consist of at least 5 persons by selecting from a number of directors and/or executives of the Company and/or qualified individuals. However, must not be an Audit Committee member.



Qualifications of the Executive Committee

The Executive Committee must be a person with knowledge, ability and experience that will be beneficial to the Company's business operation, with honesty and ethics in conducting business. They must not be directors, executives or entrepreneurs in businesses that operate in the same manner as the Company and compete with the Company's business, whether for the benefit of oneself or others, unless such business is a subsidiary, associated company, or joint venture, and must not possess any prohibited characteristics under the Public Company Act, Securities and Exchange Act and any other relevant laws. In addition, the Chairman of the Board of Directors must not be the Chairman of the Executive Committee.

Term of office of the Executive Committee

The term of office for the Executive Committee member is 3 years. The Executive Committee member who retire by rotation may be re-appointed by the Board of Directors for another term and in the event that the Executive Committee position becomes vacant for reasons other than retirement by rotation, the Board of Directors shall appoint a qualified person to be an Executive Committee member to fulfill the number as specified by the Board of Directors. The person appointed is allowed to stay in the office for the remaining term only.

Scope of Duties and Responsibilities of the Executive Committee

The Executive Committee has duties and responsibilities to formulate policies, guidelines, operational frameworks, goals, business plans, management structure, rules, regulations, authority, approval authority, and budget, as well as supervising, auditing, monitoring, and reviewing the Company's operations to ensure that the operations are in accordance with vision, mission, strategy, policies of the Board of Directors, and in accordance with the Securities and Exchange Act, requirements of the Stock Exchange of Thailand or requirements or laws related to the Company's business, the Company's Article of Association, including anti-corruption measures and guidelines. The Executive Committee is also responsible for ensuring that the Company maintains an appropriate and concise internal control system, determining policies and operational guideline for social, community, and environmental responsibility (Corporate Social Responsibility : CSR).

In addition, the Executive Committee shall determine the risk management framework and policy in accordance with objectives, main goals, strategies and acceptable risks of the business. Including regularly monitoring and evaluating the effectiveness of risk management.

Moreover, the Executive Committee is responsible for assessing their performance, including providing recommendations for development and improvement and proposing to the Board of Directors for acknowledgement and use as information for determining policies for a continuous improvement of the organization.

Meeting of the Executive Committee

The Executive Committee shall hold a meeting at least once a month. Additional meetings may be held as the Chairman of the Executive Committee deems appropriate. At least one-half of the total number of Executive Committee member must be present at the meeting to constitute a quorum. Directors or executives of the Company or those related to the proposed agenda maybe invited to attend the meeting to provide relevant information.

The Executive Committee's meetings shall be scheduled in advance each year in order to make appointments with all members in advance.

The meeting minutes shall be recorded at each meeting. After it has been approved by the Executive Committee and signed by the Chairman of the Executive Committee, it shall be retained in both original file format and electronic format for ease of reference by the Executive Committee and persons involved.

In 2022 the Company held the shareholders' meeting, the Board of Directors' meetings and each sub-committee's meetings with a clearly defined agenda, together with complete and sufficient supporting documents. Those documents were sent to the directors at least 7 days in advance so that the directors have sufficient time to study the information before attending the meeting. The following table summarizes the number of meetings scheduled in 2022 :

Meeting Type	Number of Meetings (times)
• The 2022 Annual General Meeting of Shareholders	1
• The Extraordinary General Meeting of Shareholders	-
• The Board of Directors' meetings	11
• Meeting between independent directors and auditors to discuss various issues related to management in the Company.	1
• Meeting among non-executive directors to discuss and exchange opinions on issues related to duties and responsibilities and good corporate governance	1
• The Audit Committee's meetings	5
• The Risk Management Committee's meetings	6
• The Nomination and Remuneration Committee's meetings	2
• The Good Corporate Governance and Sustainable Development Committee's meetings	4
• The Executive Committee's meetings	29



3) Limiting the number of listed companies in which a director can hold office

In order to perform duties of the Board of Directors efficiently, the Company therefore sets a policy to limit the number of listed companies that each director can hold not more than 5 directorship positions and each executive director can hold directorships in listed companies outside business group not more than 2 companies.

4) Determination of remuneration for directors and executives

The Board of Directors has assigned the Nomination and Remuneration Committee to consider and review the structure of remuneration system and remuneration rates that are suitable both in short and long term, which must be in the average level when compared to the same industry and/or from the results of remuneration surveys and able to compete in the market by taking into account the sufficiency of duties and responsibilities that the directors are responsible for. In addition, all types of remuneration rates for all committees must be approved by the shareholders' meeting.

Executives at all level, including top management, shall be remunerated with salary and annual bonus, as well as any other remuneration, whether short or long term, in accordance with the Company's remuneration policy by taking into account the Company's operating results and the performance of each executive.

5) Performance assessment of the Board of Directors, sub-committees, Chief Executive Officer, Company Secretary and Secretary to the Audit Committee

All committee has its own performance assessment to consider the work and use it as a guideline for development or improvement in order to cover all aspects of the directors' performance and consistent with the nature of the Company's business.

The Board of Directors shall assess the annual performance of the Chief Executive Officer, which is a comparative assessment of the goals achievement at the Company level and abilities at the individual level. Factors for consideration consist of qualitative measures, which include leadership, strategy formulation, strategy implementation, planning, financial performance, as well as, relationship with the Board of Directors, relationship with external relations, management, relationship with personnel, succession, knowledge of products and services, and personal attributes.

In addition, the Company Secretary's performance shall be assessed by the Board of Directors and the Secretary to the Audit Committee's performance shall be assessed by the Audit Committee in order to consider the performance and use it as a guideline for developing and improving the performance to be more efficient.

The assessment process and criteria shall be reviewed by each committee annually.

5.1) Assessment of the Board of Directors' performance

The Company has a policy for the Board of Directors to self-assess their performance through group and individual assessments as follows :

- Self-assessment of the Board of Directors
 - To assess the performance of the Board of Directors as a whole.
- Self-assessment of each director
 - To assess the proper performance of duties as a Board of Directors' member on an individual basis.

5.2) Assessment of sub-committees' performance

The Company has a policy for the sub-committees to self-assess their performance through group assessments. The objective is to assess the overall performance of sub-committees as a whole.

5.3) Assessment of Chief Executive Committee's performance

The Company has a policy requiring the Board of Directors to assess the performance of the Chief Executive Officer.



5.4) Assessment of Company Secretary and Secretary to the Audit Committee's performance

The Company has a policy requiring the Board of Directors to assess the Company Secretary's performance and the Audit Committee shall assess the Secretary to the Audit Committee's performance.

6) Development of the Company's directors and executives

The Company has a policy to encourage all directors and executives to attend training courses to enhance their knowledge under good corporate governance plan on a continuous basis. The training may be done internally within the Company or training from outside institutions.

7) Orientation for new directors

The Company recognizes the importance of the new director's performance of duties by stipulating that all new directors must attend "Orientation for new directors" as specified by the Company.

8) Reporting of the Board of Directors

- 8.1 The Board of Directors is responsible for the Company's consolidated financial reports and financial information. Such financial reports have been prepared in compliance with the generally accepted accounting principles in Thailand through a selection of appropriate accounting policies and constant practice. The Audit Committee and the auditor shall jointly consider and review the appropriateness of accounting policies that are regularly practiced in the preparation of financial reports. The Board of Directors has emphasized that the organizers have to use careful discretion in preparing and that important information shall be sufficiently disclosed in the notes to the financial statements.

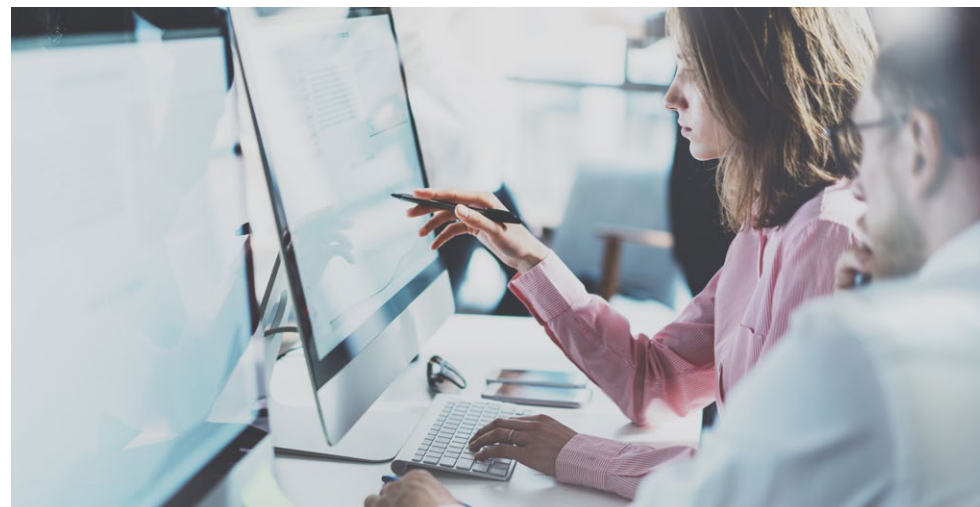
In addition, the Board of Directors has assigned the Audit Committee to be responsible for the quality of financial reports and internal control systems.

- 8.2 The Board of Directors is responsible for disclosing important information of the Company, which shall be the information that affects the price of securities or important to investment decisions or affecting the shareholders' right.
- 8.3 The Board of Directors is responsible for disclosing the charters of all committees and significant policies of the Company.
- 8.4 The Board of Directors is responsible for disclosing the following items in the Annual Registration Statement/ Annual Report (Form 56-1 One Report).

1. Process and criteria for assessing the performance of the Board of Directors as a whole and individual, including all sub-committee as a group and Chief Executive Officer.
 2. Number of meetings held and number of meeting attendance of each director, which shall be disclosed both of the Board of Directors and all sub-committees.
 3. Remuneration of each director and sub-committee member.
 4. Information on development and training of each director and sub-committees in the past year
 5. Report on the purchase and sale of shares/ holding securities in the Company, as well as, changes in the holdings of the Company's directors and executives during the fiscal year, as defined by the Securities and Exchange Commission, on an individual basis.
- 8.5 The Board of Directors is responsible for reporting any other items that the Board of Directors deems that shareholders and general investors should be informed under the scope of authority and responsibility assigned by the shareholders.

9) Supervision of Operations of Subsidiaries and Associated Companies

The Company has established rules and regulations for the nomination and election of directors of subsidiaries and associated companies that they must be approved by the Board of Directors, which that person has a duty to perform for the best interest of the subsidiary or associated company. Moreover, the Company has determined that the person appointed must receive approval from the Board of





Directors before voting or exercise voting rights on important matters at the same level that requires approval from the Board of Directors if it is operated by the Company itself. In this regard, the sending of the Company's directors to be representatives in such subsidiaries or associated companies is in accordance with the Company's shareholding proportion.

Additionally, in case of a subsidiary, the Company sets regulations for the person appointed by that company must ensure the subsidiary has accurate and complete regulations regarding related party transactions, acquisition/ disposition of assets, or any other important transactions of such companies, and apply the regulations related to disclosure of information and entering into such transactions in the same manner as the Company's regulations. The person appointed must also supervise the storage of information and accounting records of subsidiaries for the Company to audit and collect to prepare the consolidated financial statements on time as well.

10) Risk Control and Management Policy

The Board of Directors realizes the importance of risk management and is directly responsible for organizational risk management, which include key risks, sustainability risks (ESG risks), and emerging risks. The objective is to support the operations of the Company's management to operate efficiently and achieve goals, as the organization may face uncertain business events that may affect the achievement of the Company's objectives or goals.

The Board of Directors has established policies and frameworks for risk management related to all aspects and cover business risk factors by determining guidelines for internal practices in the Company, which consider from the probability of occurrence and the degree of severity of the impact. Preventive and corrective measures to reduce risks have been determined, as well as, reporting systems, regular monitoring and evaluation processes, including a focus on early warning signs.

The Company has explained and disclosed significant risk factors in the Annual Registration Statement/ Annual Report (Form 56-1 One Report).

In addition, the Board of Directors has assigned the Risk Management Committee to be responsible for establishing the Company's Risk Management policy and framework, as well as, defining the roles and responsibilities of management, establishing a risk management plan for emerging risks and analyzing the impact of emerging risks by supervising and assisting in the success of risk management at the corporate and project levels, increasing the importance of risk-based considerations, and examining each aspect in order to make decisions on the use of resources and processes properly and in consistent with organizational direction and enhance risk management capabilities throughout the organization.

Moreover, the Board of Directors has assigned the Audit Committee to be responsible for reviewing the internal control system and conducting internal audit to ensure that the operation is efficient and covers all aspects of accounting and finance, property care, performance, and operations in accordance with applicable laws and regulations. The Internal Audit Department is responsible for assessing risks and evaluating control activities at the operational level within the organization, including reviewing financial reports and risk management information by reporting to the Audit Committee on a quarterly basis.

6.1.2 Policies and Practices relating to Shareholders and Stakeholders

(Information from the Good Corporate Governance Policy)

1. Right of Shareholders and Equitable Treatment of Shareholders

Principle : Shareholders have ownership rights by controlling the Company through appointing the Board of Directors to act on their behalf and have the right to make decisions on material changes of the Company. Therefore, the Company should encourage shareholders to exercise their rights. In addition, all shareholders both executive and non-executive shareholders, including foreign shareholders should be treated equally and fairly.

1) Rights of Shareholders

The Board of Directors realizes the significance of the shareholders rights and will not violate or restrain the shareholders' rights both the major and minor shareholders, Thai or foreign shareholders. The fundamental rights of shareholders according to law and the Company's Articles of Association are as follows;

1. Right to sell, buy or transfer the share
2. Right to receive the dividend
3. Right to get the equal treatment with regard to treasury stock
4. Right to receive the Company's information adequately, completely, timely, transparently, regularly, and receive the up-to-date information through the Company's website both in Thai and English.



5. Right to attend and cast the vote in the shareholders' meeting, or assign the proxy to attend and cast the vote on his behalf to appoint or remove the director from the position, determine the directors' remuneration, appoint the independent auditor, determine the auditor's remuneration, as well as any matter affecting the Company such as dividend allocation, establishment or change of the Articles of Association and Memorandum of Association, decrease or increase of capital, approval of the special transaction, etc.
6. Right to propose the agenda for the shareholders' meeting in advance
7. Right to nominate the name for the election of the Company's director
8. Any rights as stipulated by the laws

In addition, the Board of Directors has determined the policy to facilitate and encourage shareholders to attend the shareholders' meeting to support them, including investors, to exercise the fundamental rights with regard to meeting attendance and voting as follows :

1.1) Procedure prior to the meeting of shareholders

- Allow the shareholders to submit the opinion, inquiry or agenda prior to the meeting date. In this regard, the principles shall be clarified via the website of the Stock Exchange of Thailand, and on the Company's website.
- Allow the shareholders to nominate the name for the election of the Company's director prior to the meeting date. In this regard, the principles shall be clarified via the website of the Stock Exchange of Thailand, and on the Company's website.
- Submit the invitation letter for the meeting, together with meeting documents to the shareholders at least 14-21 days in advance (or in time required by law) and publicize in the newspaper not less than 3 consecutive days to notify the shareholder's meeting date in accordance with the law. The invitation letter for the meeting, together with meeting documents shall be publicized on the Company's website both in Thai and English not less than 28 days prior to the meeting day of the shareholders.
- Important information shall be completely specified in the invitation letter, including the meeting date, time, place, agendas, supporting documents of agendas together with the directors' opinion, vote counting principles of each agenda in compliance with the law, proxy form as stipulated by the law, list of independent committees who can be a proxy of the shareholder in the meeting, explanation on the proxy appointment method, registration, presence of the documents for the meeting attendance, voting in the meeting, map of the meeting place, as well as the Articles of Association regarding the meeting of the shareholders and the voting.

1.2) Procedure on the meeting day of shareholders

- Set the date, time and place of the meeting by considering the convenience of the shareholders. Prepare the personnel and technology adequately and suitable to the number of shareholders.
- The meeting of the shareholders shall be carried out in accordance with the agendas indicated in the invitation letter. The agendas not previously notified in advance of the meeting shall not be unnecessarily added to the meeting.
- Prepare the voting card with bar code. The independent staffs shall count or check the votes and announce the result to the meeting. The voting result shall be recorded in the meeting minutes.
- The Chairman of the meeting shall clarify the meeting rules, vote casting method, and time allocation. The Chairman shall allow all shareholders to ask, opine, and make suggestion. The Board of Directors, the Audit Committee, chairmen of all committees, involved executives, auditor and/or legal consultant and/or independent financial consultant and/or the crediting bank (as the case may be) shall attend the shareholders' meeting to answer all questions in the meeting. Additionally, the executives, Company Secretary, and secretaries of all committees shall also attend the meeting.
- In case the shareholder cannot attend the meeting by himself, the Company shall allow the appointment of independent committee or any proxy to attend the meeting on his behalf.

1.3) Procedure after the meeting of shareholders

- The resolution of the shareholders' meeting shall be announced on the voting day or at latest on 9.00 a.m. of the following day. The announcement shall be informed via the website of the Stock Exchange of Thailand, and on the Company's website.
- The meeting minutes shall correctly and completely show the information, indicating the inquiries of the shareholders, the answers of the Board of Directors for those inquiries, within 14 days of the meeting date. The said minutes shall be delivered to relevant agency within the specified time. Moreover, the meeting minutes shall be displayed on the Company's website for the inspection of the shareholders and involved persons.

For the year 2022, the Company convened the 2022 Annual General Meeting of Shareholders on April 27, 2022 at Grand Ballroom, 3rd Floor, the Emerald Hotel, 99/1 Ratchadapisek Road, Dindaeng, Dindaeng, Bangkok 10400. All directors of the Board of Directors, senior executives, secretary of all committees, and Company Secretary, including representatives from auditor and legal advisor attended the meeting in a total of 26 persons to clarify details related to the meeting agenda and answer questions from the shareholders. The Company has given the Thailand Securities Depository, which is the Company's registrar, to be responsible for delivering the shareholders' meeting invitation letter and supporting documents for each agenda together with the Annual Report,



regulations and rules relating to the shareholders' meeting and voting, proxy forms and information of independent directors who will act as representatives for proxies in order to facilitate shareholders in case they are unable to attend the meeting in person. Including the form for obtaining the Annual Report in print and a map of the meeting place. These were delivered to the shareholders in advance of the meeting and the Company disclosed the shareholders' meeting invitation letter and supporting documents, including the Annual Report and the aforementioned documents on the Company's website at www.gunkul.com in advance prior to the meeting date so that shareholders can access information related to the shareholders' meeting more conveniently and quickly. For registration and vote counting, the Company clarified the rules and voting methods to the shareholders prior to the start of the meeting and gave the shareholders an opportunity to express opinions and ask questions on matters related to the Company.

2) Protection of Fundamental Rights

The Board of Directors has established the policies and regulations to ensure all shareholders are equally treated and fundamental rights are protected, including the provision of information prior to the shareholders' meeting, protection of the rights of minority shareholders and foreign shareholders, prevention of the use of inside information, avoidance of conflict of interest and related party transactions, as well as the internal control and auditing, as follows;

2.1) Information provision prior to the shareholders' meeting and protection of rights of minority shareholders

- The invitation letter and supporting documents shall be made, both in Thai and English, with the details of meeting date and time, agendas, and opinions of the Board of Directors. Those shall be announced via the website of Stock Exchange of Thailand and the Company's website at least 28 days in advance prior to the meeting day of shareholders.
- The Company shall notify the shareholders of the procedure and rules of the meeting, covering the registration process, proxy appointment and vote casting.
- The Company shall allow the shareholders to submit the inquiry or agenda and nominate the name for the election of the Company's director prior to the meeting date. In this regard, the principles shall be clarified via the website of the Stock Exchange of Thailand, and on the Company's website not less than 28 days in advance prior to the meeting day of the shareholders.
- The meeting of the shareholders shall be carried out in accordance with the agendas indicated in the invitation letter. The agendas not previously notified in advance of the meeting shall not be unnecessarily added to the meeting.

- The shareholder who is a director or executive shall disclose the information regarding his interests and of the related persons, and shall not be entitled to cast the vote for the agenda in which he has the interest.

3) Protection of Fundamental Rights

3.1) Supervision of the use of Inside Information

- The Company shall notify directors and executives to report their securities holdings in the Company and any changes in their holdings, including of their spouse and minor children, to the Securities and Exchange Commission ("SEC") in accordance with Section 59 and the penalties imposed by Section 275 of the Securities and Exchange Act B.E. 2535 (as amended), and submit a copy to the Company Secretary on the same day. The securities holdings report shall be reported to the meeting of the Good Corporate Governance and Sustainable Development Committee and the Board of Directors for acknowledgement on a quarterly basis.
- The Company requires the directors, executives, employees, operators, and person involved in operation of the Company and the Group who receive material inside information that could affect the trading price of securities refrain from trading in the Company's securities prior to the date on which the financial statements or inside information will be made public.

1. Independent Directors

Not less than 7 days or upon receipt of supporting documents for the Board of Directors' meeting whichever is earlier.

2. The Executive Committee, executives, employees, and persons involved in the Company and the Group's financial information that are capable of acknowledging or possessing internal information.

Not allow to trade the Company's securities from the date of acknowledging the Company's financial statements to the date of disclosing financial statements to public via the Stock Exchange of Thailand channel, due to the recognition of financial information may pose a risk or result in the use of the Company's insider information.

However, after the Company discloses information to public, they are allowed to trade the Company's securities following the 24-hour period.

Additionally, those with access to such insider information are prohibited from disclosing it to others until it has been notified via the Stock Exchange of Thailand's channel.

- The Company's directors, executives, employees, person working for the Company and the Group are prohibited from using insider information of the Company that has or may affect the Company's securities price that has not yet been disclosed to the public for trading,



offering for trading, or soliciting other people to trade shares or other securities (if any) of the Company, whether directly or indirectly, including disclosing such information to others, whether receiving benefit or not.

- The Company has taken significant disciplinary action against those seeking benefits from the use of insider information or disclosing it to the extent that it causes damage to the Company by considering the appropriate punishment, which include a verbal warning, a written warning, probation, as well as termination of employment due to termination, or dismissal, as the case may be. The Board of Directors has approved the aforementioned guidelines.

3.2) Prevention of Conflict of Interest

- The Company requires those who are involved or have an interest in the considered transaction must notify the Company regarding the relationship or interest in the said transaction. If that person is a director, such person shall not participate in the decision-making, including abstain from approval of such transactions.
- If a conflict of interest arises in any transaction that is not a general trade condition, such transaction must be proposed to the Board of Directors and must be treated in accordance with the rules of the Capital Market Supervisory Board, the Securities and Exchange Commission, the Stock Exchange of Thailand, or any other relevant regulatory authority.

3.3) Related Part Transactions

- If a related party transaction occurs, the Company shall comply with the Securities and Exchange Act and all applicable regulations, notifications, orders, or requirements of the Capital Market Supervisory Board, the Securities and Exchange Commission, the Stock Exchange of Thailand, and any other applicable regulatory authority, including the Company's requirements on related party transaction disclosure according to the accounting standard established by the Federation of Accounting Professions.
- In case of related party transaction is a normal business transaction and a transaction supporting normal business with general trading conditions, including transactions of giving or receiving financial support, in which a listed company or subsidiary provides financial assistance to a juristic person of which the listed company or subsidiary is a shareholder in proportion to their participation of interests in that juristic person under general trading conditions or better, the Company shall comply with the framework of authority approved by the Board of Directors' meeting.
- In case of related party transaction is other type of transaction, the Company shall propose to the Board of Directors for consideration by complying with the regulations of the relevant regulatory authority.

3.4) Internal Control and Internal Audit

- The Board of Directors, the Audit Committee, and management are directly responsible for establishing and maintaining internal control system, including taking action to ensure efficiency of the system on a regular basis to foster confidence in an accurate and trustworthy of information system and financial report.
- The Company has established an Internal Audit Department to be responsible for auditing the effectiveness of the Company's operations and report audit finding directly to the Audit Committee.
- The Audit Committee has evaluated the suitability and sufficiency of internal control system at least once a year by proposing to the Board of Directors for consideration and suggestion, and specify in the Annual Registration Statement/ Annual Report (Form 56-1 One Report).

2. Roles of Stakeholders and Sustainable Business Development

Principle : Stakeholders should be taken care of by the Company according to the rights available under the relevant laws. The Board of Directors should consider establishing a process to promote cooperation between the Company and stakeholders in order to create financial wealth and sustainability of the business.

The Board of Directors gives importance to all stakeholders according to the law or agreement with the Company, which include shareholders, customers, business partners, creditors, rivals, employees, society, community and public sector. Accordingly, the Board of Directors has established the practice guidelines for each stakeholder, as well as guidelines for conducting business under environmental quality standards, Anti-corruption, non-infringement of intellectual property, non-involvement in human rights violations based on the principles of fairness and equality for all personnel in the Company to adhere to as a guideline by having a mechanism to monitor and ensure compliance, as well as, channels for receiving suggestions or complaints. In this regard, the Company has established the policy or practice guideline, as follows;

1) Business Drive for Sustainability

- Define clear responsible persons and roles to drive each aspect of sustainability, including communicating to executives, employees and relevant stakeholders to acknowledge their roles, duties and responsibilities in various sustainability issues to achieve an integrated connection.
- Determine the operational framework or strategy for sustainable business development in line with the Company's corporate sustainability policy and goals in order to achieve the specified sustainability goals.



- Regularly follow up on operations to be able to adjust the operational guidelines in accordance with the situation, including checking the performance, analyzing weaknesses and strengths to adjust as a guideline for implementing a new round of work plans.
- Disclose operating results and communicate to stakeholders to create understanding and awareness about the Company's operations in order to create value for the business, including responding to the investors' expectations in terms of returns and reliability in a long-term through Annual Registration Statement/ Annual Report (Form 56-1 One Report).

2) Responsibility towards Stakeholders

2.1) Responsibility towards Stakeholders according to the law or agreement with the Company

- Shareholder** : The Company shall operate business with honesty, transparency, morality, and ethics, as well as, disclosing information adequately, completely, and in a timely manner. The Company shall develop the business to grow and progress, create appropriate and good returns for shareholders and investors on a continuous and sustainable basis.
- Customer** : The Company shall be responsible to the customers by maintaining the quality and standard of products and services, as well as responding to the customers' demands completely and comprehensively to create their long-term satisfaction and customers confidentiality [Ref. CGR, B13]
- Business Partners** : The Company shall treat business partners transparently and fairly [Ref. CGR, B17] in accordance with the trade condition and the agreement. It shall has the policy to create and constantly develop the relation with business partners.
- Creditors** : The Company shall treat creditors fairly and be responsible [Ref. CGR, B20] by complying with the trade condition and the agreement, and deliver information according to the creditor's request.
- Rivals** : The Company shall operate business under the framework of a transparent and fair competition, and contribute to the market growth for mutual benefit in the industry.
- Employees** : The Company shall treat employees fairly and equally without discrimination, and grant them a proper remuneration in consistent with the business growth, including creating a quality work environment.
- Society/Community and Environment** : The Company shall be responsible for ensuring that the Company's operations are not affected community and social environment, including complying with the relevant laws and regulations. The Company shall also conduct corporate social responsibility (CSR) activities to sustainably develop the community and society.

Public Sector : The Company shall operate business to strengthen and develop the national progress, and adhere to the relevant laws, rules, requirements and regulations.

2.2) Communication channels with the Board of Directors for submitting suggestions, whistleblowing, or complaints

To safeguard the rights of stakeholders, the Board of Directors has established channels for all stakeholders to submit suggestions, whistleblowing, and complaints on actions suspected of violating or not complying with law, rules, regulations, or Good Corporate Governance policy, including inaccurate financial reporting or a deficient internal control system. The Company will investigate the fact and take steps to ensure fairness to all parties. In addition, whistleblowers' information will be kept confidential to safeguard and protect the whistleblowers.

Recommender or whistleblower or complainant is able to communicate to the Board of Directors as follows :

Whistle Blowing and/or Complaint Channels



Contact the Audit Committee :
audit_committee@gunkul.com



Website : www.gunkul.com
at "Whistle Blowing form"



Sealed postage to
Chairman of the Audit Committee :
Gunkul Engineering Public Company Limited
1177 Pearl Bangkok Building, 8th Floor, Phahonyothin Road, Phayathai,
Phyathai, Bangkok 10400



Whistle Blowing and Corruption Complaints Box
(Set in the Company and can be opened by the Secretary to the Audit Committee)



3) Sustainability Management in Social Dimension

3.1) Human Rights

The Board of Directors, executives, and employees at all level are aware of and adhere to the importance of respecting human rights, responsibility towards society and stakeholders, including strictly avoiding and preventing human rights violations in accordance with the Good Corporate Governance policy, legal and international principles. The Company also expects persons involved in business operation throughout business value chain to respect human rights and proceed according to the Company's principles and practice guideline, including identifying protection measures, impact reduction, and responsibility for human rights impacts in case of human rights violation. In addition, the Company has formulated the "Human Rights" policy as a guideline for executives and employees at all level to adhere to, and the Company also use measures to fairly protect complainants or those who cooperate in reporting human rights violations and protect those who report on human rights violation related to the Company. The Company's channels to report human rights violations are as specified in 2.2.

3.2) Anti-Corruption and Whistleblowing Policy

The Board of Directors places importance on anti-corruption, therefore has established "Anti-Corruption and Whistleblowing" Policy to serve as a guideline for the Company's operations with transparency, sustainably, and as part of business operations.

The Company and the Group have a policy to prohibit directors, executives, employees, and contractors from engaging in any form of corruption, whether directly or indirectly, whether as a recipient, giver, or offer a bribe to an individual or organization. The policy and practice guidelines shall be reviewed on an annual basis to be consistent with changes in the business, rules, regulations, and legal requirements. In addition, the Company joined the Thai Private Sector Collective Action Against Corruption (CAC) in 2017 and renewed in 2020.

The whistleblower or complainant who witnesses an act that cause suspicions of corruption at the Company may report the information through the channels defined.

The whistleblower or complainant must specify the details of whistleblowing or complaints (Name or position of the complainant, committed crimes discovered, when the perpetrator is seen) along with name, address, and telephone number, and submit to one of the channels as specified in 2.2.

4) Sustainability Management in Environmental Dimension

The Company is aware of the importance of changing environment and climate, therefore is committed to drive a sustainable business growth together with environmental and climate change management, including for social and environmental responsibilities. The Company has prepared environmental

management system by considering it as part of business operation, continuously following up and reporting development performance, including assessing sustainable development issues (Materiality) and taking action to reduce the use of resources and energy according to goals. Also, the Company has formulated the "Environment and Climate Change Management" Policy for the executives and employees to adhere to.

5) Bring Innovation to the Organization

- The directors and executives push, support, and prepare to keep up with new events and changes that will occur in the future by cultivating personnel to understand, have creativity and innovative thinking, dare to think creatively, as well as enhancing their knowledge and skills until they can apply those to develop work processes and keep getting better continuously.
- The directors and executives must raise awareness of everyone in the organization to learn and develop the existing potential of the organization to its full potential by bringing innovation to further develop or innovation created by people in the organization as the main factor, determining challenging goals on the basis of organizing operational processes by using innovation to take part in driving towards the goals as a guideline for organizational management.
- The directors and executives promote and provide opportunities to everyone in the organization to think creatively, dare to bring good ideas to further develop into innovations or invent new things, such as new products, processes or services that are valuable, useful, and can be extended to develop new business model innovations.

3. Roles of Stakeholders and Sustainable Business Development

Principle : The Board of Directors shall ensure that the Company discloses all material information both financial and non-financial, accurately, completely, timely, and transparently, through channels that are easily accessible, equal, and reliable.

The Board of Directors places importance on the disclosure of an accurate, complete, transparent, timely, and lawful information and regulations stipulated by the Stock Exchange of Thailand or the Securities and Exchange Commission, including financial reports and general information, as well as other significant information that affect the stock price and decisions of the Company' investors and stakeholders. For those associated with the Company to receive information in an equal manner, the Company will disclose information on the system of the Stock Exchange of Thailand and the Company's website.

1) Information Disclosure

- The Board of Directors recognizes the responsibility towards the financial reports that are accurate, complete, true, and reasonable, and prepared in accordance with generally accepted accounting



principles. Therefore, the Board of Directors has assigned the Audit Committee to be responsible for reviewing financial reports to ensure accuracy, completeness, and reliability. The Company is required to disclose information in a timely manner in accordance with applicable regulatory requirements.

- The Company is required to disclose the roles and responsibilities of the Board of Directors and sub-committees, credential of each director, the number of meetings of all committees held and the attendance of each director, the remuneration of directors and senior executives, the process and criteria for evaluating the performance of all committees, information on development and training of each director, a report on stock trading/ holdings of the Company's securities, as well as any change in securities holdings of each director and executive according to the definition of the Securities and Exchange Commission. The aforementioned information shall be disclosed in Annual Registration Statement/ Annual Report (Form 56-1 One Report).
- The Company requires all employees not to misuse inside information or seek benefits for themselves or families or their peers in an improper manner, including maintaining confidentiality of the Company information and internal documents. In addition, the use of inside information must be within the scope of duties and responsibilities that employees are assigned.

2) Channel to Contact the Company Secretary/ Investor Relations Department

Company Secretary/ Investor Relations Department



Telephone : (66) 2 242-5867 / (66) 2 242-5876



E-mail : ir@gunkul.com



Website : www.gunkul.com

The Company discloses information relating to the Company through various channels to keep shareholders and general investors informed accurately and completely, such as the Company's quarterly and annually operating results, information on investments in various projects, the reviewed/ revised

policies, as well as the preparation of reports on financial and general information of the Company together with the Board of Directors' responsibilities towards the financial report and the auditor's report. The aforementioned information have been disclosed in the Annual Registration Statement/ Annual Report (Form 56-1 One Report). Whereas other matters also have been disclosed according to good corporate governance principles in the Annual Registration Statement/ Annual Report (Form 56-1 One Report) and the Company's website.

Apart from disclosing information in accordance with regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand, the Company has established communication channels with shareholders, investors, and analysts both domestically and internationally. Investor Relations Department is responsible for directly communicating and disclosing information.

In 2022, the Company organized the following activities :

- 4 meetings to announce quarterly and annual performance to shareholders, investors and analysts (Opportunity Day)
- 2 analysts meetings
- 28 meetings with analysts and investors who request to acquire an overview of the Company's business operations
- 40 interviews with journalists and media
- Regularly published press releases whenever there is important investment or business activities.

In addition, information has been disclosed on the Company's website at www.gunkul.com in both Thai and English for all stakeholders to be able to get information equally and thoroughly. Interested parties can inquire or request information from the Investor Relations Department of the Company at telephone number 0-2242-5876 0-2242-5867 and 0-2242-5868 or e-mail : ir@gunkul.com

6.2 Business Ethics

The Board of Directors is responsible for setting up a system that ensure the Company's activities are carried out in a lawful and ethical manner, as well as, establishing the Business Ethics Policy and communicating it to all committees, executives, and employees for acknowledgement and compliance. In addition, the Company has reviewed its Business Ethics Policy on an annual basis and disclose on the Company's website. (<https://www.gunkul.com/storage/download/cg/2023/20230321-gunkul-business-ethics-policy-en.pdf>)



6.3 Significant Changes and Development of Policies, Practices, and Corporate Governance System in the Past Year

6.3.1 Significant Changes and Development related to the review of Policies, Practices, and Corporate Governance System or the Board of Directors Charter in the Past Year

The Board of Directors approved the Good Corporate Governance Policy in writing and approved the latest review at the Board of Directors' meeting No. 11/2022 on November 10, 2022 and No. 2/2023 on February 27, 2023. The objectives of establishing and reviewing the Good Corporate Governance Policy are to use it as a guideline for monitoring, controlling, and supervising those authorized to perform administrative duties. There is a procedural management to organize the organizational resources to be utilized effectively and efficiently according to the organizational goals, as well as to achieve maximum benefits and fairly return back to all stakeholders. The Board of Directors has determined this policy and practices to be reviewed annually and the Company has adhered to good corporate governance principles consistently and strictly. Since 2020, the Company has reviewed and improved the policy and procedures to ensure the consistency with ASEAN CG Scorecard guidelines for implementation and adoption as appropriate, and bring into action continuously.

In 2022, the Company has prepared a summary of matters that have not yet been fully implemented according to good corporate governance principles and proposed to the Good Corporate Governance and Sustainable Development Committee and the Board of Directors to acknowledge the rationale and approaches as follows :

Matters that have not yet been fully implemented	Rationale/ Approaches
<ul style="list-style-type: none"> The Board of Directors should consist of more than 66% of non-executive directors 	<ul style="list-style-type: none"> At present, the Board of Directors consists of 50% of non-executive directors and is in the process of recruiting additional directors.
<ul style="list-style-type: none"> The Board of Directors should consist of more than 50% of independent directors. 	<ul style="list-style-type: none"> At present, the Board of Directors consists of 40% of independent directors and is in the process of recruiting additional directors.

6.3.2 Other Practices in Accordance with the Good Corporate Governance Principles

The Company is committed to concretely implementing good corporate governance principles throughout organization. As a result, it has maintained a five-star rating for Corporate Governance Report "CGR" for the sixth consecutive year. In 2022, the Company received an excellent rating with an average score of 97 percent, compared to an excellent rating with an average scores of 97 percent, 95 percent, 95 percent, 94 percent, 91 percent, and 91 percent in 2021, 2020, 2019, 2018, and 2017, respectively. Also, the Company has been assessed in 2021 ASEAN Corporate Governance Scorecard ("ACGS") and received "ASEAN Asset Class Publicly Listed Companies" or an award given to companies that score 97.50 or more totaling 135 companies, of which 42 companies were Thai listed companies, which is the highest number of listed companies in ASEAN.

In 2022, the Company received an excellent score of 100 for the quality assessment of the 2022 Annual General Meeting of Shareholders, compared to the scores received in 2021, 2020, 2019, and 2018 at a score of 100, 100, 96, and 97.5, respectively.

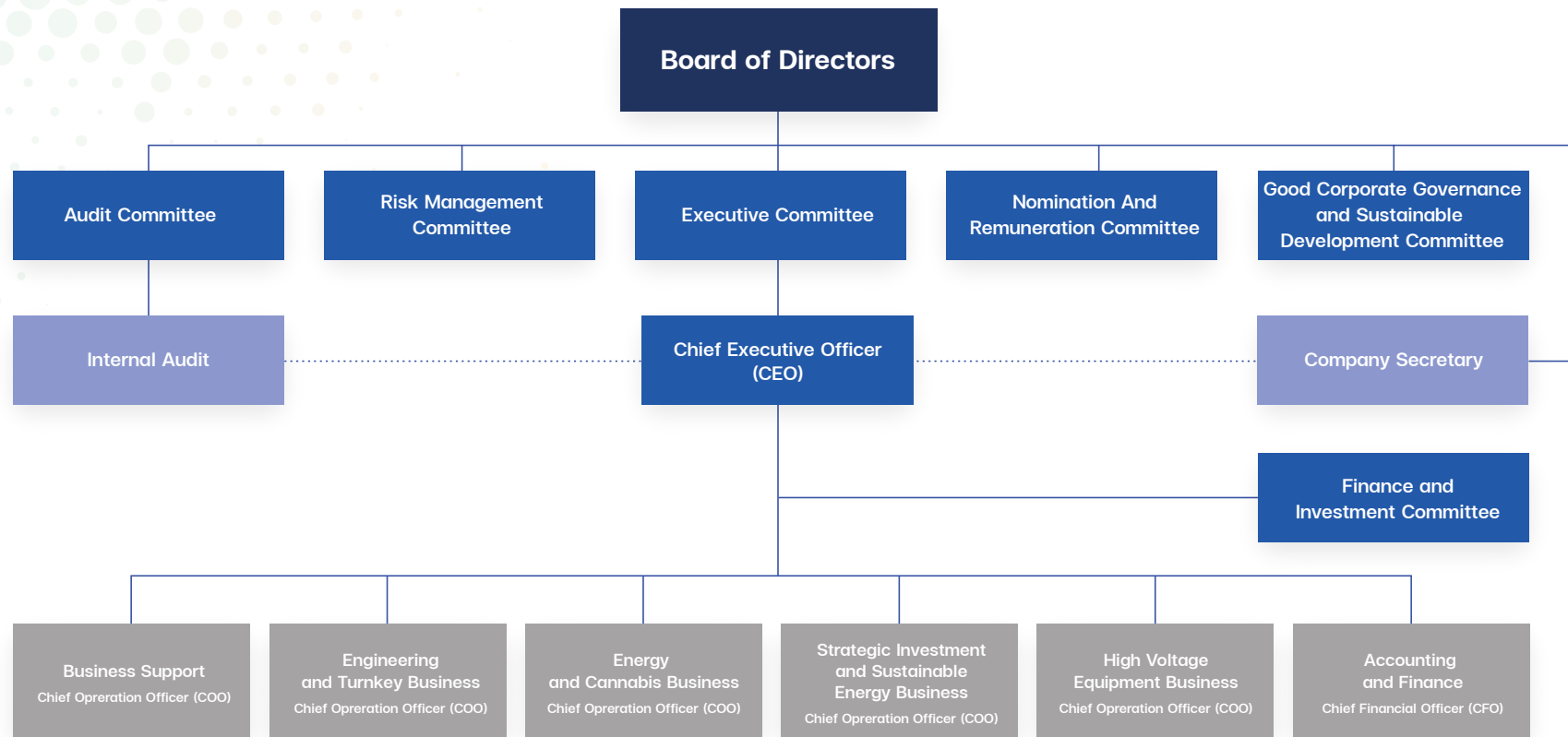
In addition, to support the voluntary practice by the private sector to cooperate in the prevention and fight against corruption by establishing the standards of operating business that are accurate and transparent, as well as creating higher standards of business ethics and building confidence among the Company's stakeholders and Thai society as a whole, the Company submitted a declaration of intention to the Private Sector Collective Action Coalition Against Corruption (CAC) in 2017, which the Company was assessed and certified as a member of CAC. The Company has determined and implemented practice guidelines, based on such principles, throughout the organization, which reflects the overall development in good corporate governance continuously, and that the Company is committed to further a sustainable development.

Moreover, in 2022 the Company has developed its plans to comply with Corporate Governance Code "CG Code" for listed companies according to recommendations of the Office of the Securities and Exchange Commission, and has proposed to the Good Corporate Governance and Sustainable Development Committee and the Board of Directors to determine such plans as concrete practices and to develop continuously. Throughout 2022, the Good Corporate Governance and Sustainable Development Committee and the Board of Directors have continuously acknowledged, reviewed, and considered the aforementioned principles and plans.

7. Corporate Governance Structure and Material Facts related to the Board of Directors, Sub-Committees, Executives, Employees, and Others

7.1 Corporate Governance Structure

As of December 31, 2022



Remark : 1) The organization chart was effective from January 24, 2022
 2) Internal audit is comprise of Internal Audit Department and Compliance Department



Report of Securities Holding of the Company's Director and Senior Executives for the year 2022

No.	Directors/ Senior Executives	Relationship	Type of Securities	Number of shares held as of January 1, 2022 (Shares)	Number of shares held as of December 31, 2022 (XO : January 9, 2023) (Shares)	Number of shares increased/ (decreased) (Shares)	Proportion of shares holding in the Company (%)
1.	Dr. Gunkul Dhumrongpiyawut	Director	Common Share	240,712,170	240,712,170	-	2.710
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				240,712,170	240,712,170	-	2.710
2.	Dr. Chongrak Rarueysong	Director (Independent Director)	Common Share	-	-	-	-
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				-	-	-	-
3.	Assoc.Prof. Dr. Panarat Panmanee	Director (Independent Director)	Common Share	-	-	-	-
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				-	-	-	-
4.	Gen. Tarnchaiyan Srisuwan	Director (Independent Director)	Common Share	-	-	-	-
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				-	-	-	-
5.	Mr. Tarakorn Angpubate	Director (Independent Director)	Common Share	900,039	1,400,039	500,000	0.016
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				900,039	1,400,039	500,000	0.016
6.	Mr. Kris Chantanotoke (Resigned on July 29, 2022)	Director (Independent Director)	Common Share	-	-	-	-
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				-	-	-	-



No.	Directors/ Senior Executives	Relationship	Type of Securities	Number of shares held as of January 1, 2022 (Shares)	Number of shares held as of December 31, 2022 (XO : January 9, 2023) (Shares)	Number of shares increased/ (decreased) (Shares)	Proportion of shares holding in the Company (%)
7.	Ms. Sopacha Dhumrongpiyawut	Director/ Senior Executive	Common Share	-	-	-	-
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				-	-	-	-
8.	Dr. Somboon Aueatchasai	Director/ Senior Executive	Common Share	33,600,000	33,600,000	-	0.378
		Spouse	Common Share	3,000,000	-	(3,000,000)	-
		Underage children	Common Share	-	-	-	-
				36,600,000	33,600,000	(3,000,000)	0.378
9.	Ms. Naruechon Dhumrongpiyawut	Director/ Senior Executive	Common Share	431,193	431,193	-	0.005
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				431,193	431,193	-	0.005
10.	Mrs. Areewan Chaloemdan	Director/ Senior Executive	Common Share	-	-	-	-
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				-	-	-	-
11.	Mr. Chaloepon Sricharoen	Director/ Senior Executive	Common Share	-	-	-	-
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				-	-	-	-
12.	Dr. Phongsakorn Damnoen	Senior Executive	Common Share	38,174,073	38,174,073	-	0.430
		Spouse	Common Share	336,000	336,000	-	0.004
		Underage children	Common Share	-	-	-	-
				38,510,073	38,510,073	-	0.434
13.	Mr. Chaisiri Wattanacharnnarong	Senior Executive	Common Share	-	-	-	-
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				-	-	-	-



No.	Directors/ Senior Executives	Relationship	Type of Securities	Number of shares held as of January 1, 2022 (Shares)	Number of shares held as of December 31, 2022 (XO : January 9, 2023) (Shares)	Number of shares increased/ (decreased) (Shares)	Proportion of shares holding in the Company (%)
14.	Mr. Thitipong Techaratanayuengyong	Senior Executive/ Secretary to the Risk Management Committee	Common Share	-	-	-	-
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				-	-	-	-
15.	Mr. Theerapab Punyasakhon	Senior Executive	Common Share	-	-	-	-
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				-	-	-	-
16.	Ms. Suttirat Tangnorakul	Senior Executive	Common Share	-	-	-	-
		Spouse	Common Share	-	-	-	-
		Underage children	Common Share	-	-	-	-
				-	-	-	-

Remark : As of December 31, 2022 and January 9, 2023, the Company had registered capital of 2,220,632,743.50 baht and total shares sold of 8,882,530,974 shares.



7.2 Board of Directors Information

7.2.1 Composition of the Board of Directors

Composition of the Board of Directors, according to the Board of Directors Charter, is determined as follows :

- Not less than 5 persons but not more than 12 persons
- One-third of the Company's directors must be independent directors
- Not less than half of the Company's directors must reside in the Kingdom of Thailand
- The Board of Directors should have a proportion of directors with a diverse range of knowledge and expertise suitable for the business and there must be a balance of power within the Board of Directors

The Board of Directors, according to the Company's affidavit dated February 8, 2022, consist of 10 members as follows :

- 4 independent directors, representing 40.00% of total directors
- 5 non-executive directors*, representing 50.00% of total directors
- 5 executive directors, representing 50.00% of total directors
- 4 female directors, representing 40.00% of total directors

* 4 Independent Directors in total



7.2.2 Information of the Board of Directors and the Controlling Persons

As of December 31, 2022, the Board of Directors consists of 10 members as follows :

Name-Surname	Position
1. Dr. Gunkul Dhumrongpiyawut ^{1) 2)}	Chairman of the Board of Directors (Non-Executive Director)
2. Dr. Chongrak Rarueysong ³⁾	Director Independent Director Chairman of the Audit Committee Member of the Good Corporate Governance and Sustainable Development Committee
3. Assoc.Prof. Dr. Panarat Panmanee ^{3) 4) 5) 6)}	Director Independent Director Member of the Audit Committee
4. Gen. Tarnchaiyan Srisuwan ¹⁾	Director Independent Director
5. Mr. Tarakorn Angpubate ³⁾	Director Independent Director Member of the Audit Committee Chairman of the Risk Management Committee
6. Ms. Sopacha Dhumrongpiyawut ⁶⁾	Director (Authorized Director) Chairman of the Executive Committee Member of the Risk Management Committee
7. Dr. Somboon Aueatchasai	Director (Authorized Director) Member of the Executive Committee Secretary to the Board of Directors Chief Executive Officer (CEO)
8. Ms. Naruechon Dhumrongpiyawut ^{1) 6)}	Director (Authorized Director) Member of the Executive Committee Chief Operating Officer, Strategic Investment and Sustainable Energy Business



Name-Surname	Position
9. Mrs. Areewan Chaloezman ⁶⁾	Director (Authorized Director) Member of the Executive Committee Chief Operating Officer, High Voltage Equipment Business
10. Mr. Chaloezman Sricharoen	Director (Authorized Director) Member of the Executive Committee Vice President, Sales and Marketing

Ms. Chantra Jongjamareeseethong is the Company Secretary

Remark : ¹⁾ The 2022 Annual General Meeting of Shareholders on April 27, 2022 resolved to approve re-election of the Company's directors who have completed their terms of office to be the Company's directors for another term

²⁾ Non-Executive Directors with working experience related to business of the Company and the Group

³⁾ Independent Director with knowledge and experience in reviewing financial statements

⁴⁾ Independent Director with a degree in accounting and auditing

⁵⁾ Female Independent Director

⁶⁾ In 2022, there are 4 female directors

Authorized Directors

The Company determines the authorized directors to be as follows : any of Dr. Gunkul Dhumrongpiyawut or Ms. Sopacha Dhumrongpiyawut or Ms. Naruechon Dhumrongpiyawut, jointly sign with Mr. Somboon Aueatchasai or Mr. Chaloezman Sricharoen or Mrs. Areewan Chaloezman, two persons altogether, or Mr. Somboon Aueatchasai, Mrs. Areewan Chaloezman and Mr. Chaloezman Sricharoen jointly sign, for and on behalf of the Company.

7.2.3 Duties and Responsibilities of the Board of Directors

The Board of Directors have duties and responsibilities as follows :

1. To perform the duties in accordance with the laws, objectives, regulations of the Company and the Board of Directors' resolution as well as the shareholders' meeting's resolution with responsibility, care and integrity as a prudent person who will undertake his business under the same conditions for the maximum benefits of the Company.

2. To determine vision, mission, strategy, business direction, policy, target, direction of the operating plan and budget of the Company, to supervise, oversee, monitor and examine compliance with the policy, plan and budget provided operational structure and Approval Authority Guide manual and to assess the performance of the management consistently.
3. To determine the charter and major policies of the Company as follows :
 - 1) Major business policies (business ethics and good corporate governance)
 - 2) Charter of the Board of Directors and charter of the Sub-Committees
 - 3) Policy on authority, duty and responsibility of the Chairman of the Board of Directors and the Chief Executive Officer
 - 4) Policy on transaction measures with non-related company/ person, and related company/ person, and table of authority
 - 5) Financial policy
 - 6) Financing policy
 - 7) Fund management policy
 - 8) Risk management policy
 - 9) Policy on internal audit and internal control of the Company
 - 10) Anti-corruption policy and related policy
 - 11) Other policy related to corporate governance of the Company
4. Decision on the following investments
 - 1) Consideration/ Approval on the budget
 - 2) Consideration/ Approval on the investment project of the Company
 - 3) Supervision of the project in accordance with the plan
5. To supervise, oversee and monitor the Company's operation
 - 1) To meet the target or better than the target in accordance with the Company's strategy
 - 2) To determine the corrective measure if there is any problem or difficulty in order to achieve the target or better than the target
 - 3) To determine measure and practice on good corporate governance to manage sustainability, social responsibility and anti-corruption, including other related measures and practices
 - 4) To comply with anti-corruption measure and other related measure and to take responsibility on implementation of anti-corruption measure and other related measures
6. To prepare general information report and financial report of the Company to report and disclose



to shareholders and stakeholders or general investors correctly, completely, timely and fairly and in accordance with the laws provided.

7. To review whether the financial reporting system, internal control system and risk management system of the Company is adequate and suitable to ensure confidence in correctness, completeness and reliability of information and to reduce risk of fraud and to prevent any illegal act.
8. To acknowledge the key audit report of the Audit Committee and sub-committees, including the internal control division, the auditor, and consultants of the Company and to determine the improvement and corrective measure if the defect found is significant and to manage and handle the related transaction in accordance with the criteria provided under the laws.
9. To appoint the qualified person with no prohibited characteristics according to related laws to become the director of the Company in the event the Board of Directors position becomes vacant for reasons other than retirement by rotation.
10. To appoint the sub-committees and its chairman such as the Audit Committee, the Risk Management Committee, the Nomination and Remuneration committee, the Good Corporate Governance and Sustainable Development Committee, the Executive Committee or other sub-committees and to appoint the Secretary to the Board of Directors and the Company Secretary to support the duty performed by the Board of Directors.
11. To determine remuneration and to appoint the senior executive of the Company and to establish succession plan to ensure the continuity of the Company's top executive.
12. To appoint any director or directors or any person to undertake any act for the Board of Directors while such assignment shall not assign the assignee to approve the transaction that such person or the person with possible conflict of interest or possible conflict of business interest in any nature with the Company or the subsidiary company.

In addition, for the transaction that the director or the person with possible conflict of interest or conflict of business interest in any nature with the Company or the subsidiary company, the director who has the conflict of interest in such matter is not allowed to vote on such matter unless such following matters have been approved by the meeting of shareholders.

- 1) The matter that the laws and the regulations of the Company have required the resolution of the shareholders meeting
- 2) The transaction of the director who has conflict of interest, which is required by the laws or the requirements of the Stock Exchange of Thailand to be approved by the meeting of shareholders

13. To arrange the annual performance assessment as follows.

- 1) Performance of the Board of Directors
- 2) Performance of each individual director
- 3) Performance of every sub-committee
- 4) Performance of the Chief Executive Officer of the organization
- 5) Performance of the Company Secretary

In addition, such assessment will be used to undertake the development and improvement and to be used as data for determination of the policy for a continuous development of the organization.

14. To review the policy related to good corporate governance and charter of the Board of Directors, vision, mission or strategy of the Company annually.
15. To prepare the activity report of the Board of Directors for disclosure in the Annual Registration Statement / Annual Report (Form 56-1 One Report) of the Company while such report will be signed by the Chairman of the Board of Directors.
 - 1) Overall opinion or comment that the Board of Directors received from the duties performed in accordance with the charter.
 - 2) Other transactions that the Board of Directors has agreed that the shareholders and the general investors should know within the scope of authority, duties and responsibilities assigned by the shareholders.
 - 3) Number of meetings of the Board of Directors and attendance to the meetings of each director, including remuneration received by each director.
16. To perform the duties, the Board of Directors may seek independent opinion from the other independent professional consultant when it is necessary at the expenses of the Company.

In addition, the Company has prescribed roles, authorities, duties and responsibilities of the Chairman of the Board of Directors as follows :

1. The Chairman of the Board of Directors and the Chief Executive Officer are required to be different person.
2. To determine the agenda of the Board of Directors' meeting jointly with the Chief Executive Officer, and ensure that important matters are included in the agenda of the Board of Directors' meeting.

In case the Chairman of the Board of Directors is not an independent director, the Company shall



proceed as follows :

- Arrange the Board of Directors composition to have the proportion of independent directors more than 50% or
 - Appoint Lead Independent Director to help consider determining meeting agenda
3. To call the Board of Directors' meeting and the shareholders' meeting, and be the Chairman of the Board of Directors' meeting and/or the shareholders' meeting so as to conduct the said meetings according to the agenda, the Company's Article of Association and related laws, including controlling effectiveness of the meeting, providing the executives or related person enough time to report supporting information, and providing directors and/or shareholders an opportunity to question and express their opinion equally and independently, as well as, controlling discussion topic and conclude meeting resolution.
 4. To cast a decisive vote if the votes are on par in the Board of Directors' meeting.
 5. To control effectiveness of the meeting according to the Company's regulations, support and provide the directors an opportunity to express their opinion independently.
 6. To encourage and support the Board of Directors to perform its duties at full capacity according to the scope of authority, duty and responsibility, as well as, the principles of good corporate governance.
 7. To take responsibility as the Board of Directors' leader in supervising, monitoring and looking after the management of the Board of Directors and other sub-committee to achieve targeted objectives and plans, in accordance with laws, and the Company's Good Corporate Governance policy.
 8. To supervise the use of policy and strategic guidelines of the management, as well as, providing advices and supporting the business undertaken by the management.
 9. Be a leader and a role model in compliance with the principles of good corporate governance and the Company's business ethics, as well as, promoting, supervising, and monitoring the management on sustainability principle, social responsibility principle, and practice in accordance with the Anti-corruption measures and guidelines.

7.3 Sub-Committees Information

The Board of Directors has appointed 5 sub-committees comprise the Audit Committee, the Risk Management Committee, the Nomination and Remuneration Committee, the Good Corporate Governance and Sustainable Development Committee, and the Executive Committee to assist/ support the Board of Directors' duties. Details are as follows :

1) Audit Committee

The Audit Committee is a sub-committee appointed to assist/ support the Board of Directors in operation and to ensure that the business has a good governance system. The Audit Committee is appointed with objectives to promote operational efficiency and add value to the organization. In order to conduct duties effectively, the Audit Committee is required to maintain relationships with the Board of Directors, executives, external auditors and internal auditors of the Company. Each Audit Committee member is required to develop and maintain proficiency and knowledge, including understanding of duties and responsibilities, as well as the Company's business and risks.

The Board of Directors' meeting No. 3/ 2022 on April 27, 2022 appointed the Audit Committee, which as of December 31, 2022, consisting of 3 directors as follows :

Name		Position
1. Dr. Chongrak	Rarueysong ¹⁾	Chairman of the Audit Committee (Independent director)
2. Assoc.Prof. Dr. Panarat	Panmanee ^{1) 2) 3)}	Member of the Audit Committee (Independent director)
3. Mr. Tarakorn	Angpubate ¹⁾	Member of the Audit Committee (Independent director)

Mr. Tanetsiri Farkmitr is the Secretary

Remark : ¹⁾ Independent Director who has knowledge and expertise in reviewing the Company's financial statements

²⁾ Independent Director who has a degree in accounting

³⁾ Female Independent Director

Duties and responsibilities of the Audit Committee

1. To review and ensure that the Company's financial report is accurate and reliable, including information disclosure is sufficient, reliable and timely through coordination with the external auditor and the Company's executives who are responsible for preparing quarterly and annually financial report. The Audit Committee is responsible for supervising, the management is responsible for the establishment of the Company's financial statement, and the external auditor is responsible for auditing the Company's financial statement. In addition, the Audit Committee and the Board



of Directors jointly acknowledge that the management, internal auditor and external auditor have resources and time, as well as knowledge in accounting, auditing, internal control system and management of financial statement more than that Audit Committee. Therefore, the overseeing by the Audit Committee are not guaranteed the Company's financial information and the financial statement that disclosed to shareholders and the others.

2. To review the internal control and the internal audit system of the Company to be suitable, sufficient, and efficient together with the external and internal auditors, and to examine independence of the internal audit unit or other responsible agency related to internal audit and to provide consent on appointment, rotation, dismissal head of the internal audit unit or other responsible agency related to internal audit. Also, to provide opinions and observation on budget, internal audit manpower to propose to the executive for audit plan and scope of audit for internal auditor and the Company's auditor include internal audit advisor (if any) to have a supportive and to avoid the duplication.
3. To review compliance with law on securities and stock exchange, requirements of the Stock Exchange of Thailand or laws relevant to the Company's business.
4. To examine, select, propose independent person to perform the duty as the Company's auditor, to examine the remuneration of the auditor with consideration on reliability, sufficiency of resources and quantity of the audit work of such auditor and experience of the person assigned to examine the accounts of the Company, including yearly performance as well as the dismiss of the Company's auditor. In addition, the Audit Committee will propose recommendations to the Board of Directors for consideration and approval. To coordinate with the Company's auditor on the objective, scope, guideline, plan, obstacle occurred during the auditing and issue that auditor considered as a key issue, to arrange the meeting with the external independent auditor without the management attending the meeting at least once a year.
5. To examine the related transactions or the transactions with possible conflict of interest to be in accordance with laws and requirements of the Stock Exchange of Thailand, and to ensure that such transactions are justified and beneficial to the Company.
6. To review compliance with anti-corruption policy, regulations, relevant law, and comply with international standard with concise, appropriate, up-to-date and efficiency as the Board of Directors has determined. As well as, to examine the outcome of review on fraud and provide the Company a channel to receive complaint on fraudulent act, including promoting and encouraging risk awareness and assessment, preparation of the preventive system and examination system.

7. To assess performance of the Audit Committee, provide recommendations on development and improvement to the Board of Directors for acknowledgment and use as data to determine the policy on a continuous development of the organization.
8. To review and amend the charter of the Audit Committee and the internal audit division annually.
9. To prepare an activity report of the Audit Committee for disclosure in the Annual Registration Statement / Annual Report (Form 56-1 One Report) of the Company. Such report will be signed by the Chairman of the Audit Committee, which include :
 - 1) Comments on accuracy, completeness and reliability related to preparation process and disclosure in the financial report of the Company
 - 2) Comments on sufficiency of the internal control system of the Company
 - 3) Comments on compliance with laws on securities and stock exchange, requirements of the Stock Exchange of Thailand or laws related to the business of the Company
 - 4) Comments on suitability of the auditor
 - 5) Comments on transactions with possible conflict of interest
 - 6) Overall comments or remarks that the Audit Committee received from the duty performed in accordance with the charter
 - 7) Number of meetings of the Audit Committee and attendance to the meeting by each Audit Committee member, including remuneration received by each Audit Committee member
 - 8) Other reports that the Audit Committee has viewed that the shareholders and the investors should know within the scope of authority and responsibility assigned by the Board of Directors
10. To examine the matter informed by the Company's auditor for the case that is doubtful that the director, manager or the person responsible for the operation of the Company has involved in the wrongdoing as indicated in the Securities and Exchange Act (No.5) B.E. 2559, prepare the preliminary finding report and submit to the Securities and Exchange Commission and the auditor within 30 days since the date that it is informed by the auditor.
11. To review the continuous development of the corporate governance of the Company, provide necessary suggestion for the development also, to promote and propose the corporate governance topic to the Board of Directors meeting and the Annual General Meeting of Shareholders as a routine agenda. In accordance with Section 89/ 14 of the Securities and Exchange Act, the Audit Committee is responsible for monitoring that the Company Secretary has submit a copy of report of the conflict of interest within 7 working days since the date that the Company received the report.



12. To perform the duty, the Audit Committee may ask for independent opinion from other professional consultant as deemed necessary at the expense of the Company.
13. To perform any other duty assigned by the Board of Directors with approval from the Audit Committee such as review the policy on financial management and risk management, review the management's compliance with business ethics, jointly review with the Company's executives on key matters that must be presented to public as required by laws such as report and analysis of the executives.

2) Risk Management Committee

The Risk Management Committee's duties are to support the Board of Directors in determining policy and guidelines regarding risk management, risk management plan preparation, risk assessment, to suggest risk preventive and corrective measures, as well as, to monitor and supervise the operation to be in line with measures provided. This is to ensure that a systematic risk management process is covered throughout the organization, which will help reduce impact on business operation and enhance compliance with rules, regulations, and laws stipulated by supervisory agencies.

The Board of Directors' meeting No. 3/ 2022 on April 27, 2022 appointed the Risk Management Committee, which as of December 31, 2022, consisting of 4 directors as follows :

Name		Position
1. Mr. Tarakorn	Angpubate	Chairman of the Risk Management Committee (Independent Director)
2. Ms. Sopacha	Dhumrongpiyawut	Member of the Risk Management Committee
3. Mr. Somchai	Trairatanapirom	Member of the Risk Management Committee (Independent Director)
4. Mr. Thitipong	Techaratanayuenyong	Member of the Risk Management Committee and Secretary

Duties and Responsibilities of the Risk Management Committee

1. To determine policies, guidelines and framework on risk management of the Company as a guideline to undertake the business in accordance with the Securities and Exchange Law, requirements of the Stock Exchange of Thailand or the laws related to the business conducted by the Company, including anti-corruption measures and practice.

2. To issue the emerging risk management plan and analyze the impacts of emerging risks.
3. To supervise, monitor and support risk management to be successful at the corporate level as well as project level with consideration on each risk to support the assessment, analysis and decision to ensure that the risk management process has covered every step of the business undertaken.
4. To review the guidelines and framework on risk management in comparison with the international practice and to provide recommendations on correction and improvement as deemed suitable to the Board of Directors.
5. To assess performance of the Risk Management Committee, to provide recommendations on development and improvement to the Board of Directors for acknowledgment and information to determine the policy on a continuous development of the organization.
6. To review the charter of the Risk Management Committee annually.
7. To prepare an activity report of the Risk Management Committee for disclosure in the Annual Registration Statement / Annual Report (Form 56-1 One Report) of the Company and such report will be signed by the Chairman of the Risk Management Committee.
 - 1) Overall comments or remarks that the Risk Management Committee received from the duty performed in accordance with the charter.
 - 2) Other reports that the Risk Management Committee has viewed that the shareholders and the investors should know within the scope of authority and responsibility assigned by the Board of Directors.
 - 3) Number of meetings of the Risk Management Committee and attendance to the meeting by each member of the Risk Management Committee, including remuneration received by each member of the Risk Management Committee.
8. To perform the duty, the Risk Management Committee may ask for independent opinion from the other professional consultant as deemed necessary at the expense of the Company.
9. To perform any other task assigned by the Board of Directors.

3) Nomination and Remuneration Committee

The Nomination and Remuneration Committee's duties are to support the Board of Directors in determining policy, criteria, and procedures for selecting qualified person who is in line with the Company's business strategies to be the Company's director, as well as, suggesting criteria for determining remuneration that is appropriate and consistent with current situation.



The Board of Directors' meeting No. 3/ 2022 on April 27, 2022 appointed the Nomination and Remuneration Committee, which as of December 31, 2022, consisting of 4 directors as follows :

Name		Position
1. Pol. Maj. Gen. Visit Sukarasep		Chairman of the Nomination and Remuneration Committee (Independent Director)
2. Mr. Decha Chooligorn		Member of the Nomination and Remuneration Committee (Independent Director)
3. Mr. Hathai Uthai		Member of the Nomination and Remuneration Committee (Independent Director)
4. Mrs. Somluk Kanuenghet		Member of the Nomination and Remuneration Committee and Secretary

Duties and Responsibilities of the Nomination and Remuneration Committee

1. To determine policies, criteria and process on recruitment, selection and nomination of the person with suitable qualification in accordance with related laws and regulations to take the post as the director of the Company, the director in various sub-committee with clear and transparent criteria in congruent with the business strategy of the Company for submission to the Board of Directors meeting and/ or the shareholders meeting for approval.
2. To determine policies, criteria and guidelines on remuneration, methods of payment of remuneration and benefits to the Board of Directors and the sub-committee suitable to the duties and responsibilities for the Company for submission to the Board of Directors meeting and/ or the shareholders meeting respectively for approval.
3. To review the structure, criteria related to recruitment and remuneration to ensure suitability with the duties and responsibilities and performance of the Company.
4. To consider and propose the succession plan of the top executives of the organization from the managing director or higher to the Board of Directors for approval.
5. To assess performance of the Nomination and Remuneration Committee, to provide recommendations on development and improvement to the Board of Directors for acknowledgment and information to determine the policy on a continuous development of the organization.
6. To review the charter of the Nomination and Remuneration Committee annually.

7. To prepare an activity report of the Nomination and Remuneration Committee for disclosure in the Annual Registration Statement / Annual Report (Form 56-1 One Report) of the Company and such report will be signed by the chairman of the Nomination and Remuneration Committee.

- 1) Overall comments or remarks that the Nomination and Remuneration Committee received from the duty performed in accordance with the charter.
- 2) Other reports that the Nomination and Remuneration Committee has viewed that the shareholders and the investors should know within the scope of authority and responsibility assigned by the Board of Directors.
- 3) Number of meetings of the Nomination and Remuneration Committee and attendance to the meeting by each Nomination and Remuneration Committee, including remuneration received by each member of the Nomination and Remuneration Committee.

8. To perform the duty, the Nomination and Remuneration Committee may ask for independent opinion from the other professional consultant as deemed necessary at the expense of the Company.

9. To perform any other task assigned by the Board of Directors.

4) Good Corporate Governance and Sustainable Development Committee

The Good Corporate Governance and Sustainable Development Committee's duties are to support the Board of Directors in determining the Company's policies and guidelines related to good corporate governance and sustainable development to be in accordance with principles of good corporate governance and sustainable development that listed company shall follow, for the organization to achieve concrete operation in overall picture according to principles of good corporate governance and sustainable development, which will enhance the Company to grow sustainably through business management with integrity, transparency, and verifiable manner. This will help strengthen confidence of shareholders, investors, stakeholders, and all related parties.



The Board of Directors' meeting No. 3/ 2022 on April 27, 2022 appointed the Good Corporate Governance and Sustainable Development Committee, which as of December 31, 2022, consisting of 3 directors as follows :

Name		Position
1. Mr. Somchai	Trairatanapirom	Chairman of the Good Corporate Governance and Sustainable Development Committee (Independent Director)
2. Dr. Chongrak	Rarueysong	Member of the Good Corporate Governance and Sustainable Development Committee (Independent Director)
3. Mr. Pongtep	Thithapand	Member of the Good Corporate Governance and Sustainable Development Committee (Independent Director)

Remark : Ms. Chantra Jongjamareeseethong is the Secretary

Duties and Responsibilities of the Good Corporate Governance and Sustainable Development Committee

Corporate Governance

1. To determine policies, guidelines on good corporate and sustainable development, business ethics and anti-corruption measures and guideline and also, to propose the establishment of the Compliance Unit to the Board of Directors and the management of the Company.
2. To supervise and monitor to ensure that directors, executives, employees and stakeholders have complied with the policies and guidelines provided and of regulatory authorities, such as the Securities and Exchange Commission, the Stock Exchange of Thailand and etc. , including laws or requirements related to good corporate governance principles with continued appropriate development.
3. To review the guidelines in accordance with good corporate governance principles of the Company in comparison with the international standard guidelines and to provide recommendations on appropriate improvement to the Board of Directors.
4. To encourage and promote the Company to distribute the good corporate governance and business ethics to the directors, executive and employees at all level to acknowledge, understand and follow accordingly.
5. To promote and support the Company to participate in the assessment or ranking contest on good corporate governance to develop and upgrade the good corporate governance standard of the Company continuously.

Sustainable Development/ Drive for Sustainable Business

1. To determine policies and guideline on sustainable development cover on ESG (Environment, Social and Governance) to be in line with the standard guideline targeted for both national/ international and propose to the Board of Directors and management.
2. To determine and comment on sustainability management framework to comply with the international standard also, to review, monitor and examine guideline operation/ plan for the Company from time to time in order to be line with the changing situations and environmental factors as follows :
 - 1) Consider and provide opinions on key sustainability issues
 - 2) Determine timeline for operation, specify responsible person for each key sustainability issue
 - 3) To determine the responsibility on social, environment and stakeholders and to oversee the Company's communication channels to create the trustworthy with the shareholders and stakeholders appropriately.
3. To oversee, monitor, assess and disclose the important operational information on sustainable development of the Company, including the preparation of Sustainability Report to create value and maximize benefits for both the Company and stakeholders in a sustainable manner.

Others

1. To perform any other task on sustainable development assigned by the Board of Directors.
2. To review the charter of the Good Corporate Governance and Sustainable Development Committee annually.
3. To assess performance of the Good Corporate Governance and Sustainable Development Committee, to provide recommendations on development and improvement to the Board of Directors for acknowledgment and information to determine the policy on a continuous development of the organization.
4. To prepare an activity report of the Good Corporate Governance and Sustainable Development Committee for disclosure in the Annual Registration Statement / Annual Report (Form 56-1 One Report) of the Company and such report will be signed by the Chairman of the Good Corporate Governance and Sustainable Development Committee.
 - 1) Overall comments or remarks that the Good Corporate Governance and Sustainable Development Committee received from the duty performed in accordance with the charter.
 - 2) Other reports that the Good Corporate Governance and Sustainable Development Committee has viewed as matter that the shareholders, investors and stakeholders should know within the scope of authority and responsibility assigned by the Board of Directors.



- 3) Number of meetings of the Good Corporate Governance and Sustainable Development Committee and attendance to the meeting by each Good Corporate Governance and Sustainable Development Committee, including remuneration received by each Good Corporate Governance and Sustainable Development Committee member.
5. To perform the duty, the Good Corporate Governance and Sustainable Development Committee member may ask for independent opinion from the other professional consultant as deemed necessary at the expense of the Company or may appoint working team deemed necessary and appropriate.

5) Executive Committee

The Executive Committee's duties are to support the Board of Directors in managing and controlling the Company's business to ensure an overall concrete outcome that enhance the Company to grow sustainably through business management with integrity, transparency, and verifiable manner. This will help strengthen confidence of shareholders, investors, stakeholders, and all related parties.

The Board of Directors' meeting No. 3/ 2022 on April 27, 2022 appointed the Executive Committee, which as of December 31, 2022, consisting of 5 directors as follows :

	Name	Position
1. Ms. Sopacha	Dhumrongpiyawut	Chairman of the Executive Committee
2. Dr. Somboon	Aueatchasai	Member of the Executive Committee
3. Ms. Naruechon	Dhumrongpiyawut	Member of the Executive Committee
4. Mrs. Areewan	Chaloemdan	Member of the Executive Committee
5. Mr. Chaloepon	Sricharoen	Member of the Executive Committee

Remark : Ms. Chantira Jongjamareeseethong is the Secretary

Duties and Responsibilities of the Executive Committee

1. To perform duties within the scope of the law, objectives and regulations of the Company; as well as, the Board of Directors' and the shareholders' meetings resolutions with honesty, cautious, to having responsibility and ethical by taking into account the benefits of all shareholders equally.
2. To determine policies, guidelines, framework, targets, business plan, management structure, rules and regulations, authority, delegation of authority and budget, including supervising, examining, monitoring and reviewing the Company's operation to be in accordance with vision, mission, strategy and policy of the Board of Directors, and in compliance with the Securities and Exchange Law requirements of the Stock Exchange or laws relevant to the Company's business, the Company's regulations, including Anti-Corruption measures and guidelines.
3. To determine regulations, policies and guidelines on corporate social responsibility.
4. To scrutinize, deem appropriate and approve the business operation that is conducted within the normal course of business and management of the Company within the scope of authority provided.
5. To determine the employee's code of conduct that is not against related regulations and laws.
6. To approve the position structure, salary structure and other benefits of the employees, and deem appropriate the management structure from the division level to lower.
7. To scrutinize, deem appropriate and approve the annual budget plan, supervise and monitor the operation to be in accordance with approved policy, target and budget plan.
8. To ensure that the internal control system of the Company is suitable and proper.



9. To determine framework and policy regarding risk management to be in accordance with objectives, strategies, and acceptable risks of the Company, including monitoring and assessing the efficiency of risk management regularly.
10. To determine the process of encouraging, supporting, and monitoring to ensure that employees and other related persons act in accordance with Anti-Corruption measures, including reviewing the appropriateness of various process and measures to be in line with changes in business, regulations and laws.
11. To supervise the establishment of mechanisms and procedures for handling complaints from stakeholders in accordance with the Company's Anti-Corruption and Whistle Blowing Policy.
12. To scrutinize, deem appropriate or approve the investment and/ or participation in the bidding of new projects, as well as entering into projects as deemed suitable, including entering into a juristic act related to such matter until its completion within the scope of authority provided.
13. To scrutinize, deem appropriate or approve the Company to enter into joint investments with any individuals, juristic persons and/ or group of persons in any form to undertake the business in accordance with the Company's objectives, including entering into the juristic act related to such matter until its completion within the scope of authority provided.
14. To scrutinize, deem appropriate or approve the appointment or employment of the advisor, including the external expert to provide opinions and undertake any act related to the business conducted by the Company.
15. The Executive Committee may delegate and appoint a special working group, group of persons, executives or any individual to undertake any work within scope of duty and responsibility as deemed appropriate.
16. To delegate authority to special working group, group of persons, executive or any individual to undertake any act must not include an authority to approve the related transaction or transaction with possible conflict of interest or the transaction with conflict of interest as indicated in the Company's regulations, policy, regulations and Notifications of the Capital Market Supervisory Board. Such transactions are required to be proposed to the Board of Directors' meeting and/ or the shareholders' meeting to consider and approve in accordance with the Company's regulations or relevant laws, unless it is an approval on the transaction that is conducted within the normal course of business of the Company in accordance with the policy and criteria approved by the Board of Directors.
17. To assess performance of the Executive Committee, including providing recommendations on development and improvement to the Board of Directors for acknowledgment and use as guideline to determine the policy on a continuous development of the organization.

18. To review the Executive Committee Charter annually.
19. To prepare an activity report of the Executive Committee for disclosure in the Annual Registration Statement / Annual Report (Form 56-1 One Report) of the Company, which shall be signed by the Chairman of the Executive Committee.
 - 1) Overall comments or remarks that the Executive Committee received from performing duties in accordance with the charter.
 - 2) Other reports that the Executive Committee has viewed that shareholders and investors should know within the scope of authority and responsibility assigned by the Board of Directors.
 - 3) Number of meetings and meeting attendance of each Executive Committee member, including remuneration received by each Executive Committee member.
20. To perform duty, the Executive Committee may ask for independent opinion from other professional consultant as deemed necessary, by using the expense of the Company.
21. To perform any other task assigned by the Board of Directors.

7.4 Information of Executives

7.4.1 List and Position of Executives

As of December 31, 2022, the Company has 9 executives (according to the structure shown in section 7.1) as follows :

Name		Position
Ms. Sopacha	Dhumrongpiyawut ²⁾	Chairman of the Executive Committee Director/ Member of the Risk Management Committee
Dr. Somboon	Aueatchasai ^{1) 2)}	Chief Executive Officer (CEO) Director/ Secretary to the Board of Directors/ Member of the Executive Committee
Dr. Phongsakorn	Damnoen ¹⁾	Chief Operating Officer - Energy and Cannabis Business
Ms. Naruechon	Dhumrongpiyawut ^{1) 2)}	Chief Operating Officer - Strategic Investment and Sustainable Energy Business Director/ Member of the Executive Committee
Mrs. Areewan	Chaloemdan ^{1) 2)}	Chief Operating Officer - High Voltage Equipment Business Director/ Member of the Executive Committee



Name		Position
Mr. Chaisiri	Wattanacharnnarong ¹⁾	Chief Operating Officer - Engineering and Turnkey Business
Mr. Thitipong	Techaratanayuenyong ¹⁾	Chief Financial Officer (CFO) Member of the Risk Management Committee/ Secretary to the Risk Management Committee Head of Investor Relations
Mr. Theerapab	Punyasakhon ¹⁾	Chief Operating Officer - Business Support
Ms. Suttirat	Tangnorakul ¹⁾	Senior Vice President - Accounting/ Person supervising Accounting

Remark :

- ¹⁾ An executive who is an executive as defined in SEC Notification.
- ²⁾ An executive who is the Company's director.
- At the beginning of 2022, the Company has changed the name of executives' positions as stated above, from that had been notified to the Securities and Exchange Commission on March 14, 2021 and the Stock Exchange of Thailand on March 5, 2021.
- In 2021, the Company has made organizational restructuring and changed the executive structure as follows :
 - Ms. Sopacha Dhumrongpiyawut, former Chairman of the Executive Committee and Chief Executive Officer, as Chairman of the Executive Committee, effective from March 5, 2021 onwards.
 - Dr. Somboon Aueatchasai, former Managing Director and Acting Chief Financial Officer, as Chief Executive Officer (top executive), effective from March 5, 2021 onwards.
 - Mr. Thitipong Techaratanayuenyong, former Senior Vice President – Finance and Strategic Management, as Chief Financial Officer, effective from March 5, 2021 onwards.
 - Changed the title of executive position from “Deputy Managing Director” or “Assistant Managing Director” to “Chief Operating Officer”, effective from March 5, 2021 onwards.
- In 2022, the Company has changed the name of business line to be consistent with the Company's business as described in organization chart, in section 7.1.

The Board of Directors has assigned the Chief Executive Officer to be a leader in operation and administration of the Company within the scope of authority as follow :

- To manage the Company's business, supervise and control overall operation in accordance with objectives, rules, policies, regulations, requirements, orders, business strategies, targets and operating plans, financial targets, budgets and resolutions of the Board of Directors' meeting and/or the shareholders' meeting.

- To prepare the Company's business policy, including plans and budget, and propose to the Board of Directors for approval, and regularly report the progress in accordance with plans and budget as approved by the Board of Directors.
- To undertake or determine the management authority so as to ensure that the operation is undertaken in accordance with policies, budget, direction, approach, strategy and business goals to define the main tasks for the management approved by the Board of Directors efficiently and effectively, based on the principle of systematic internal control and consistent risk management.
- To determine the management method, to select, train, hire, and dismiss employees, and to determine the wage, salary, reward, bonus and welfare for the employee subject to the policy as determined by the Executive Committee and/or the Board of Directors.
- To direct, contact, command, undertake, and sign in the juristic act, agreement, order, notice or any letter used to contact with other agencies or persons, so as to ensure that the Company's operation is accomplished efficiently and effectively.
- To have authority to sub-delegate and/or assign other person to undertake the specific tasks through sub-delegation and/or such assignment is subject to the scope of authority according to power of attorney and/or regulations, requirements, or orders made by the Board of Directors and/or the Company.
- Be a leader and a role model in compliance with the Company's business ethics, as well as, promoting, supervising, and monitoring the management on sustainability and social responsibility principles, and practice in accordance with the Anti-corruption measures and guidelines.
- To have the authority, duty, and responsibility as assigned or according to the policy as assigned by the Board of Directors.

The assignment of authority, duty and responsibility to the Chief Executive Officer is not the assignment or sub-delegation that would allow the Chief Executive Officer or the assignee of the Chief Executive Officer to approve any transaction that he/ she or other person may have conflict of interest, or possible conflict of interest with the Company, or the subsidiary (according to the definitions prescribed in the notification of the Securities and Exchange Commission) The approval of such transaction is required to be proposed to the Board of Directors and/or the shareholders' meeting (as applicable) to consider and approve according to the Company's Article of Association or related laws. Unless it is an approval on transaction that is considered a normal business transaction of the Company that is in accordance with policies and criteria approved by the Board of Directors.



7.4.2 Remuneration and Welfare for Executive and Employees Policy

The Nomination and Remuneration Committee has formulated “Remuneration and Welfare for Executives and Employees Policy” and proposed to the Board of Directors for consideration, which the Board of Directors has approved it in order to determine the criteria and practices for remuneration and welfare for executives and employees at all levels to be align with the Company’s short and long-term goals, at comparable rates that are in accordance with market guidelines in similar industries. The objective is to motivate employees to work more efficiently. The Company’s remuneration and welfare consist of various types such as salary, special positions, annual bonus, accommodation expenses, fuel expenses, telephone fees, sales commission; welfare consists of provident fund, medical expenses, group accident insurance, children’s’ scholarships, financial aid at the event of disaster, funeral assistance, assistance in case of illness/maternity leave, uniform expenses, to New Year’s party

arrangement costs. In addition, other remuneration and welfare that may be added will be considered from the Company’s short and long-term operational results.

In addition, criteria for consideration of remuneration payment such as salary, special positions (position adjustment), and annual bonus will be considered based on the Company’s performance evaluation framework. Starting from establishing and reviewing vision, mission, and Corporate KPI by using the Balanced Scorecard (BSC) principles to cover all dimensions of assessment. Whereas competency assessment will also be conducted to guide the development of each individual, together with consideration of time attendance according to criteria established

7.4.3 Remuneration for Executives

In 2022, the Company has 9 executives and the total remuneration paid, which consist of, salary, bonus, and provident fund (other remuneration) was 111,510,858.20 baht, which include retroactive remuneration for the preceding year. Details are as follow :

Monetary Remuneration for Executives

Remuneration	Executives who serve as the Company’s Director				Executives who are not serve as the Company’s Director			
	2022		2021		2022		2021	
	No. (person)	Remuneration (baht)	No. (person)	Remuneration (baht)	No. (person)	Remuneration (baht)	No. (person)	Remuneration (baht)
Salary	4	38,265,000.00	5	38,151,840.00	5	24,772,920.00	9	32,965,764.00
Bonus	4	32,786,225.00	5	30,082,670.00	5	12,463,020.00	9	18,939,145.00
Provident fund	4	1,543,836.00	5	2,670,628.80	5	1,679,857.20	9	2,063,283.04
Total	4	72,595,061.00	5	70,905,138.80	5	38,915,797.20	9	53,968,192.04

Non-Monetary Remuneration for Executives

The Company’s non-monetary remuneration for executives consist of position car, gasoline, telephone, medical expenses, COVID-19 insurance, accidental insurance, travel and accommodation expenses.



7.5 Information of Employees

Total employees of the Company and its subsidiaries are 1,219 persons, classified by type and level of employment as follows :

Details	Number of Employees		
	2020	2021	2022
Total employees (persons)	964	959	1,219
Monthly	854	849	1,051
Daily	110	110	168
Number of employees by type of employment (persons)			
Full-time	791	835	1,033
Contracted	173	124	186
Number of employees by gender (persons)			
Male	603	610	739
Female	361	349	480
Number of employees by hiring (persons)			
Disabled	7	8	11
Elderly	6	8	11
Number of employees by level (persons)			
Management	38	41	59
Manager	65	71	87
Supervisor	114	117	143
Staff	476	509	646
Operator	271	221	284

Details	Number of Employees		
	2020	2021	2022
Number of successful recruitment (persons)	215	217	433
Management	4	4	7
Manager	19	25	31
Supervisor	29	17	14
Staff	158	165	252
Operator	5	4	128
Employee turnover rate (%)	1.39	1.63	1.54

¹⁾ Include 9 executives as listed in section 7.4.1





In addition, the Company and its subsidiaries have classified employees according to the core business as follows :

Employees level	Renewable Energy Business (persons)	Engineering and Turnkey Business (persons)	High-Voltage Equipment Business (persons)	Ecosystem Business Platform and Innovation Business (persons)	Hemp and Cannabis Business (persons)	Total (persons)
Executives	28	8	8	3	12	59
Manager	36	18	18	9	6	87
Supervisor	53	23	49	3	15	143
Staff	316	114	81	28	107	646
Operator	113	6	113	-	52	284
Total	546	169	269	43	192	1,219

Total employees remuneration and type of remuneration

In 2022, the Company and its subsidiaries paid monetary remuneration to employees (exclude executives in section 7.4.3) comprises salary, bonus, provident fund (other remuneration) totaling 431,042,592.04 baht, details are as follows :

Unit : Baht	2020	2021	2022
Salary	317,177,396.39	326,643,953.03	360,451,601.77
Bonus	41,515,350.97	58,905,240.77	56,980,462.91
Provident fund	11,633,785.30	13,228,012.97	13,610,527.36
Total	370,326,532.66	398,777,206.77	431,042,592.04

Non-Monetary Remuneration of Employees

The Company's non-monetary remuneration for employees comprises of health insurance, accident insurance, annual health check-ups, as well as various activities and parties.

Provident Fund

The Company encourages all employees to have financial planning, so that employees can have sufficient savings and financial security in the future, which is a form of welfare provided to employees in order to pay for retirement. The Company has established a registered provident fund with SCB Master Fund (the "Fund") where employees can choose investment plans and choose to accumulate from the rate of 3%, 5%, 7%, 10% and 15% of salary, and the Company contributes at the same rate of 3%, 5% and 7% which is the highest rate. As of December 31, 2022, there are a total of 553 employees participating in the fund, representing 59.14% of the total number of employees who are eligible according to the policy and criteria of the fund.

Proportion of the number of employees participating in the Company's provident fund

Company	Number of enrolled employees (Persons)	Ration of enrolled employees to all employees (Percent)
Gunkul Engineering PCL	553	59.14

Personnel Development

The Company has a policy to continuously develop personnel and their potential. The purposes are to support employees in growing within the organization and ensure happiness of employees at all level by encouraging them to create works and conduct self-development together with the organization continuously.



The Company has determined human resources development plan based on competency and performance assessment (KPIs) in order to use as data in analyzing the curriculum for personnel development and to enable personnel at all levels to be trained continuously. A policy regarding personnel's training are as follows :

Management



The Group focuses on providing the management with a clear understanding and potential to manage the organization, understand the organization's vision, targets, and strategies in order to determine an integrated corporate strategy for the Group and enhance the Group's competitive advantages. Training courses for development of high-level management such as Proactive Management to create Sustainability in the Organization, Creating a Vision, Mission and SWOT Analysis for the Organization, CFO Orientation for New IPOs and Director Certification Program (IOD), etc.

Department Head



The Group focuses on creating development in preliminary management skills and knowledge relevant to job duties in order to enable Department Head to fulfill tasks in accordance with the organization's strategic plans and apply that to the line-of-command employees. The training courses such as Leadership within you, Criteria for assessing Key Performance Indicators (KPIs), Competencies and Skills, courses in safety at the supervisor level and sustainable self-development (Growth Mindset), etc.

Employee



The Group focuses on providing employees with knowledge and understanding of their responsibilities in various fields and able to apply that to work. The training courses will focus on job skills and those associated with work environment, such as knowledge of operational QCC activities, computer skill courses, professional customer complaint handling, security courses, Personal Data Protection Laws and internal operations of the company, Development Sustainable self (Growth Mindset), etc.

The Company has consistently promoted development of employees' knowledge and potential, which is the Company's policy, in order for them to possess essential skills, knowledge and expertise in work they are responsible for.

For management structuring, the Company has policy to appoint or promote employees on annual basis by considering employees who are knowledgeable and skilled in accordance with career path plan. Moreover, the Company also support participation of employees in work quality improvement continuously such as giving opinions on work development or joining skills test.





Concerning the Company's Board of Directors and top executives, the Board of Directors and the Company have encouraged participation in training courses of Thai Institute of Directors (Thai IOD) and other courses to increase directors and executives' knowledge and understanding in their roles, duties and responsibilities. This is considered as a continuous skills improvement in order to maximize benefits for the development of organization.

Budget and Employees' Development Statistics

The Company has summarized the budget, employees' development statistics, and details of training courses as follows :

1. Budget and Employees' Development Statistics

Details	2020	2021	2022
Training budget (Million Baht)	3.15	2.00	1.20
Number of courses	135	111	95
Number of employees attended	1,022	1,371	1,609
Average number of training hour/ person	13.23	5.01	5.61

Remark : ¹⁾ Employees' potential development for the year 2022 are adjusted according to the epidemic situation of COVID-19

²⁾ Some training course are changed to online format

³⁾ 9 executives as listed in section 7.4.1 attended at least 1 training course/ seminar (Details of executives are disclosed in Attachment 1) representing 100%

2. Details of employees' training courses in 2022 are disclosed in Attachment 7, Sustainability Report, section 3.2.2, Employee Care and Retention.

Labor dispute

The Company had no labor dispute in the past three years.

7.6 Other Important Information

7.6.1 List of persons assigned to be responsible for the Company Secretary, the person taking highest responsibility in Accounting and Finance, the person supervising Accounting, Head of Internal Audit, and Head of Compliance

Company Secretary

To comply with the good corporate governance principles applicable to listed company and the Securities and Exchange Act, the Board of Directors has appointed Ms. Chantra Jongjamareeseethong, Senior Vice President, Office of the Chief Executive Officer, to be the Company Secretary. Her details of appointment, profile, as well as duties and responsibilities according to the Company Secretary Charter are disclosed in Attachment 1.

The person taking highest responsibility in Accounting and Finance

The Company has appointed Mr. Thitipong Techaratanayuenyong, Chief Operating Officer - Accounting and Finance, to be the person taking highest responsibility in Accounting and Finance. He is qualified in accordance with qualifications and conditions specified by the Securities and Exchange Commission and the Stock Exchange of Thailand. His profile is disclosed in Attachment 1.

The person supervising Accounting

The Company has appointed Ms. Suttirat Tangnorakul, Senior Vice President - Accounting, to be the person supervising Accounting. She is qualified in accordance with qualifications and conditions as specified by the Notification of the Department of Business Development. Her profile is disclosed in Attachment 1.

Head of Internal Audit

The Company has appointed Mr. Tanetsiri Farkmitr, Vice President - Internal Audit, to be the Company's Head of Internal Audit. His profile is disclosed in Attachment 3.



Head of Compliance

The Company has appointed Mr. Tanetsiri Farkmitr, Vice President - Internal Audit, to be the Company's Acting Head of Compliance. His profile is disclosed in Attachment 3. In addition, the Company is in the process of recruiting responsible person for this position.

7.6.2 Head of Investor Relations

The Company has appointed Mr. Thitipong Techaratanayuenyong, Chief Operating Officer - Accounting and Finance, to be Head of Investor Relations. In addition, investors and general public may contact the Investor Relations Department at the following:



Phone (66)2 242 5800 Ext. 5876



E-mail thitipong.tec@gunkul.com, ir@gunkul.com



Website <https://www.gunkul.com/en/investor-relations/information-inquiry/ir-contact>



7.6.3 Audit Fee

In 2022, the Company paid audit fee, consisting of the annual audit fee and the quarterly fee for reviewing 3 quarters of interim financial statements in the past fiscal year, totaling 1,830,000.00 baht to KPMG Phoomchai Audit Co., Ltd., the external audit firm, by having Mr. Waiyawat Kosamarnchaiyakij as its representative. Total audit fee in 2022 and the past 2 years can be summarized as follows:

Year	Audit Fee (Baht)
2022	1,830,000.00
2021	1,830,000.00
2020	1,830,000.00

Remark : ¹⁾ The Company did not have other non-audit fee in the past year.

²⁾ The Company had no director or senior executive who were employed by or were a partner of an external audit firm used by the Company during the past 2 years.

The audit fee for subsidiaries, associated companies and joint ventures, both domestic and international, can be summarized as follows:

Year	Audit Fee (Baht)
2022	24,080,643.00
2021	23,762,302.00
2020	22,372,616.00

Remark : Subsidiaries, associated companies and joint ventures, both domestic and international, did not have other non-audit fee in the past year.



8. Report on Key Operating Performance Related to Corporate Governance

Dear Investors of Gunkul Engineering Public Company Limited

The Company's Board of Directors consists of 10 directors with Dr. Gunkul Dhumrongpiyawut as Chairman of the Board of Directors (non-executive director), 4 independent directors, namely Dr. Chongrak Rarueysong, Assoc. Prof. Dr. Panarat Panmanee, Gen. Tarnchaiyan Srisuwan, and Mr. Tarakorn Angpubate, and 5 executive directors, namely Ms. Sopacha Dhumrongpiyawut, Dr. Somboon Aueatchasai, Ms. Naruechon Dhumrongpiyawut, Mrs. Areewan Chaloemdan, and Mr. Chaloempon Sricharoen.

In 2022, the Board of Directors held 11 meetings to perform duties and responsibilities according to the Board of Directors Charter, which can be summarized as follows :

1. Determined and reviewed vision and mission, policies, charters, targets, and business direction to be in accordance with the Company's strategies and good corporate governance principles. As well as supervising, monitoring, and following up on the management to comply with determined policies, strategies and business plan. In addition, the management was required to report operating results to the Board of Directors for acknowledgement consistently.
2. Determined measure and practices on good corporate governance, anti-corruption, conflict of interest, personal data protection, and other applicable measures and practices for management with sustainable development principles and transparency by supervising and following up on the Company's operating results to be in line with anti-corruption measures and other relevant measures, including determining corrective measures in case of problems or obstacles.
3. Determined and reviewed policies, measures and practices on social, environmental and occupational health responsibility to be basic business fundamental, including supervising the implementation of such policies and operating standards.
4. Approved operating plans and budget for the year 2022 and the Company's significant investment projects by taking into account the best interests of the Company, shareholders and all stakeholders as main consideration. As well as overseeing and monitoring budget and implementation of projects to be as planned.
5. Acknowledged the Company's general information report and financial report, reviewed the sufficiency and suitability of the Company's financial report, internal control, and risk management. As well as endorsing the internal control system and financial statements for the year 2022 of the Company and subsidiaries, as reviewed by the Audit Committee jointly with the auditor, to ensure

that such financial statements are true, accurate, complete as appropriate, and in accordance with generally accepted accounting standards, and that adequate disclosures have been made in the notes to the financial statements sufficiently, correctly, completely, timely, equitable and as required by law.

6. Acknowledged the key audit report of the Audit Committee and sub-committees, including the Company's internal audit division, auditor, and consultants. As well as determining the improvement and corrective measures in case the defect found is significant, managed and handled the related transaction to be in accordance with criteria required by laws.
7. Determined systematic risk management throughout the organization to increase awareness of all types of business risks, including environment, social and corporate governance. As well as supervising risk management framework of the Company to be in accordance with international standards, COSO (The Committee of Sponsoring Organizations of the Treadway Commission). As well as managing risks to an acceptable level for the Company's business to be operated with caution and discretion.
8. Arranged performance assessment of the Board of Directors on individual basis, all sub-committees and top executives (Chief Executive Officer : CEO). Such assessment will be applied as guidelines for establishment of policies for continuous organizational development, as well as, disclosing the results of such assessment to shareholders, stakeholders, and investors.



(Dr. Gunkul Dhumrongpiyawut)
Chairman of the Board of Directors
February 27, 2023

8.1 Summary of the Board of Directors' Performance in the Previous Year

Performance of the Board of Directors in the previous year can be summarized as follows :

1. Established and reviewed the vision, mission, policy, charter, goals, and guidelines of the business plan in accordance with the Company's strategy and good corporate governance. This included supervising, monitoring, following up and examining the management to ensure that the management is in accordance with the policies, strategies and business plans that set by the management to regularly report the results of operations to the Board of Directors' meeting.
2. Established measures and guidelines for good corporate governance, anti-corruption, conflicts of interest, personal data protection; as well as, any other applicable measures and guidelines for management with sustainable development principles and transparency, by supervising, monitoring, and following up on the Company's operations to ensure compliance with anti-corruption and other applicable measures, including setting the solution guideline in the event of problems or obstacles.
3. Determined and reviewed policies, measures and practices in social responsibility, environment and occupational health safety as fundamental factors in business operations, including inspected the implementation of such policies and operating standards.
4. Considered and approved the operational plan and budget for the year 2022, the Company's major investment projects by taking into account the best interests of the Company, shareholders and all stakeholders as the main consideration, including supervising, overseeing the budget and implementing various projects according to the plans set out.
5. Acknowledged the report of general information and the Company's financial information, reviewed the sufficiency and suitability of the financial reporting system, internal control system, and the Company's risk management; as well as, considered and endorsed the internal control system, and Financial Statements for the fiscal year 2022 of the Company and its subsidiaries as reviewed by the Audit Committee and the Company's auditors representing financial position and operating results as correct, accurate, and complete in accordance with generally accepted accounting standards and sufficiently disclosed important information in the notes to the financial statements to report to the shareholders, stakeholders and investors correctly, completely, timely, equitably and as required by law.
6. Acknowledged the Audit Committee and sub-committees significant audit reports, including those from the Internal Audit Department, auditors, and advisors from various departments of the Company, and developed guidelines for correction and improvement in the event of a significant defect being discovered; as well as, managing related transactions in accordance with the criteria prescribed by law.
7. Carried out systematic risk management throughout the organization to increase awareness of all types of business risks, including environmental, social and governance risks, by supervising and overseeing the Company's risk management framework in line with international standards COSO (The Committee of Sponsoring Organizations of the Treadway Commission); as well as, managing risks to an acceptable risk level, in order to conduct the business of the Company with caution and prudence.
8. Conducted performance assessment of the Board of Directors on the individual basis, all subcommittees, and top executive (CEO) of the organization, and use those evaluations information as a guideline for improvement and establishing policies for continuous organizational development, together with disclosing the results to shareholders, stakeholders, and investors.





8.1.1 Nomination, Development, and Performance Evaluation of the Board of Directors and Top Executive

The Nomination and Remuneration Committee has screened and nominated the most qualified individuals to serve as directors and top executive officers, taking into account the board skills matrix and the candidates' performance evaluations, gender, ethnic, religion, or any other characteristic is not restricted or discriminated against during this process. Directors and top executives must possess the qualifications, expertise, and abilities necessary to accomplish the Company's goals and strategies, as well as the ability to propel the Company forward and develop sustainably. They must also possess the competencies required of directors under applicable rules and legislation. The specifics are as follows :

(1) Independent Director

The Company establishes criteria for nominating independent directors in accordance with the criteria set by Securities and Exchange Commission ("SEC") for nominating the Company's directors. The minimum qualification of the Independent directors defined by the SEC must meet the following criteria.

1. Holding not more than 0.75% of the total voting shares of the Company, parent company, subsidiaries and affiliates, major shareholders, or controlling person including the shareholding of persons related to the independent director.
2. Not currently be or never been the Company's executive director, employee, worker, salaried consultant, or controlling parties of the Company, parent company, subsidiary, affiliate, same-level subsidiary, major shareholders, unless such person has been discharged from the position at least 2 years prior to appointment as an independent director. However, that this restriction does not apply in the case of an independent director who previously served as a government officer or advisor to a government agency that is one of the major shareholders or controlling party of the Company.
3. Not by blood or legally registered such as being father, mother, spouse, siblings, and children, including spouses of the children of other directors, executives, major shareholders, or a person who will be nominated to serve as a director, executive, or controlling party of the Company or its subsidiary.
4. Not currently having or never had any business relationship with the Company, parent company, subsidiary, affiliate, major shareholder, or controlling person of the Company in a way that such relation may impede the person from having independent views, including not being or having

been a significant shareholder or controlling person of another person who has a business relationship with the Company, parent company, subsidiary, associated, major shareholder, or controlling person of the Company, unless such person has been discharged from the position at least 2 years prior to appointment as an independent director.

Business relationship under the first paragraph includes the normal commercial transactions in the ordinary course of business of the Company, renting or renting out property, transaction relevant to assets or services, granting or obtaining financial assistance in the form of borrowing or lending, guaranteeing, and placing assets as collateral to secure debt including other transaction of similar nature resulting in the Company or the counterparty incur debt and liable to pay to the other party from 3% of the net tangible assets of the Company, or Baht 20 million or more, whichever is lower. The calculation of such debt obligation shall be in accordance with the method of calculating the value of the connected transaction according to the Notification the Capital Market Supervisory Board relating to connected transactions, provided that, only the debt obligation incurred within 1 year prior to the occurrence date of business relationship with that person shall be taken into account.

5. Not currently being or never been the auditor of the Company, parent company, subsidiary, associated, major shareholder, or controlling person of the Company. Also, the person shall not currently be or never been a significant shareholder, controlling person, or partner of the current auditing firm of which the auditor of the parent company, subsidiary, major shareholder, or controlling person of the Company is under association, unless such person has been discharged from the position at least 2 years prior to appointment as an independent director.
6. Not currently be or never been a professional service provider of any kind, including legal or financial advisory services, and receiving service fees in excess of Baht 2 million per year from the Company, parent company, subsidiary, associated, major shareholder, or controlling person of the Company, and not being a significant shareholder, controlling person or partner of that professional service provider, unless such person has been discharged from the position at least 2 years prior to appointment as an independent director.
7. Not currently a director appointed to represent the Company's directors, major shareholders or shareholders related to the Company's major shareholders.
8. Not currently be operating under similar business nature and significantly competes with the Company or its subsidiary; or not a significant partner of partnership, executive director, salaried worker, employee, or consultant; or holding more than 1% of the total voting shares of any other company operating under similar business nature and significantly compete with the Company or its subsidiary.

9. Not under any conditions that may impede the person from having independent views towards the Company's operations. After being appointed as an independent director, the independent directors may be assigned by the Board of Directors to make decisions on the operation of the Company, its parent company, subsidiary, associated, same-level subsidiary, major shareholder or controlling person of the Company with a decision in the form of a collective decision.

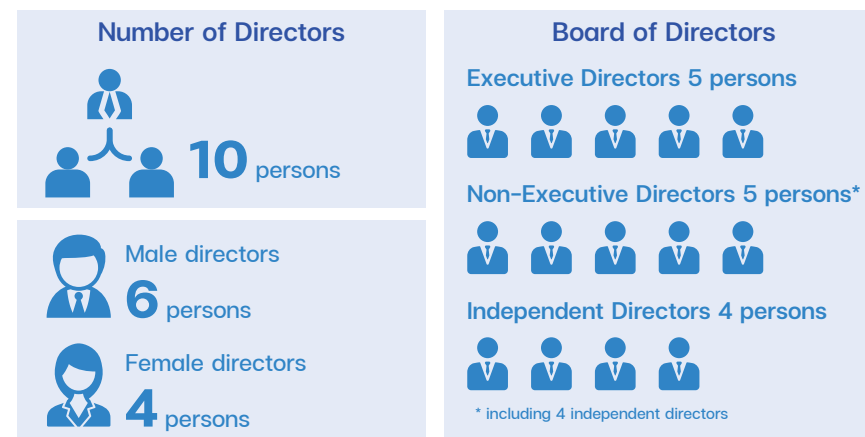
In the event that the person appointed by the Company as an independent director is a person who has or used to have a business relationship or provide professional services exceeding the value specified in item (4) or item (6), the Company shall be granted a waiver of the prohibition of having or having had a business relationship or providing professional services in excess of such value only when the Company has provided the opinion of the Board of Directors showing that they have considered in accordance with the principles in Section 89/7 of the Securities and Exchange Act that the appointment of such person does not affect the performance of duties and giving independent opinions. In addition, relevant information was disclosed in the notice of the shareholders' meeting on the agenda of the appointment of independent directors.








(2) Nomination of Directors and Top Executives

The Board of Directors has established the nomination and appointment process in accordance with the principles of good corporate governance based on transparency and accountability The consideration process shall be as follows :

1. The Nomination and Remuneration Committee consider for the nomination of directors and/or the top executive of the Company according to the specified characteristics.
2. The Nomination and Remuneration Committee present biographies and qualifications to the Board of Directors for approval.
3. The Board of Directors consider and approve the appointment of directors.
4. If the nomination position is the position of a Company director who vacates office by rotation or appoints a Company's director to replace a director whose term is less than 2 months left, it shall be proposed to the shareholders' meeting for consideration.

The Company has a policy of utilizing a consulting firm (Professional Search Firm) or Director Pool to nominate new directors for the nomination and appointment process, and has effective criteria and nomination process based on knowledge, experience, and specific expertise as determined by a competency analysis (Board Skills Matrix), without discrimination, with consideration for equality, without regard for gender, race, religion, or age, for the organization's best interests.



Board Skills Matrix		
Industry and Operations		8 persons
International Business and Marketing		8 persons
Information Technology		5 persons
Strategic Planning and Risk Management		10 persons
Financial and Corporate Finance Management		7 persons
Accounting/ Auditing		5 persons
Legal		3 persons
Human Resource Management and Talent Management		7 persons
Corporate Governance and Business Ethics		10 persons
Public Company Board Service and Governance		10 persons
Economic		9 persons

In addition, the Company has a policy to allow minority shareholders to nominate qualified persons to be considered for election as a director of the Company at the Annual General Meeting of shareholders. The Company will disclose information via the portal of the Stock Exchange of Thailand so, that the shareholders are notified in advance of the meeting day.



(3) Development of directors and top executives

The Company encourages directors and top executives to attend regular training sessions with the Thai Institute of Directors Association (IOD) and/or other curriculum, both internally and externally, to improve their knowledge and understanding of the roles, responsibilities, and skills of directors and executives. This is the process of continual knowledge development for the benefit of the organization's development.

In 2022, the Board of Directors has encouraged and supported the Company's directors and senior executives to attend training courses or seminars to broaden their knowledge of continuous work operations, which can be summarized as follows :

1. 10 out of 10 directors of the Company attended the training course or seminar, representing 100% of the total number of directors. (Details of the directors as shown in Attachment 1). All directors have completed Company Directors Course or other courses offered by the Thai Institute of Directors Association (IOD) or other institutions representing 100% of total directors.
2. 9 executives, as listed in item 7.4.1, have attended at least one training course or seminar (Details of executive credential are set out in Attachment 1) accounted for 100%.

(4) Assessment of the Board of Directors, Sub-Committees, Top Executive, Company Secretary and Secretary to the Audit Committee.

The Company conducts performance assessment for the Board of Directors and all sub-committees to be used for performance consideration and as a guideline for development and improvement, ensuring that the Board of Directors' performance covers all aspects and consistent with the nature of the Company's business operations. The self-assessment of the Board of Directors shall be on an individual and group basis while all sub-committees' self-assess shall be on a group basis. Performance assessment shall be conducted annually. The assessment's procedure and criteria shall cover the following points :

Assessment Procedure

Self-assessment Procedure of the Board of Directors, Sub-Committees, Chief Executive Officer (CEO), Company Secretary and the Secretary to the Audit Committee

1. The Board of Directors establishes a self-assessment form for each member of the Board of Directors on an individual and group basis, for sub-committees on a group basis, a self-assessment form for the Chief Executive Officer's (CEO), who is the organization's top executive, the Company Secretary, and Secretary to the Audit Committee, which shall be completed once a year. The self-assessment form shall be used to determine whether an individual has adhered to the policy and/or best practices, as well as to review and improve the performance over the previous year.
2. The Board of Directors approves and reviews the Board of Directors', Chief Executive Officer's (CEO's), Company Secretary's, and Audit Committee's performance assessment forms. The Sub-Committee shall approve and review the self-assessment form used by their group's committees to ensure that it is accurate, complete, and meets the regulatory agency's criteria.
3. The Company Secretary submits a self-assessment form to the Board of Directors on behalf of the Board of Directors, the Chief Executive Officer (CEO), the Company Secretary, and Secretary to the Audit Committee. Secretary to each Sub-Committee's submits self-assessment form of its group committee within December of each year.
4. The directors, CEO, and Managing Director complete and return the self-assessment form to the Company Secretary and each group's sub-committee completes the self-assessment form and submits it to the secretary of the group committee within January of each year.
5. The Company Secretary/ Secretary to the sub-committees summarizes the assessment results and incorporates them into the Board of Directors' meeting agenda so that the Board of Directors can analyze the performance evaluation result of the Board of Directors, Sub-committee, Chief Executive Officer (CEO), Company Secretary, and Secretary to the Audit Committees.
6. The Secretary of the Board of Directors/ Secretary to the sub-committees presents analysis findings and additional Board of Directors opinions in order to develop a plan for improvement.



Assessment Criteria and Topics

1. Board of Directors' self-assessment form

Group	Individual
1. Structure and Qualifications of the Board of Directors	1. Structure and Qualifications of the Board of Directors
2. Roles, duties, and responsibilities of the Board of Directors	2. Roles, duties, and responsibilities of the Board of Directors
3. Board of Directors' Meeting	3. Board of Directors' Meeting
4. Responsibilities of the Company's Directors	
5. Relationship with Management	
6. Self-development of Directors and Executives	

2. Self-assessment form of sub-committees

Audit Committee

Group
1. Structure and Qualifications of the Audit Committee
2. Roles, duties, and responsibilities of the Audit Committee
3. Audit Committee's Meeting
4. Relationship with Management
5. Self-development of the Audit Committee

Risk Management Committee, Nomination and Remuneration Committee, Good Corporate Governance and Sustainable Development Committee, and Executive Committee

Group
1. Structure and Qualifications of the committee
2. Roles, duties, and responsibilities of the committee
3. Meeting of the committee
4. Committee Reporting

3. Self-Assessment Form of Top Management

Individual
Section 1 Progress of the Plan
Section 2 Performance Measurement
1. Leadership
2. Strategy establishment
3. Strategy implementation
4. Financial planning and performance
5. Relationship with the Board of Directors
6. External Relationship
7. Management and relationship with personnel
8. Succession plan
9. Product and service knowledge
10. Personal characteristic
Section 3 Development of Chief Executive Officer
1. Significant strengths that the CEO should maintain
2. Issues that the CEO should further develop in the next year



4. Self-Assessment Form of Company Secretary and the Secretary to the Audit Committee

Individual

1. Qualifications of Company Secretary/ Secretary to the Audit Committee
2. Roles, Duties and Responsibilities of Company Secretary/ Secretary to the Audit Committee

To enable the Board of Directors, Sub-committees, Chief Executive Officer, Company Secretary, and Secretary to the Audit Committee to compare assessment results by topic or by year. The scoring method as follows (full score of 4 points or equivalent to 100 percent) :

- 0 = Strongly disagree or take no action in that matter
- 1 = Disagree or take minor action in that matter
- 2 = Agree or take reasonable action in that matter
- 3 = Relatively agree or take good action in that matter
- 4 = Strongly agree or take excellent action in that matter

Each self-assessment questionnaire includes the following assessment criteria expressed as a percentage of the total score as follows :

Score range (percentage)	Assessment results
Over 90	Excellent
More than 80 - 90	Good
More than 70 - 80	Fair
Less than 70	Needs Improvement

In 2022, the Board of Directors' and each director's performance evaluations, as well as the results of all sub-committees, including the Audit Committee, the Risk Management Committee, the Nomination and Remuneration Committee, the Good Corporate Governance Committee, and the Executive Committee, was resulted as excellent.

(5) Director Orientation

The Company realizes the importance of new directors performing their duties by requiring all new directors to attend "Orientation for new directors" at the Company's discretion. The Company will prepare information and explanations about the Company's business, as well as other pertinent information, in order for the directors who have been appointed in the position of in the Company are acknowledged. There are significant contents, including the roles, duties, and responsibilities of director and each group of sub-committee, the holding and trading of directors' securities, reporting on directors' benefits, meeting administration, disclosure of information, liaison with management, remuneration, and director and sub-committee's privileges, table of authority, general information about the Company, Audit Committee's Charter, Internal Audit Committee's Charter, and the scope of the Audit Committee's and Internal Audit's duties and responsibilities and related-party transaction measure.





8.1.2 Directors' Meeting Attendance and Remuneration Payment of each Director

Meeting attendance of the Board of Directors and Sub-committees for the year 2021 and 2022

No.	Name		Board of Directors		Audit Committee		Risk Management Committee		Nomination and Remuneration Committee		Good Corporate Governance and Sustainable Development Committee ²⁾		Executive Committee	
			Year 2021	Year 2022	Year 2021	Year 2022	Year 2021	Year 2022	Year 2021	Year 2022	Year 2021	Year 2022	Year 2021	Year 2022
			(10 times)	(11 times)	(5 times)	(5 times)	(4 times)	(6 times)	(2 times)	(2 times)	(4 times)	(4 times)	(32 times)	(29 times)
Board of Directors and Sub-committees														
1.	Dr. Gunkul	Dhumrongpiyawut	10/10	11/11										
2.	Dr. Chongrak	Rarueysong ¹⁾	10/10	11/11	5/5	5/5					4/4	4/4		
3.	Assoc.Prof. Dr. Panarat	Panmanee ¹⁾	10/10	11/11	5/5	5/5								
4.	Gen. Tarnchaiyan	Srisuwan ¹⁾	10/10	11/11										
5.	Mr. Tarakorn	Angpubate ¹⁾	10/10	11/11	5/5	5/5	4/4	6/6						
6.	Ms. Sopacha	Dhumrongpiyawut	10/10	11/11			4/4	6/6					32/32	29/29
7.	Dr. Somboon	Aueatchasai	10/10	11/11									32/32	29/29
8.	Ms. Naruechon	Dhumrongpiyawut	10/10	11/11									32/32	29/29
9.	Mrs. Areewan	Chaloemdan	10/10	11/11									32/32	29/29
10.	Mr. Chaloepon	Sricharoen	10/10	11/11									32/32	29/29
11.	Mr. Somchai	Trairatanapirom ¹⁾					4/4	6/6			4/4	4/4		
12.	Mr. Thitipong	Techaratanayuenyong					4/4	6/6						
13.	Pol.Maj.Gen. Visit	Sukarasep ¹⁾							2/2	2/2				
14.	Mr. Decha	Chooligorn ¹⁾							2/2	2/2				
15.	Mr. Hathai	Uthai ¹⁾							2/2	2/2				
16.	Mrs. Somluk	Kanuenghet							2/2	2/2				
17.	Mr. Pongtep	Thithapand ¹⁾									4/4	4/4		
Directors who resigned/ completed their terms during the year 2022 who receive remuneration														
1.	Mr. Kris	Chantanotoke ¹⁾	10/10	7/7										

Note : ¹⁾ Independent director

²⁾ The resolution of the Board of Directors Meeting No. 11/2022 held on November 10, 2022 approved to change the name from "Good Corporate Governance Committee" to "Good Corporate Governance and Sustainable Development Committee"



Board of Directors' and Sub-committees' Remuneration

The Company has set a clear and transparent policy on directors' remuneration. The Nomination and Remuneration Committee will consider and propose the directors' remuneration to the Board of Directors for a further propose to the Annual General Meeting of Shareholders for approval. The directors' remuneration is at an appropriate level compared to the directors' remuneration of listed companies in the energy industry, which is comparable to that of the Company's business. The Board of Directors has set the criteria, methods of consideration and the component of the remuneration as follows :

1. Criteria and methods of consideration

The Board of Directors has assigned the Nomination and Remuneration Committee to be responsible for proposing the remuneration of all committees for submission to the Board of Directors for consideration and propose to the Annual General Meeting of Shareholders for approval. The criteria for consideration are as follows :

1. Roles, scope, authority, duties and responsibilities of the Board of Directors and each sub-committee
2. The collective and individual performance of the committees
3. The Company's operational performance by considering based on type and size of the Company's business
4. The remuneration survey, in comparison with other companies in the same industry

2. Components of remuneration

To ensure compliance with the obligations, responsibilities, and performance of each director, the components of directors' remuneration is established and divided into 2 parts as follows :

Meeting Allowance

Position	Board of Directors	Audit Committee	Good Corporate Governance and Sustainable Development Committee	Risk Management Committee	Nomination and Remuneration Committee	Executive Committee
1. Chairman	25,000	25,000	20,000	20,000	20,000	7,500
2. Director	20,000	18,000	15,000	15,000	15,000	5,000
3. Secretary	8,000	8,000	8,000	8,000	8,000	-

Note : In case of independent directors have been appointed as the Chairman of each committee, such person shall be entitled to receive meeting allowance for only one highest position held in each committee.

Annual Remuneration

Position	Board of Directors	Audit Committee	Good Corporate Governance and Sustainable Development Committee	Risk Management Committee	Nomination and Remuneration Committee	Executive Committee
1. Chairman	750,000	300,000	100,000	100,000	100,000	500,000
2. Director	300,000	200,000	100,000	100,000	100,000	200,000
3. Secretary	50,000	50,000	25,000	25,000	25,000	-
4. Company Secretary	100,000	-	-	-	-	-

Note : In case independent directors have been appointed as the Chairman of each committee, he/ she shall be entitled to receive annual remuneration of the committee for only one highest position held in each committee.

The maximum limit for all types of remuneration is set as follows :

Position	Maximum amount of not exceeding (Baht/ person/ year)
Chairman of the Board of Directors	3,500,000
Chairman of the Executive Committee	2,500,000
Chairman of all sub-committees (except Chairman of the Board of Directors and Chairman of the Executive Committee)	1,500,000
Chief Executive Officer	1,000,000
Executive Director	800,000
Other member of sub-committees (except Executive Directors)	400,000

If a director holds more than one position, the remuneration shall be calculated from the aggregate amount of remuneration of all types, including meeting allowance and annual remuneration but not exceeding the cap or maximum rate applicable to the director's highest position. If a director holds more than one position, the remuneration shall be paid at the maximum rate applicable to the highest position held. Total annual remuneration for all types and positions shall not exceed THB 18,000,000/ annum.



3. Remuneration Determination Procedure

The Board of Directors has established the procedure for determining the remuneration that is consistent with good corporate governance principles and adheres to the transparency and auditability by outlining the steps of consideration as follows :

1. The Nomination and Remuneration Committee considers and determines the directors' remuneration, which is divided into 2 components : 1) meeting allowance 2) annual remuneration.
2. The Nomination and Remuneration Committee proposes the aforementioned remuneration to the Board of Directors for approval.
3. The Board of Directors approves and proposes to the Annual General Meeting of Shareholders for approval.
4. Annual General Meeting of Shareholders considers and approves the remuneration.

4. Remuneration for the year 2021 and 2022

In 2021 and 2022, the Company had the directors' remuneration, both monetary and non-monetary, as follows :

1. Monetary Remuneration : The total amount of directors' remuneration was THB 9,990,000.00 in 2021 and THB 10,191,500 in 2022.

No.	List		Remuneration for the year 2021 ^{2) 3)}			Remuneration for the year 2022 ^{2) 3)}		
			(Meeting Allowance and Annual Remuneration)			(Meeting Allowance and Annual Remuneration)		
			Board of Directors	Sub-committees	Total Remuneration	Board of Directors	Sub-committees	Total Remuneration
Board of Directors and Sub-committees members								
1.	Dr. Gunkul	Dhumrongpiyawut	975,000.00	-	975,000.00	1,000,000.00	-	1,000,000.00
2.	Dr. Chongrak	Rarueysong ¹⁾	480,000.00	585,000.00	1,065,000.00	500,000.00	585,000.00	1,085,000.00
3.	Assoc.Prof. Dr. Panarat	Panmanee ¹⁾	480,000.00	290,000.00	770,000.00	500,000.00	290,000.00	790,000.00
4.	Gen. Tarnchaiyan	Srisuwan ¹⁾	480,000.00	-	480,000.00	500,000.00	-	500,000.00
5.	Mr. Tarakorn	Angpubate ¹⁾	480,000.00	470,000.00	950,000.00	500,000.00	510,000.00	1,010,000.00
6.	Ms. Sopacha	Dhumrongpiyawut	480,000.00	660,000.00	1,140,000.00	500,000.00	697,500.00	1,197,500.00
7.	Dr. Somboon	Aueatchasai	602,000.00	200,000.00	802,000.00	630,000.00	205,000.00	835,000.00
8.	Ms. Naruechon	Dhumrongpiyawut	480,000.00	200,000.00	680,000.00	500,000.00	205,000.00	705,000.00
9.	Mrs. Areewan	Chaloemdan	480,000.00	200,000.00	680,000.00	500,000.00	205,000.00	705,000.00
10.	Mr. Chaloempon	Sricharoen	480,000.00	200,000.00	680,000.00	500,000.00	205,000.00	705,000.00
11.	Mr. Somchai	Trairatanapirom ¹⁾	-	340,000.00	340,000.00	-	370,000.00	370,000.00
12.	Mr. Thitipong	Techaratanayuenyong	-	217,000.00	217,000.00	-	263,000.00	263,000.00
13.	Pol.Maj.Gen. Visit	Sukarasep ¹⁾	-	140,000.00	140,000.00	-	140,000.00	140,000.00
14.	Mr. Decha	Chooligorn ¹⁾	-	130,000.00	130,000.00	-	130,000.00	130,000.00
15.	Mr. Hathai	Uthai ¹⁾	-	130,000.00	130,000.00	-	130,000.00	130,000.00
16.	Mrs. Somluk	Kanuenghet	-	171,000.00	171,000.00	-	171,000.00	171,000.00
17.	Mr. Pongtep	Thithapand ¹⁾	-	160,000.00	160,000.00	-	160,000.00	160,000.00



No.	List	Remuneration for the year 2021 ^{2) 3)} (Meeting Allowance and Annual Remuneration)			Remuneration for the year 2022 ^{2) 3)} (Meeting Allowance and Annual Remuneration)		
		Board of Directors	Sub-committees	Total Remuneration	Board of Directors	Sub-committees	Total Remuneration
Directors who resigned/ completed their terms during the year 2022 and received remuneration							
1.	Mr. Kris Chantanotoke ¹⁾	480,000.00	-	480,000.00	295,000	-	295,000.00
		5,897,000.00	4,093,000.00	9,990,000.00	5,925,000.00	4,266,500.00	10,191,500.00

Note : ¹⁾ An independent director

²⁾ The Company pays annual remuneration on a quarterly basis. The Annual remuneration for the 1st - 4th quarter will be paid within the year. The Annual remuneration stated in the “remuneration” table is the remuneration recorded in accordance with the accounting period of that year.

³⁾ It is the meeting allowance and annual remuneration that the Executive Committee shall receive from attending the meetings and holding the position in 2021 - 2022. The Executive Committee member of 5 persons did not wish to receive meeting allowance.

⁴⁾ 10 Directors did not wish to receive meeting allowance for the Board of Directors Meeting No. 3/2022 in the amount totaling of THB 233,000. (including 1 director who resigned during the year)

In this regard, the Company does not have any independent director as an independent director of its subsidiaries or the same-level subsidiary.

2. Non-monetary Compensation Year 2021 : None

Year 2022 : None

Position holding of the directors in 2022

No.	Name	Position Starting Date	Total number of years in current position (December 31, 2022)						Date of resignation/ due date	number of months in position	
			Director	Audit Committee	Risk Management Committee	Nomination and Remuneration Committee	Good Corporate Governance and Sustainable Development Committee	Executive Committee		Year 2021 (month)	Year 2022 (month)
1.	Dr. Gunkul Dhumrongpiyawut	August 10, 2009 ²⁾	13 years 5 months							12	12
2.	Dr. Chongrak Rarueysong ¹⁾	July 3, 2015/ July 3, 2015/ July 3, 2015 ³⁾	7 years 6 months	7 years 6 months			7 years 6 months			12	12
3.	Assoc.Prof. Dr. Panarat Panmanee ¹⁾	April 20, 2018/ May 14, 2018 ⁶⁾	4 years 8 months	4 years 8 months						12	12
4.	Gen. Tarnchaiyan Srisuwan ¹⁾	April 18, 2019	3 years 8 months							12	12

Board of Directors and Sub-committees



No.	Name		Position Starting Date	Total number of years in current position (December 31, 2022)						Date of resignation/ due date	number of months in position	
				Director	Audit Committee	Risk Management Committee	Nomination and Remuneration Committee	Good Corporate Governance and Sustainable Development Committee	Executive Committee		Year 2021 (month)	Year 2022 (month)
5.	Mr. Tarakorn	Angpubate ¹⁾	April 20, 2018/ December 14, 2020/ February 20, 2019 ⁵⁾	4 years 8 months	2 years 1 months	3 years 10 months					12	12
6.	Ms. Sopacha	Dhumrongpiyawut	August 10, 2009/ August 10, 2009/ August 10, 2009 ²⁾	13 years 5 months		13 years 5 months				13 years 5 months	12	12
7.	Dr. Somboon	Aueatchasai	June 9, 2010 ³⁾ / August 10, 2009 ⁷⁾	12 years 7 months						13 years 5 months	12	12
8.	Ms. Naruechon	Dhumrongpiyawut	August 10, 2009/ August 10, 2009 ²⁾	13 years 5 months						13 years 5 months	12	12
9.	Mrs. Areewan	Chaloemdan	August 10, 2009/ August 10, 2009 ²⁾	13 years 5 months						13 years 5 months	12	12
10.	Mr. Chaloempon	Sricharoen	August 10, 2009/ August 10, 2009 ²⁾	13 years 5 months						13 years 5 months	12	12
11.	Mr. Somchai	Trairatanapirom ¹⁾	June 22, 2015/ February 25, 2013 ⁴⁾			7 years 6 months		9 years 10 months			12	12
12.	Mr. Thitipong	Techaratanayuenyong	November 12, 2014			8 years 2 months					12	12
13.	Pol.Maj.Gen. Visit	Sukarasep ¹⁾	February 20, 2019				3 years 10 months				12	12
14.	Mr. Decha	Chooligorn ¹⁾	November 9, 2012				10 years 2 months				12	12
15.	Mr. Hathai	Uthai ¹⁾	November 12, 2015				7 years 2 months				12	12
16.	Mrs. Somluk	Kanuenghet	August 10, 2009				13 years 5 months				12	12
17.	Mr. Pongtep	Thithapand ¹⁾	February 25, 2013					9 years 10 months			12	12



No.	Name	Position Starting Date	Total number of years in current position (December 31, 2022)						Date of resignation/ due date	number of months in position	
			Director	Audit Committee	Risk Management Committee	Nomination and Remuneration Committee	Good Corporate Governance and Sustainable Development Committee	Executive Committee		Year 2021 (month)	Year 2022 (month)
Directors who resigned/completed their terms during the year 2022 who received remuneration											
1.	Mr. Kris Chantanotoke ¹⁾	November 6, 2019	3 years 2 months						July 29, 2022	12	7

- Note :**
- ¹⁾ Independent director
 - ²⁾ August 10, 2009 was the date on which GUNKUL transformed into a public company. On such date, the Company had registered with the Department of Business Development for the first set of Board of Directors to take the position as the directors of the public company.
 - ³⁾ The date of registration as a director of the Company as registered with Department of Business Development.
 - ⁴⁾ The date of holding the position as member of the Good Corporate Governance Committee (currently holding the position of the Chairman of the Good Corporate Governance and Sustainable Development Committee) and member of the Risk Management Committee, respectively.
 - ⁵⁾ The date of holding the position as member of the Board of Directors, member of the Audit Committee and Chairman of the Risk Management Committee, respectively.
 - ⁶⁾ The date of holding the position as member of the Board of Directors and member of the Audit Committee, respectively.
 - ⁷⁾ The date of holding the position as member of the Board of Directors and member of the Executive Committee, respectively.

Changes of Director in 2022

In 2022, the Company's Annual General Meeting of Shareholders held on April 27, 2022, approved the election of directors who have completed their terms to serve another term as the Company's directors, totaling 4 persons as follows :

1. Dr. Gunkul Dhumrongpiyawut
2. Gen. Tarnchaiyan Srisuwan
3. Mr. Kris Chantanotoke
4. Ms. Naruechon Dhumrongpiyawut



8.1.3 Governance of Subsidiaries and Associated Companies

(1) Mechanisms to govern, manage and be responsible for the operation in subsidiaries and associated companies as approved by the Board of Directors

The Company has established policy regulation in case of nominating and using voting right to elect a person to be the director of subsidiaries and associated companies that it shall be approved by the Board of Directors. The person appointed as a director of subsidiaries or associated companies is obliged to act in the best interests of the subsidiaries and associated companies. The Company requires that the appointed person must be approved by the Board of Directors prior to voting or exercising their voting rights on important matters at the same level as those required by the Board of Directors. Assigning director to act as the representative of such subsidiaries and associated companies is consistent with the Company's shareholding proportion. Additionally, in case of the subsidiary, the Company prescribes regulations for persons appointed by that Company to ensure that the subsidiary has regulations on related party transactions, acquisition or disposition of assets, and must supervise the suitability and sufficiency of the internal control system or any other important transactions of such company to be complete and accurate; adhere to the rules governing information disclosure; and carry out the above transactions in the same manner as stated in the Company's practice; supervise the collection of data and recording of the subsidiary's accounts to facilitate the Company for inspection and gather information for preparing consolidated financial statements in a timely manner.

Summary of the procedure and scope of authority are as follows :

1. Sending representatives of the Company to be directors or executives in subsidiaries or associated companies shall be in accordance with the shareholding or as agreed. The number and person representing the Company shall be approved by the Board of Directors.
2. Scope of authority and responsibility of directors and executives representing the Company in subsidiaries or associated companies.
 - 1) Establishing important policies of subsidiaries and associated companies shall be in accordance with the framework of the Company's policies.
 - 2) Performing any actions of subsidiaries and associated companies shall be in compliance with the Article of Association of subsidiaries and associated companies, and shareholders' agreement (if any).

- 3) The implementation of the important agenda of subsidiaries and associated companies shall be proposed to the Board of Directors' meeting and/or the shareholders' meeting of the Company (as the case may be) for approval before proceeding.
- 4) The Company has controlling procedure regarding the operation of important matters for governing the Company, subsidiaries and associated companies, to be based on the same standards and formats, which include disclosure on financial information and performance, related party transactions, acquisition or disposition of assets, other important transactions, appropriate and adequate internal control system, as well as the consideration in the matter of capital increase, capital reduction and dissolution of subsidiaries and associated companies.

The above-mentioned procedure also covers Holding Company.

(2) Disclosure of agreements between the Company and other shareholders in the management of Subsidiaries and associated Companies (Shareholders' Agreement)

In the development of some new projects, the Company has developed and implemented projects with business partners in which a new joint venture company will be set up to specifically develop and own the project. In the management of the aforementioned joint venture company, it is often a commercial practice in which venture capitalists enter into a shareholder agreement to determine the rights, duties, and management of the joint venture company.

The Company's shareholder agreement contains brief agreements on issues such as the shareholding portion; the agreement on the duties of managing a joint venture company; agreement on the right to appoint directors; voting at the board of directors meeting and matters requiring approval from the board of director; agreement on voting rights at the shareholders meeting and matters requiring approval from the shareholders meeting; right to dividend and the right to receive capital back; right of first refusal and tag along right in the event that an agreement cannot be reached and the dissolution of the joint venture. All agreements will also appear in the Articles of Association of subsidiaries and associated companies to enable other parties to review.



8.1.4 Monitoring to Ensure Compliance with Policies and Corporate Governance Practices

(1) Prevention of conflicts of interest

The Company requires persons who have a conflict of interest or an interest in the transaction under consideration to notify the Company of their relationship or stake in the transaction. If the person is a director, such person must abstain from decision-making and have no authority to approve the transactions.

If there is a conflict-of-interest transaction that is not a general commercial condition, it must be proposed to the Board of Directors Meeting for approval and must fulfil the criteria established by the Capital Market Supervisory Board, the Securities and Exchange Commission, the Stock Exchange of Thailand, or any other applicable regulatory authority.

(2) Use of insider information for personal benefit

The Company has established policies and procedures for supervising directors and executives regarding the use of insider information for personal benefit, which are disclosed in Article 6.1.2 of Good Corporate Governance Policy, Policy and Practice Guideline concerning shareholders and stakeholders, Re : “Equal Treatment of Shareholders” and Re : “Supervision on the Use of Insider Information”.

(3) Anti-Corruption

The Company enforces anti-corruption policy, whistleblowing or complaints as disclosed on the Company’s website in which directors, executives, employees, and workers are forbidden to act in any way related to corruption in any form, neither directly nor indirectly, whether as a recipient, a giver, or offer a bribe to a person or organization involved. The policy and practice guidelines are regularly reviewed annually. To comply with changes in business, rules, regulations and legal requirements, the Company has signed the declaration of intent for the Thai Private Sector Collective Action Against Corruption (CAC) and has been certified as a member of the project since 2017 and has been certified as a member for the second time in a consecutive year in 2020. The Company also communicate and advertise to employees to create knowledge, understanding and cultivate culture and corporate values against corruption in every channel, and able to convey the essence of this policy to the stakeholders. In addition, the Company also encourages business partners to join the network and join the CAC as well.

(4) Whistleblowing

The Company has provided channels for complaints and whistleblowing if there is any doubt or have found any wrongdoing/ violators of the following :

1. Discover an act of corruption relating to the Group directly or indirectly, such as finding a person in the organization bribery/ grafting government officials or private agencies;
2. Discover an act that violates the procedures of the Group’s practice that affects the internal control system of the Company to the point where it can be assumed to be a channel for corruption;
3. Discover an act that results in the Group losing benefit and jeopardizes the Group’s reputation; and
4. Discover an act that is unlawful, immoral, and against business ethics.

Channels for Complaints and/or Reporting Clue



Contact the Audit Committee :
audit_committee@gunkul.com



Website : www.gunkul.com
In the section “Whistle Blowing Form”



**Send Sealed Postage
to the Chairman of the Audit Committee**
Gunkul Engineering Public Company Limited
1177 Pearl Bangkok Building, 8th Floor, Phaholyothin Rd.,
Phayathai Subdistrict, Phayathai District, Bangkok 10400



Whistleblowing and complaints box at the Company
(Open the box by the Audit Committee and/or the secretary
to the Audit Committee)



In 2022, the Company conducted training on anti-fraud and corruption for all committees, executives and employees, including provided knowledge on anti-corruption courses to new employees on the orientation day as well. Additionally, no instances of fraud or corruption have been discovered through the Company's channels for reporting fraud and corruption.

Channels of Complaint about corruption	The Annual Follow up of Complaint about Corruption																							
	2022																							
	Jan.		Feb.		Mar.		Apr.		May.		Jun.		Jul.		Aug.		Sep.		Oct.		Nov.		Dec.	
	15	31	15	28	15	31	15	30	15	31	15	30	15	31	15	31	15	30	15	31	15	30	15	31
E-mail	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Website	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Postage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Complaints Box																								
- Pearl Bangkok Building Office	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
- Pichai Warehouse Office	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
- GKA & GKP Office	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

X = Data collected and no complaint

8.2 Report of the Audit Committee

The Audit Committee consists of independent directors who are qualified and knowledgeable, competent and experienced in accounting, finance, legal, management and energy business. The qualifications of those independent directors are in accordance with the requirements of the Securities and Exchange Commission and the Stock Exchange of Thailand. The Audit Committee has 3 members namely, Dr. Chongrak Rarueysong as the Chairman of the Audit Committee, Assoc.Prof. Dr. Panarat Panmanee and Mr. Tarakorn Angpubate as Members of the Audit Committee.

The Audit Committee has performed their duties and responsibilities that assigned by the Board of Directors in full compliance with the Audit Committee Charter (Details are available on the Company's website at (<https://www.gunkul.com/storage/download/cg/2023/20230321-gunkul-charter-audit-en.pdf>) as well as in accordance with the requirements and best practices for the Audit Committee as specified by the Stock Exchange of Thailand. The Audit Committee also reported the performance to the Board of Directors on a regular basis.

In the year 2023, the Audit Committee held 5 meetings. All members of the Audit Committee attended all meetings every time to review financial reports, related parties transaction (RPT) or reports that may have conflicts of interest, internal control system, fraud reports and other matters. In addition, the financial and accounting management, Auditor and Head of Internal Audit as well as other executives were invited to attend the meetings in order to provide information, acquire comments and recommendations which were benefit to the Company's operation. Moreover, the Audit Committee arranged 1 meeting between the Audit Committee and the Auditor in an absence of the management. The results of each meeting were presented to the Board of Directors of the Company. During past year, the Audit Committee carried out important activities, which could be summarized as follows;

1. Reviewed the financial statements, the Audit Committee reviewed the Quarterly and Yearly Financial Statements, as well as related financial reports by cooperating with the Certified Public Accountant and the Company's management on material issues, review the appropriateness of important accounting policies, adjustments of material accounting items, accounting estimation that affect financial information and financial reports, Key Audit Matters (KAM), using of discretion in the preparation of financial statements, including the independence of the auditor. to ensure that the Company's financial reports are prepared accurately in accordance with Thai Financial Reporting Standards and in line with International Financial Reporting Standards, with adequate information disclosure, completely and reliable, complies with applicable laws and regulations, before the financial statements were submitted to the Board of Directors or shareholders for approval.

- 2. Reviewed the adequacy and appropriateness of the internal control system,** the Audit Committee reviewed the adequacy, appropriateness and effectiveness of the internal control system of the Company and its subsidiaries by appraised from the reports of the Company's internal audit and the Auditor. This included the evaluation of the internal control system in accordance with the guidelines set forth by the Securities and Exchange Commission. The Audit Committee was of the view that the Company has an appropriate and adequate internal control system and reasonably assure that the Company has sufficient and effective internal control system.
- 3. Supervised of internal audit,** the Audit Committee supervised the Internal Audit Department to have independence as specified in the Internal Audit charter, in order to ensure that the internal audit practices have efficiency and effectiveness, accurate and comply with the rules and regulations of the Securities and Exchange Commission and international standards. The Audit Committee reviewed the suitability and endorsed the annual internal audit plan, including reviewing the annual internal audit plan to ensure that the audit plan has been revised in accordance with the changing situation with efficiency and effectiveness, by incorporated a risk-based approach, considered and reviewed the internal audit report of the Internal Audit Department, together with providing comments and recommendations for the internal control improvement, also continuously follow up on the implementation of the suggestions in the audit reports of internal auditors and auditors in order to acknowledge the cause and suggest ways to prevent damage that may occur to the management, by following up and reviewing to ensure that the management has followed the recommendations to the internal control system in order to prevent recurring incidents.





4. **Reviewed the risk management**, the Audit Committee reviewed the risk management procedure in order to ensure that the risk management procedure was appropriate and effective, resulting in reduction of the associated risks to an acceptable level. Since the Company has given priority to develop the risk management procedure, the Board of Directors also appointed the Risk Management Committee to establish the risk management framework and policies to be effectively implemented throughout the Company Group and its subsidiaries in accordance with the Company's goals.
 5. **Reviewed related party transactions that may have conflicts of interest**, the Audit Committee has given great importance to the consideration of related party transactions and transactions that may have conflicts of interest in accordance with the laws and regulations of the Stock Exchange of Thailand on a quarterly basis by assigning the Internal Audit Department to monitor and review the preliminary accuracy and forward to the Auditor to review such transactions annually. The Audit Committee is of the opinion that the management has decided and considered the connected transactions for the benefit of the Company, at an arm's length basis and performed in accordance with general commercial terms reasonable, and according to the normal business of the Company for the greatest benefit to the Company, without beneficial to any party. Moreover, the related party transactions were disclosed following the process guideline and relevant law and regulations.
 6. **Ensured the compliance with the Securities and Exchange Act**, the Audit Committee reviewed the operations and directed the Company to perform various transactions in accordance with the Securities and Exchange Act, notifications and regulations of the Stock Exchange of Thailand as well as other specific laws that relating to the Company's business. In addition, the Audit Committee urged the Company to follow up on the laws which under hearing process and may have an impact on the Company in order to prepare before the announcement. The Audit Committee also approved the establishment of the Compliance Unit under the Internal Audit Department to supervise and monitor operations in accordance with all relevant laws, in order to comply with the principles of good corporate governance.
 7. **Encouraged good corporate governance and considered complaints about fraud or corruption**, the Audit Committee emphasized the Company's operations to adhere with good corporate governance practice, the system for receiving complaints, including providing channels for employees, shareholders and stakeholders to be able to conveniently contact the Audit Committee directly in order to be able to make the complaints, illegal or business ethical misconduct, or inquiries in financial reports or internal control systems to the Audit Committee, via email, website, postal and whistleblower box as well as having measures to protect the informant and to be treated as confidential.
 8. **Evaluated Performance**, the Audit Committee evaluated its performance by group self-assessment in accordance with the guidelines of the Stock Exchange of Thailand. The assessment results show that the Audit Committee has performed its duties and responsibilities as specified in the Audit Committee Charter, by adhering to the principles of accuracy, prudence, transparency and sufficient independence, with no restriction on access to information from executives, employees and related parties; as well as, giving constructive opinions and suggestions for the benefit of all stakeholders equally.
 9. **Reviewed the Audit Committee Charter**, the Audit Committee has reviewed the appropriateness of the Audit Committee Charter annually in line with best practices and regulations of the Capital Market Supervisory Board and the Stock Exchange of Thailand, including international practices.
 10. **Considered, selected, proposed the appointment and determined the remuneration of the Auditor of the Company**, the Audit Committee considered the qualification of the Auditors by taking into account the independency, business knowledge including audit fees. Hence, the Audit Committee proposed the Board of Directors to consider appointing an Auditor approved by the SEC, namely Mr. Waiyawut Kosamarnchaiyakij, Certified Public Accountant No. 6333 and/or Ms. Dussanee Yimsuwan, Certified Public Accountant No. 10235, and/or Ms. Sophit Prompol, Certified Public Accountant No. 10042 from KPMG Phoomchai Audit Ltd. to be the Auditor of the Company and its subsidiaries for the year 2023 and endorsed, in order to propose to the 2023 Annual General Meeting of for approval.
- In conclusion, the Audit Committee was of the opinion that the Company provided accurate, complete and reliable financial reports, with an adequate internal control system and good corporate governance practices that complying with the Securities and Exchange Act, notifications and regulations of the Stock Exchange of Thailand and other relevant laws. The information on related party transactions or transactions that may have conflicts of interest were fully disclosed.

(Dr. Chongrak Rarueysong)
Chairman of the Audit Committee
February 27, 2023

8.3 Reports of Sub-Committees

8.3.1 Report of the Risk Management Committee

Risk management is an important and vital action that the organization must perform in operating business. The Company recognizes the importance of risk management in its business operations. The Company and its subsidiaries have therefore established a policy to assess the risks of their business operations by establishing the Risk Management Committee, which consists of four independent directors and executives, Mr. Tarakorn Angpubate as the Chairman, Mr. Somchai Trairattanapirom, Ms. Sopacha Dhumrongpiyawut, and Mr. Thitipong Techaratanayuenyong as members. They are in charge of considering and approving risk management plan, monitoring the Company's business risk assessment procedures, including the creation of preventative and corrective measures to such risks.

In 2022, the Risk Management Committee held 6 meetings to consider important matters that can be summarized as follows :

1. Risk Management Plan for 2022

The Risk Management Committee has assigned the Secretary of the Risk Management Committee to organize risk management meetings for the management of all relevant departments can present a risk management plan for consideration and approval. The risk management plan addresses all aspects of business operations, such as risk in the formulation of business strategies, operational risk, financial risk, exchange rate and interest rate fluctuations risk, the risk of procurement partners and personnel with the expertise and knowledge to support the Company's future growth, information technology risk, relationship management risks with partners and stakeholders, including risks that may affect communities and the environment, compliance risks, and corruption risk.

2. Risk Assessment and Preventive or Corrective Measures

The Risk Management Committee has considered the risk assessment factors and results in accordance with the established risk management plan for the entire organization including risks from uncontrollable external factors, such as the impact of politics, impact of volatility in both domestic and international economic conditions, as well as natural disasters and, an impact of the spread of the COVID-19 virus, which may have an impact on the achievement of the Company's business goals by specifying the level of risk from high to low and has assigned responsible persons to find ways to prevent and mitigate the effects of risks that may occur to an acceptable level in order to achieve business goals according to the established strategy.

3. Monitoring the Implementing Preventive and Risk Management Measures

The Risk Management Committee closely monitors risk management by convening quarterly meetings with related departments to acknowledge risk management results and regularly review the Company's risks. In additions, the Risk Management Committee has made additional recommendations for ensuring effective and efficient risk management by continuously developing to have a corporate culture in risk management (Risk Culture) in the future.

Based on the foregoing, the Risk Management Committee has considered that the Company has formed a risk management plan and has consistently and effectively implemented it. Internal control is sufficient and appropriate for the business, as well as accurate and complete compliance with relevant laws and regulations, in accordance with good corporate governance policy.



(Mr. Tarakorn Angpubate)
Chairman of the Risk Management Committee
February 27, 2023



8.3.2 Report of Nomination and Remuneration Committee

The Nomination and Remuneration Committee consists of three-fourths of independent directors of the Nomination and Remuneration Committee, to recruit, select and nominate persons with appropriate knowledge and qualifications to serve as directors and senior executives, including proposing remuneration policies, guidelines for remuneration and other benefits for the Board of Directors and subcommittees; as well as, high-ranking executives to be suitable for their duties and responsibilities and consistent with the Company's performance and market conditions at all times.

In 2022, the Nomination and Remuneration Committee held a total of 2 meetings in which all directors attended all meetings in order to follow up and consider important matters assigned by the Board of Directors, according to the roles and responsibilities specified in the Nomination and Remuneration Committee Charter, which can be summarized as follows :

1. Reviewed roles and responsibilities in the Nomination and Remuneration Committee Charter.
2. Reviewed policies that related to nomination and remuneration, including the following key criteria :
 - 2.1 Reviewed Skill Matrix of Board, which is a complete tool for reviewing the skills of directors, for presentation to the Board of Directors and the shareholders' meeting to consider the nomination and selection of persons with suitable qualifications to be the Company's directors.
 - 2.2 Reviewed the nomination and appointment of the Board of Directors and top executives policy and nominate qualified persons to be appointed as directors of the Company to propose to the Board of Directors for consideration.
 - 2.3 Reviewed the remuneration of all committees Policy, reviewed the remuneration structure of the directors to be consistent with the responsibilities and duties of the directors, by comparing with reference to other companies in the same industry, including the survey results of directors' remuneration of the Thai Institute of Directors Association (IOD).
 - 2.4 Reviewed the succession plan policy.

- 2.5 Reviewed remuneration and welfare for executives and employees policy.

2.5.1 Considered from the criteria for adjusting the annual salary and bonus in accordance with and reflecting the actual performance, suitable for economic conditions and industry trends.

- 2.6 Self-assessment of the Nomination and Remuneration Committee as a group for the year 2022

The Nomination and Remuneration Committee has consistently reported the results of every meeting to the Board of Directors. In 2022, the Nomination and Remuneration Committee completed all tasks assigned with duly care, prudence, and to the best of its ability; as well as, providing straightforward opinions in the best interests of shareholders and all stakeholders and is committed to operating under the principles of equity, fairness, and transparency in accordance with the principles of good corporate governance as stipulated by the Securities and Exchange Commission and the Stock Exchange of Thailand and to be accepted internationally.



(Police Major General Visit Sukarasep)

Chairman of the Nomination and Remuneration Committee

February 27, 2023

8.3.3 Report of the Good Corporate Governance and Sustainable Development Committee

The Good Corporate Governance and Sustainable Development Committee consists of 3 independent directors, namely Mr. Somchai Trairattanapirom, as the Chairman of the Good Corporate Governance and Sustainable Development Committee, Dr. Chongrak Rarueysong, and Mr. Pongtep Thithapand, as Members of the Good Corporate Governance and Sustainable Development Committee.

In 2022, the Good Corporate Governance and Sustainable Development Committee held a total of 4 meetings as planned to follow the principles of good corporate governance and in accordance with the principles of good corporate governance of the Securities and Exchange Commission (SEC), recommendations from the Corporate Governance Assessment Report of the Thai Institute of Directors Association (IOD), and ASEAN Corporate Governance Scorecard according to the international principles of the Organization for Economic Co-operation and Development (OECD), including sustainability management, and a framework for the Anti-corruption guidelines established by the Company. The key points can be summarized as follows :

1. Supervision to be in compliance with laws, rules and regulations, as well as best practice

- 1) To supervise, review, amend, and improve policies and practices on good corporate governance in order to comply with the revised regulations on corporate governance of listed companies in 4 categories; Rights of Shareholders and Equitable Treatment of Shareholders, Roles of Stakeholders and Business Development for Sustainability, Disclosure and Transparency, and the Responsibilities of the Board of Directors, as well as anti-corruption measures and practices that are up-to-date and in accordance with international guidelines, current situation and business operations of the Company.
- 2) To ensure that shareholders are treated equally, and to provide shareholders with the opportunity to propose agendas and nominate candidates for election as directors of the Company in advance between November 15, 2022 and January 31, 2023, in accordance with the rules outlined on the Company's website.
- 3) To supervise and provide recommendations on the organizing of the 2022 Annual General Meeting of Shareholders from the pre-meeting process, on the day of the meeting and after the meeting in order to organize the meetings both transparent and efficient.
- 4) To supervise the directors and managements in preparing and submitting a report on stock holdings in order to meet the specified criteria, including report to the Good Corporate Governance and Sustainable Development Committee on a quarterly basis.
- 5) To supervise the use of inside information (Insider Trading) from the level of directors, managements, staffs, employees, to the operation level, with transparency as the primary concern.



2. Supervision of operations for sustainable development

- 1) To determine and prepare policies that will benefit the organization's sustainable development which includes commenting on policies developed or reviewed by other responsible committees in order to be consistent with good corporate governance practices.
- 2) To supervise business operations with concrete responsibility to stakeholders in accordance with the principles of good corporate governance by providing advice and continuously monitoring operating results through report presentation. It is also necessary to assess the level of confidence of various stakeholder groups in the Company's business operations in accordance with the principles of good corporate governance in order to plan the response to the expectations of each stakeholder group.
- 3) To follow up, supervise, and provide advice on the Company's sustainable development operations to ensure the adherence to international standards, including reviewing all elements of the Company's sustainability framework in light of the rapidly changing global social situation and challenges.
- 4) To consider disclosing information on sustainability operations with the intent of informing all stakeholders. This includes topics such as the environment, society, and governance (Environmental, Social, and Governance : ESG) in the Sustainability Report section of the Annual Registration Statement/ Annual Report 2022 (Form 56-1 One Report).



3. Promotion of compliance with good corporate governance policies and business ethics

- 1) To consider and approve the review of the Company's policies in accordance with the SEC's good corporate governance policy and business ethics, as well as recommendations from the IOD's Corporate Governance Assessment Report.
- 2) To consider and approve the review of anti-corruption policies and whistleblowing or complaints, manage to educate people involved, and implement corruption risk assessment for Company personnel, including following up on various related reports.
- 3) To consider disclosing reports on compliance with good corporate governance in the form 56-1 One Report to ensure that information is fully disclosed and in accordance with good corporate governance guidelines.

4. Director performance reporting, evaluation, and development

- 1) To consider reviewing the Good Corporate Governance and Sustainable Development Committee's Charter and participating in the review of the Board of Directors Charter, the Executive Committee Charter, and the Company Secretary Charter, as well as to follow up on the review of the Charters of other sub-committees to be in line with and in accordance with good corporate governance principles.
- 2) To improve the Good Corporate Governance and Sustainable Development Committee's self-assessment process and criteria for the year 2022 to be up-to-date and consistent with the current situation in accordance with international guidelines, as well as making suggestions to improve the process and criteria in the Board of Directors' and Executive Committee's self-assessment forms, including the Chief Executive Officer assessment form.
- 3) To report the Good Corporate Governance and Sustainable Development Committee's performance to the Board of Directors on a quarterly basis, as well as the results of the Good Corporate Governance and Sustainable Development Committee's self-assessment for the year 2022 to the Board of Directors' meeting, including disclosure in the form 56-1 One Report.
- 4) To continuously monitor and supervise directors' development in accordance with good corporate governance principles by encouraging directors to attend training courses offered by the Thai Institute of Directors Association (IOD) and other organizations.

The Company's commitment to implementing the principles of good corporate governance into concrete operations throughout the organization has resulted in the Company receiving an evaluation from the Good Corporate Governance Report of Thai Listed Companies (CGR) Project in 2022 at an excellent level of 97 points, which the Company has been rated in the "Excellent" category for 6 consecutive years and the Company was also awarded the ASEAN Asset Class PLCs. This award is given to ASEAN listed companies that score 97.50 points or more, as a Thai listed company that has been assessed according to the 2021 ASEAN CG Scorecard criteria.

The Company has also received an excellent score of 100 from the Thai Investors Association (TIA) for the fourth year in a row for the 2022 Annual General Meeting of Shareholders as a result of the Company placing importance on the rights of shareholders and stakeholders as the top priority in the Company's business operations. The results of these assessments demonstrate the Company's ongoing commitment to good corporate governance practices.

Furthermore, the Company places a high value on anti-corruption measures. Since 2017, the Company has been a member of the Private Sector Collective Action Coalition Against Corruption (CAC), and it has been certified as a member of the CAC for the second consecutive term in 2020.

The Corporate Governance and Sustainable Development Committee recognizes that good corporate governance is critical to the Company's business operations, as well as to shareholders and all stakeholders. As a result, the Corporate Governance and Sustainable Development Committee is committed to presenting guidelines and providing advice on good corporate governance to the Board of Directors and management as a guideline for the Company's operations to be managed with efficiency and effectiveness, be transparent and inspectable, and provide continuous and sustainable growth to the Company.

(Mr. Somchai Trairattanapirom)
Chairman of the Good Corporate Governance and
Sustainable Development Committee
February 27, 2023



8.3.4 Report of the Executive Committee

For the year 2022, it was the year that the global economy began to recover from the COVID-19 epidemic situation after a major outbreak since 2020, and although the global economy tends to recover from COVID-19, it is considered that the world economy in this year still faced a difficult situation, volatility and uncertainty, regardless of the war situation between Russia and Ukraine turmoil in the crypto market, etc. In which the Company has followed up and prepared measures to cope with the volatility of the global economy and finances; as well as, monitored economic instability in countries with weak economic fundamentals that may affect the global economy in general through the operations of the Company's Executive Committee.

In 2022, the Executive Committee held 29 meetings to consider important matters of the Company in accordance with the framework assigned by the Board of Directors and reported the meeting result together with guidelines for solving problems and adjusting strategies to suit each period. The recommendations have been presented to the Board of Directors for proper and consistent consideration which can be summarized as follows;

1. Considered and formulated business plans and strategies in line with vision, mission, and corporate culture of the year 2022.

The Executive Committee has established strategies and operating plans of the Company, subsidiaries, and associated companies in each business line annually, and follow-up on monthly and quarterly basis. Furthermore, such plans have been distributed to managements and staff at all levels of the business for them to acknowledge and implement in line with the established goals.

2. Reviewed the approval authority and budget for the Company's operations for the year 2022.

The Executive Committee has reviewed to amend the approval authority table to be consistent with the situation and business operations of the Company including considering the budget for the Company's business operations while taking into account the continuous growth of the Company before presenting to the Board of Directors for further consideration and approval.

3. Examined and monitored on the performance of the Company, subsidiaries, and associated companies.

The Executive Committee has examined and followed up on the performance of all business lines on a monthly basis to execute the plan and as assigned by the Board of Directors.

4. Considered and endorsed related party transactions, transactions that may have conflicts of interest, or conflict of interest transactions in accordance with the Company's Articles of Association or applicable legislation.

The Executive Committee has considered and endorsed the above mentioned transactions as specified in the Company's Articles of Association, policies, regulations and the announcement of the Capital Market Supervisory Board. The approval of such transactions must be submitted to the Board of Directors' meeting and/or the shareholders' meeting to consider and approve according to the Company's Articles of Association or related laws.

5. Considered and approved investments both domestically and internationally, participating in bidding for new projects and joint ventures with business partners.



The Executive Committee has scrutinized, endorsed, or approved the investments and/or bidding on new projects, as well as undertaking various projects, especially the signing of a cooperation agreement on investment and development of renewable energy projects. This business cooperation is to increase the joint venture's potential in operating renewable energy businesses, which is in line with the National Energy Plan framework that focuses on increasing the proportion of electricity generation from renewable energy in order to achieve the goal of carbon neutrality (Carbon Neutral) by 2050. The principle of consideration is to assess the benefits of the Company, shareholders and all stakeholders equally before presenting to the Board of Directors for further consideration.

The Executive Committee is confident that the Company will be able to maintain a growth rate of at least 15% in 2023 as the target. This would be the Company's continuous growth for more than 10 years since being listed on the Stock Exchange of Thailand. This is due to the Company's readiness in terms of investment capital, executive's credentials, talents, personal experience as well as the Company's employees. Moreover, the Company is a market leader in integrated renewable energy and power systems business, with leading technology that can be used to develop sustainable infrastructure in accordance with government directive policies. The Company is also extending its operations into hemp/ cannabis-related business since the Company foresee good short and long-term profits. The Company is ready and advantageous to invest in this project in many ways. Furthermore, the Company places a premium on operating the business in the best interests of the Company, its shareholders, and all stakeholders by ensuring that the Company is prepared and has an operating system that follows legal and ethical principles in accordance with good corporate governance principles in order to guide the organization toward stable and sustainable growth.

(Ms. Sopacha Dhumrongpiyawut)
Chairman of the Executive Committee
February 27, 2023



9. Internal Control and Related Party Transactions

9.1 Internal control

9.1.1 Opinion of the Board of Directors on the Company's Internal Control System

The Board of Directors recognizes the significances of the internal control of the Company and subsidiaries. This enables the Company to achieve key strategic and operational goals with greater efficiency and effectiveness. Financial reporting and other important reports are accurate and reliable, and they are in accordance with applicable laws and regulations. Several procedures have been implemented concisely to assist the Company in achieving its objectives, established strategy, and sustainable growth.

The Board of Directors has assigned the Audit Committee, comprised of 3 Independent Directors, who are responsible for reviewing and evaluating the adequacy of the internal control system provided by the management by adhering to a good internal control system based on the integrated internal control framework or COSO Internal Control - Integrated Framework 2013 (COSO 2013) of The Committee of Sponsoring Organizations of the Treadway Commission Framework, as well as conducting internal audits to ensure that the operation is efficient and effective on a checks and balances basis. The use and protection of the Company's assets, as well as stakeholder investments, are closely monitored for the Company's benefit. The Internal Audit Department's audit results and the auditor's opinion on the Company's internal control system have been carefully considered.

The Board of Directors meeting No. 2/2023 on 27 February 2023, attended by 4 Independent Directors, 3 of whom are Audit Committee members, the management and internal auditor jointly assessed the Company's and its subsidiaries' internal control systems using the Securities and Exchange Commission (SEC)'s internal control system sufficiency assessment form. According to the results of the assessment of the internal control system of the Company and its subsidiaries in 5 sub-components; Control Environment, Risk Assessment, Control Activities, Information & Communication and Monitoring Activities, the Board of Directors views that the Company's internal control system, is adequate, appropriate, and has been continuously practiced. In 2022, the results of internal control activities can be summarized as follows :

1. Control Environment

The Company's goals, visions, objectives, policies, and guidelines are all clearly defined. The Company follows the principles of good corporate governance and business ethics. The policy of good corporate governance and business ethics has been documented. This defines the roles, duties, and responsibilities of the Board of Directors, including establishment of work policies, employee handbook, organizational structure, and a regular review of organizational structure to ensure that it is appropriate. The Company has established the approval authority to operate according to the hierarchy in order to be in line with the strategy, action plan, and support the growth of the business. Approval of important business transactions of the Company has been decentralized from top management to the level by specifying the type of transaction and the approval limit in writing with checks and balances, causing management to be efficient, flexible, appropriate, and in line with business conditions. In addition, important policies, such as the Charter of the Board of Directors and sub-committees, are reviewed and amended on a regular basis to ensure compliance with the Securities and Exchange Commission's good corporate governance principles.

The Company is committed to conducting business with integrity as it is a member of the Private Sector Collective Action Coalition Against Corruption since 2017. The Company complies with the anti-corruption policy specified by the Company and emphasizing employees to understand the issue of fraud risk by providing measures for whistleblowing or complaints against illegal actions, codes of conduct, or behavior that may imply corruption or misconduct of persons in the group, both employees and stakeholders, including the protection of informants, which is considered part of the said policy in order to establish channels for reporting complaints and a guideline for receiving information, keeping information confidential, protecting informants, fact-finding and punishing offenders.

2. Risk Assessment

The Board of Directors places a high value on corporate risk management by appointing the Risk Management Committee (RMC) to determine and review the enterprise risk management framework policy, which includes supervision, support for risk management implementation, and internal control in the organization. They have implemented a risk management plan, system, or risk management process to mitigate the impact on the Company's operations, as well as monitoring and evaluating the organization's risk management framework's implementation. This is to encourage the regular improvement and development of the internal risk management system, as well as to ensure that the Company has adequate and appropriate internal control and risk management in accordance with the organization's strategy and business goals.



The Audit Committee recognizes the importance of an internal control system that is both appropriate and effective in preventing and managing significant risks by approving the annual internal audit plan, in which the Company's Internal Audit Department has prepared a Risk-Based Audit plan to ensure that the internal control system is adequate and sufficient for current risk management.

3. Control Activities

The Company has control over the operations of the Group and subsidiaries by planning and controlling, such as the use of key performance indicators (KPIs), the clear separation of duties and responsibility, and the delegation of approval authority. This includes the line of authority (LOA) for each level of business operations. Including the use of an electronic document management system to help control the transaction's approval correctly. Including monitoring the operations of subsidiaries/ associated companies by appointing executives to be directors in subsidiaries/ associated companies to participate in policy formulation, receiving information and following up on performance, with care to protect the Company's assets from loss or misuse, and the audit of the internal control system from the internal audit department and the auditor every year. Including the company secretary who is responsible for ensuring that the operations of the business group and the board of directors, and the disclosure of information, are in compliance with the Securities and Exchange Act, the regulations of SEC and related laws.

The Company has set guidelines for related transactions or transactions that may have conflicts of interest by considering transactions as if they were transactions with third parties, which stipulates that such transactions must have fair trading conditions and do not cause a transfer of benefits, by considering the best interests of the shareholders and stakeholders of the Company is important. Including disclosure of such transaction information in accordance with the regulations of the Securities and Exchange Commission.

The Company assigns the Information Technology Department to be responsible for the appropriate and efficient security management of the information technology system, with a review and improvement of policies and requirements for the security of information technology systems, including surveillance systems for abnormal events with the nature of threats, anti-malware systems, firewall system, including communicating to employees about information technology security requirements; as well as, ways to prevent threats in information technology.

The Company has complied with the Personal Data Protection Act (PDPA) of Thailand. The Board of Directors and the management has set policies and guidelines. A working group was established as well as considering having a Data Protection Officer and implementing an Electronic Document Management System to use to manage tracking personal data subject, along with communication about personal data use and storage to prevent information leakage for all executives and employees to understand the importance and strictly follow the law.

4. Information & Communication

The Company places an importance on information and communication quality. This is a critical component in enabling internal control to function successfully. With proper and appropriate design of general information technology controls, the Company set guidelines for information management. Every work system, in daily work and for other purposes, is supported by a database provided by the Company. The accuracy and security of the information in such a database are regularly checked and updated. The Company has internal information communication methods and channels that are appropriate and effective, such as public relations, electronic mail, the reporting process and activities, and so on. Furthermore, in accordance with the Company's good corporate governance policy, the Board of Directors has provided sufficient, reliable, and timely disclosure of the Company's information in both financial and non-financial matters for shareholders and stakeholders to receive information equally, as well as having an Investor Relations Department responsible for providing information to investors and the general public. Quarterly investor and analyst meetings, as well as press releases to the media, are held. According to the Company's whistle blowing and protection policy, there is also a guideline and channels for complaints.

5. Monitoring Activities

The Company has reviewed the internal control system and monitored the operating results. Operating outcomes are compared to plans to ensure that the goals put forth are constantly met, as well as assessing the reasons if actual performance does not reach the plans or the defined criteria. The results are regularly presented to the executives, the Audit Committee, and Board of Directors. In addition, the Company's Internal Audit Department has an annual audit plan that considers significant risks, an increase in the number of projects, processes, or systems, and requests from executives and/or the Audit Committee to review the adequacy and appropriateness of each activity of internal control system. There has been a discussion with the management about methods to strengthen the internal control system in order to improve its efficiency and effectiveness. Throughout 2022, the Internal Audit Department has submitted the results of the audits to the Audit Committee and the Company's executives on a regular basis, in accordance with the internal control audit plan.

The Company's auditor is KPMG Phoomchai Audit Ltd., who is the auditor of quarterly financial information and annual financial statements for 2022, by reviewing the accounting internal control system (to determine the guidelines, time period, scope and inspection methods). The auditor did not find any deficiencies in the internal control system that affected the preparation of the financial statements.



9.1.2 Opinion of the Audit Committee on the Internal Control System

The Audit Committee has examined the adequacy of the Company's internal control system. There is no opinion that differs from the opinion of the Board of Directors.

9.1.3 Opinion of the Audit Committee on the Head of the Internal Audit Department of the Company

The Audit Committee meeting No. 4/2016 appointed Mr. Tanetsiri Fakmitr, Director of Internal Audit Division, as the Head of the Company's Internal Audit and as the Secretary to the Audit Committee, effective from October 20, 2016. Mr. Tanetsiri Fakmitr has internal auditing experience. He is a Certified Public Accountant (CPA) with extensive management expertise in the Internal Audit. As a result, the Audit Committee believes it is suitable for him to carry out these responsibilities effectively and adequately. The Company discloses the Head of Internal Audit's profile, training history and experience in the Attachment 3.

9.1.4 Appointment, Removal and Transfer Head of the Internal Audit Unit

In this regard, the consideration and approval of the appointment, removal, or transfer of the Head of the Internal Audit of the Company must be approved or endorsed by the Audit Committee.

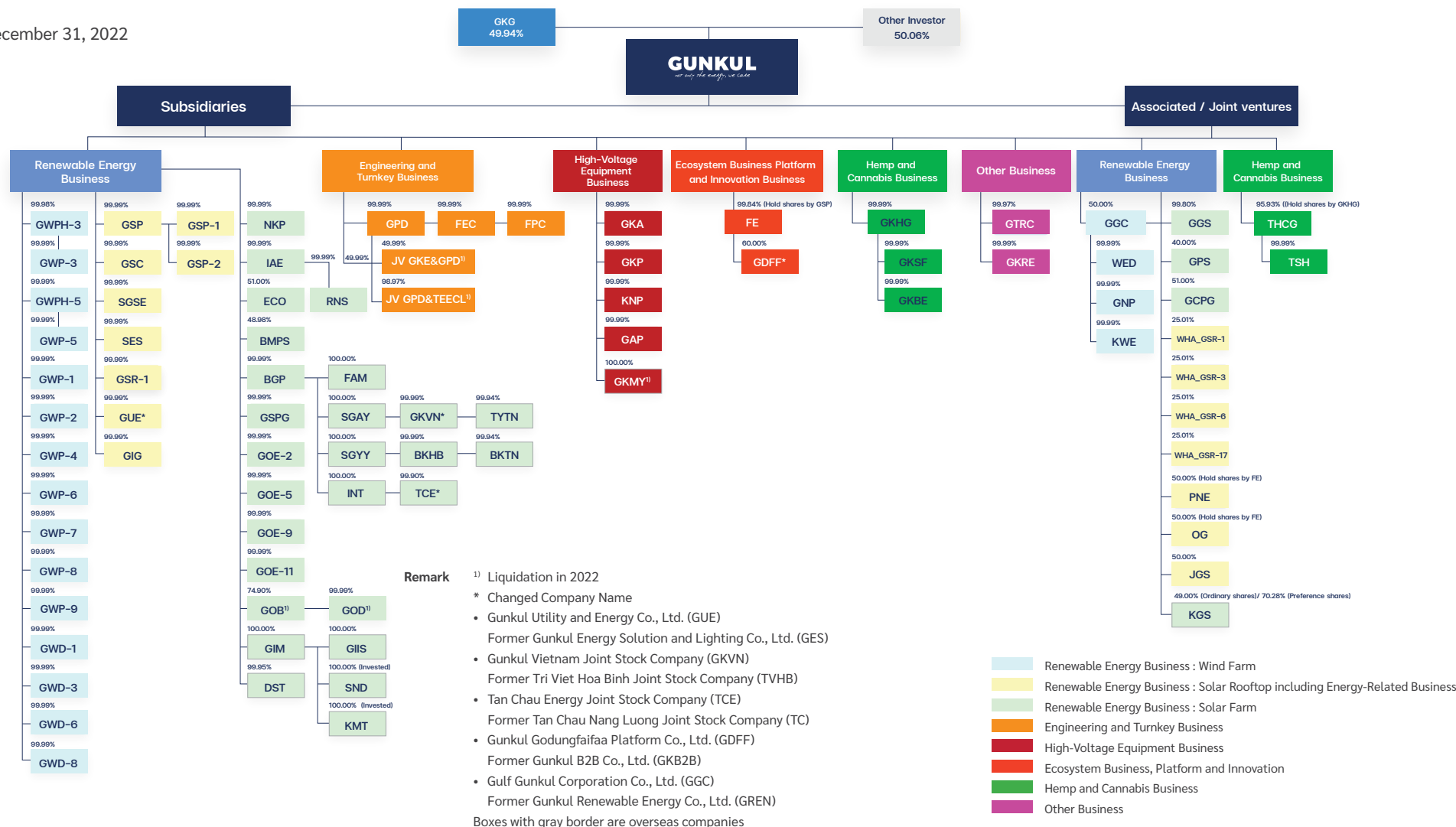


9.2 Related Party Transactions

Proportion of shareholding in subsidiaries and associated companies

Related party transactions between the Company, subsidiaries and associated companies occurred in line with normal course of business, and were beneficial for the Company's operations. In addition, the Company has a proportion of shareholding in subsidiaries and associated companies as follows :

As of December 31, 2022



Therefore, the related party transactions between the Company, subsidiaries and associated companies shall not cause any conflict of interest in the future.



9.2.1 Related Party Transactions with Possible Conflict of Interest Persons as of December 31, 2022

(1) Summary of relationship between the Company, subsidiaries, associated companies, and/or relevant persons

Subsidiaries

Company	Symbol	Type of Business	Type of shares	GUNKUL Shareholding (%)	Relationship			
					Persons who are Director/ Shareholder together with GUNKUL ^{1) 2)}	Director in subsidiaries	Shareholder in subsidiaries	Shareholding in subsidiaries (%)
Renewable Energy Business Group								
1. G Wind Power Holding 3 Co., Ltd.	GWPH-3	Electricity generation	Ordinary shares	99.98	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.008 0.008
2. G Wind Power Holding 5 Co., Ltd.	GWPH-5	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.005 0.005
3. Gunkul Wind Power 1 Co., Ltd.	GWP-1	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.002 0.002
4. Gunkul Wind Power 2 Co., Ltd.	GWP-2	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.002 0.002
5. Gunkul Wind Power 3 Co., Ltd.	GWP-3	Electricity generation	Ordinary shares	99.99 (Share Hold by GWPH-3)	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.00002 0.00002
6. Gunkul Wind Power 4 Co., Ltd.	GWP-4	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.002 0.002
7. Gunkul Wind Power 5 Co., Ltd.	GWP-5	Electricity generation	Ordinary shares	99.99 (Share Hold by GWPH-5)	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.00002 0.00002
8. Gunkul Wind Power 6 Co., Ltd.	GWP-6	Electricity generation	Ordinary shares	99.99	Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut Mrs. Areewan Chaloemdan	✓ ✓ ✓	✓ ✓ -	0.0017 0.0017 -
9. Gunkul Wind Power 7 Co., Ltd.	GWP-7	Electricity generation	Ordinary shares	99.99	Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut Mrs. Areewan Chaloemdan	✓ ✓ ✓	✓ ✓ -	0.0017 0.0017 -
10. Gunkul Wind Power 8 Co., Ltd.	GWP-8	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.002 0.002



Company	Symbol	Type of Business	Type of shares	GUNKUL Shareholding (%)	Relationship			
					Persons who are Director/ Shareholder together with GUNKUL ^{1) 2)}	Director in subsidiaries	Shareholder in subsidiaries	Shareholding in subsidiaries (%)
11. Gunkul Wind Power 9 Co., Ltd.	GWP-9	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut	✓	✓	0.002
					Dr. Soomboon Aueatchasai	✓	✓	0.002
12. Gunkul Wind Development 1 Co., Ltd.	GWD-1	Electricity generation	Ordinary shares	99.99	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.00002
13. Gunkul Wind Development 3 Co., Ltd.	GWD-3	Electricity generation	Ordinary shares	99.99	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.00002
14. Gunkul Wind Development 6 Co., Ltd.	GWD-6	Electricity generation	Ordinary shares	99.99	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.00002
15. Gunkul Wind Development 8 Co., Ltd.	GWD-8	Electricity generation	Ordinary shares	99.99	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.00002
16. NKP Power Solar Co., Ltd.	NKP	Electricity generation	Ordinary shares and Preference shares	99.99	Ms. Sopacha Dhumrongpiyawut	✓	✓	0.0038
					Dr. Soomboon Aueatchasai	✓	-	-
17. Infinite Alternative Energy Co., Ltd.	IAE	Invest in electricity generation business company	Ordinary shares	99.99	Dr. Soomboon Aueatchasai	✓	-	-
					Ms. Naruechon Dhumrongpiyawut	✓	✓	0.000006
18. Rang Ngern Solution Co., Ltd.	RNS	Electricity generation	Ordinary shares	99.99	Dr. Soomboon Aueatchasai	✓	-	-
				(Share Hold by IAE)	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.000007
19. Eco Thai Energy Co., Ltd.	ECO	Electricity generation	Ordinary shares	51.00	Dr. Soomboon Aueatchasai	✓	-	-
					Ms. Naruechon Dhumrongpiyawut	✓	-	-
20. BMP Solar Co., Ltd.	BMPS	Electricity generation	Preference shares	48.98	Ms. Naruechon Dhumrongpiyawut	✓	-	-
21. Gunkul Solar Power Co., Ltd.	GSP	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut	✓	✓	0.00002
					Dr. Soomboon Aueatchasai	-	✓	0.00002
22. Gunkul Solar Power 1 Co., Ltd.	GSP-1	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut	✓	✓	0.0001
				(Share Hold by GSP)	Dr. Soomboon Aueatchasai	-	✓	0.0001
23. Gunkul Solar Power 2 Co., Ltd.	GSP-2	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut	✓	✓	0.0001
				(Share Hold by GSP)	Dr. Soomboon Aueatchasai	-	✓	0.0001
24. Gunkul Solar Community Co., Ltd.	GSC	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut	✓	✓	0.0005
					Dr. Soomboon Aueatchasai	✓	✓	0.0005
					Ms. Naruechon Dhumrongpiyawut	✓	✓	0.0005
25. Siam Gunkul Solar Energy Co., Ltd.	SGSE	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut	✓	✓	0.0002
					Dr. Soomboon Aueatchasai	-	✓	0.0002



Company	Symbol	Type of Business	Type of shares	GUNKUL Shareholding (%)	Relationship			
					Persons who are Director/ Shareholder together with GUNKUL ^{1) 2)}	Director in subsidiaries	Shareholder in subsidiaries	Shareholding in subsidiaries (%)
26. Solar Energy Society Co., Ltd.	SES	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	- - -	- - -
27. Gunkul Solar Roof 1 Co., Ltd.	GSR-1	Electricity generation	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.0005 0.0005
28. Gunkul Utility and Energy Co., Ltd. (Former : Gunkul Energy Solution and Lighting Co., Ltd. “GES”)	GUE	Electricity generation	Ordinary shares	99.99	Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut	✓ ✓	✓ ✓	0.0001 0.0001
29. Gunkul Infinite Group Co., Ltd.	GIG	Rent, sublease, and property management, including generate electricity	Ordinary shares	99.99	Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut	✓ ✓	✓ -	0.00003 -
30. Bright Green Power Co., Ltd.	BGP	Electricity generation and invest in companies that generate electricity	Ordinary shares	99.99	-	-	-	-
31. Gunkul Solar Powergen Co., Ltd.	GSPG	Electricity generation	Ordinary shares	99.99	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.00001
32. Gunkul One Energy 2 Co., Ltd.	GOE-2	Electricity generation	Ordinary shares	99.99	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.00002
33. Gunkul One Energy 5 Co., Ltd.	GOE-5	Electricity generation	Ordinary shares	99.99	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.0001
34. Gunkul One Energy 9 Co., Ltd.	GOE-9	Electricity generation	Ordinary shares	99.99	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.00001
35. Gunkul One Energy 11 Co., Ltd.	GOE-11	Electricity generation	Ordinary shares	99.99	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.00002
36. GO Bio Energy Co., Ltd. (Registered liquidation in 2022)	GOB	Invest in companies that generate electricity	Ordinary shares	74.90	Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut	✓ ✓	- -	- -
37. Outgrow D Co., Ltd. (Registered liquidation in 2022)	OGD	Electricity generation	Ordinary shares	99.99 (Share Hold by GOB)	Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut	✓ ✓	- -	- -
38. Gunkul International (Mauritius)	GIM	Overseas Investment	Ordinary shares	100.00	-	-	-	-
39. Gunkul International Investment (Singapore) Pte. Ltd.	GIIS	Overseas Investment	Ordinary shares	100.00 (Share Hold by GIM)	Ms. Naruechon Dhumrongpiyawut	✓	-	-
40. Sendai Okura GD Daiichi Godo Kaisha	SND	Electricity generation	-	Investment proportion 100.00 (Invested by GIM, BGP)	-	-	-	-



Company	Symbol	Type of Business	Type of shares	GUNKUL Shareholding (%)	Relationship			
					Persons who are Director/ Shareholder together with GUNKUL ^{1) 2)}	Director in subsidiaries	Shareholder in subsidiaries	Shareholding in subsidiaries (%)
41. Kimitsu Mega Solar Godo Kaisha	KMT	Electricity generation	-	Investment proportion 100.00 (Invested by GIM, BGP)	-	-	-	-
42. Future Asset Management Kabushiki Kaisha	FAM	Invest in companies that generate electricity	Ordinary shares	100.00 (Share Hold by BGP)	-	-	-	-
43. Singapore An Yang Pte. Ltd.	SGAY	Overseas Investment	Ordinary shares	100.00 (Share Hold by BGP)	Ms. Naruechon Dhumrongpiyawut	✓	-	-
44. Singapore Yun Yang Pte. Ltd.	SGYY	Overseas Investment	Ordinary shares	100.00 (Share Hold by BGP)	Ms. Naruechon Dhumrongpiyawut	✓	-	-
45. Gunkul Vietnam Joint Stock Company (Former : Tri Viet Hoa Binh Joint Stock Company “TVHB”)	GKVN	Overseas Investment	Ordinary shares	99.99 (Share Hold by SGAY)	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.000000003
46. Tri Viet Tay Ninh Joint Stock Company	TVTN	Electricity generation	Ordinary shares	99.94 (Share Hold by GKVN)	Ms. Naruechon Dhumrongpiyawut	✓	-	-
47. Bach Khoa A Chau Hoa Binh Joint Stock Company	BKHB	Overseas Investment	Ordinary shares	99.99 (Share Hold by SGYY)	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.000000003
48. Bach Khoa A Chau Tay Ninh Joint Stock Company	BKTN	Electricity generation	Ordinary shares	99.94 (Share Hold by BKHB)	Ms. Naruechon Dhumrongpiyawut	✓	-	-
49. Doan Son Thuy Investment Joint Stock Company	DST	Electricity generation	Ordinary shares	99.95	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.002
50. INT Energy Pte. Ltd.	INT	Oversea Investment	Ordinary shares	100.00 (Share Hold by BGP)	Ms. Naruechon Dhumrongpiyawut	✓	-	-
51. Tan Chau Energy Joint Stock Company (Former : Tan Chau Nang Luong Joint Stock Company (“TC”))	TCE	Electricity generation	Ordinary shares	99.90 (Share Hold by INT)	Ms. Naruechon Dhumrongpiyawut	✓	-	-
Engineering and Turnkey Business Group								
52. Gunkul Power Development Co., Ltd.	GPD	Engineering and Turnkey	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.00003 0.00003
53. Future Electrical Control Co., Ltd.	FEC	Engineering and Turnkey	Ordinary shares	99.99 (Share Hold by GPD)	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.00001 0.00001



Company	Symbol	Type of Business	Type of shares	GUNKUL Shareholding (%)	Relationship			
					Persons who are Director/ Shareholder together with GUNKUL ^{1) 2)}	Director in subsidiaries	Shareholder in subsidiaries	Shareholding in subsidiaries (%)
54. Joint Venture GKE&GPD Co., Ltd. (Registered liquidation in 2022)	JV_GKE - GPD	Engineering and Turnkey	Ordinary shares	49.99	Ms. Sopacha Dhumrongpiyawut	✓	✓	0.0001
				(Share Hold by GUNKUL)	Dr. Soomboon Aueatchasai	-	✓	0.0001
				49.99 (Share Hold by GPD)				
55. Joint Venture GPD & TEECL Co., Ltd.	JV_GPD - TEECL	Engineering and Turnkey	Ordinary shares	98.97	Ms. Sopacha Dhumrongpiyawut	✓	✓	0.0101
				(Share Hold by GPD)	Dr. Soomboon Aueatchasai	-	✓	0.0101
56. Future Power Construction Co., Ltd.	FPC	Engineering and Turnkey	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut	✓	✓	0.002
				(Share Hold by FEC)	Dr. Soomboon Aueatchasai	-	✓	0.002
High-Voltage Equipment Business Group								
57. G.K. Assembly Co., Ltd.	GKA	Manufacture equipment for electrical systems	Ordinary shares	99.99	Dr. Gunkul Dhumrongpiyawut	-	✓	0.00005
					Ms. Sopacha Dhumrongpiyawut	✓	✓	0.00005
					Mrs. Areewan Chaloeindan	✓	-	-
					Mr. Chaloeinpon Sricharoen	✓	-	-
58. G.K.Power Products Co., Ltd.	GKP	Manufacture equipment for electrical systems	Ordinary shares	99.99	Dr. Gunkul Dhumrongpiyawut	-	✓	0.001
					Ms. Sopacha Dhumrongpiyawut	✓	✓	0.001
					Mrs. Areewan Chaloeindan	✓	-	-
					Mr. Chaloeinpon Sricharoen	✓	-	-
59. K.N.P. Supply Co., Ltd.	KNP	Distribute equipment for electrical systems	Ordinary shares	99.99	Dr. Gunkul Dhumrongpiyawut	-	✓	0.00005
					Ms. Sopacha Dhumrongpiyawut	✓	✓	0.00005
					Dr. Somboon Aueatchasai	✓	-	-
					Mrs. Areewan Chaloeindan	✓	-	-
					Mr. Chaloeinpon Sricharoen	✓	-	-
60. GAP Supply Co., Ltd.	GAP	Distribute equipment for electrical systems	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut	✓	✓	0.001
					Dr. Somboon Aueatchasai	✓	✓	0.001
					Mrs. Areewan Chaloeindan	✓	✓	0.001
					Mr. Chaloeinpon Sricharoen	✓	-	-
61. Gunkul Engineering (Myanmar) Company Limited (Registered liquidation in 2022)	GKMY	Overseas Investment	Ordinary shares	100.00	Ms. Sopacha Dhumrongpiyawut	✓	-	-
					Dr. Soomboon Aueatchasai	✓	-	-



Company	Symbol	Type of Business	Type of shares	GUNKUL Shareholding (%)	Relationship			
					Persons who are Director/ Shareholder together with GUNKUL ^{1) 2)}	Director in subsidiaries	Shareholder in subsidiaries	Shareholding in subsidiaries (%)
Ecosystem Business Platform and Innovation Business Group								
62. Future Energy Corporation Co., Ltd.	FE	Application platforms and computer programs services	Ordinary shares	99.84 (Share Hold by GSP)	Ms. Naruechon Dhumrongpiyawut	✓	-	-
63. Gunkul Godungfaifaa Platform Co., Ltd. (Former : Gunkul B2B Co., Ltd. “GKB2B”)	GDFB	Application platforms and computer programs services	Ordinary shares	60.00 (Share Hold by FE)	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.0002
Hemp and Cannabis Business Group								
64. G.K. Hemp Group Co., Ltd.	GKHG	Invest in companies that operate hemp and cannabis business	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.00002 0.00002
65. G.K. Smart Farming Co., Ltd.	GKSF	Hemp and Cannabis Business	Ordinary shares	99.99 (Share Hold by GKHG)	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.00005 0.00005
66. G.K. Bio Extraction Co., Ltd.	GKBE	Hemp and Cannabis Business	Ordinary shares	99.99 (Share Hold by GKHG)	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.00005 0.00005
Other Businesses								
67. Gunkul Training Center Co., Ltd.	GTRC	Educational, seminar management, and training management services	Ordinary shares	99.97	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.1000 0.1000
68. G.K. Real Estate (2564) Co., Ltd.	GKRE	Real estate business	Ordinary shares	99.99	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ ✓	0.00017 0.00017



Associated Companies/ Joint Ventures

Company	Symbol	Type of Business	Type of shares	GUNKUL Shareholding (%)	Relationship			
					Persons who are Director/ Shareholder together with GUNKUL ^{1) 2)}	Director in subsidiaries	Shareholder in subsidiaries	Shareholding in subsidiaries (%)
Renewable Energy Business Group								
1. Gulf Gunkul Corporation Co., Ltd. (Former : Gunkul Renewable Energy Co., Ltd. “GREN”)	GGC	Invest in companies that generate electricity	Ordinary shares	50.00	Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut	✓ ✓	- ✓	- 0.000004
2. Wind Energy Development Co., Ltd.	WED	Electricity generation	Ordinary shares	99.99 (Share Hold by GGC)	Dr. Gunkul Dhumrongpiyawut Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut	- ✓ ✓	✓ - ✓	0.000008 - 0.0000006
3. Greenovation Power Co., Ltd.	GNP	Electricity generation	Ordinary shares	99.99 (Share Hold by GGC)	Ms. Naruechon Dhumrongpiyawut	✓	✓	0.0000007
4. Korat Wind Energy Co., Ltd.	KWE	Electricity generation	Ordinary shares	99.99 (Share Hold by GGC)	Ms. Sopacha Dhumrongpiyawut Dr. Soomboon Aueatchasai	✓ ✓	✓ -	0.000009 -
5. Gulf Gunkul Solar Co., Ltd.	GGs	Electricity generation	Ordinary shares	99.80 (Share Hold by GGC)	- Ms. Naruechon Dhumrongpiyawut	- -	- ✓	- 0.0100
6. G- Power Source Co., Ltd.	GPS	Electricity generation	Ordinary shares	40.00	Ms. Sopacha Dhumrongpiywaut	✓	-	-
7. Gunkul Chubu Powergen Co., Ltd.	GCPG	Electricity generation	Ordinary shares	51.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiywaut	- -	✓ ✓	0.00004 0.00002
8. WHA Gunkul Green Solar Roof 1 Co., Ltd.	WHA_GSR-1	Electricity generation	Ordinary shares	25.01	Ms. Sopacha Dhumrongpiywaut	✓	-	-
9. WHA Gunkul Green Solar Roof 3 Co., Ltd.	WHA_GSR-3	Electricity generation	Ordinary shares	25.01	Ms. Sopacha Dhumrongpiywaut	✓	-	-
10. WHA Gunkul Green Solar Roof 6 Co., Ltd.	WHA_GSR-6	Electricity generation	Ordinary shares	25.01	Ms. Sopacha Dhumrongpiywaut	✓	-	-
11. WHA Gunkul Green Solar Roof 17 Co., Ltd.	WHA_GSR-17	Electricity generation	Ordinary shares	25.01	Ms. Sopacha Dhumrongpiywaut	✓	-	-
12. Pun New Energy Co., Ltd.	PNE	Conduct business related to electric power	Ordinary shares	50.00 (Share Hold by FE)	Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut	✓ ✓	- ✓	- 0.00003



Company	Symbol	Type of Business	Type of shares	GUNKUL Shareholding (%)	Relationship			
					Persons who are Director/ Shareholder together with GUNKUL ^{1) 2)}	Director in subsidiaries	Shareholder in subsidiaries	Shareholding in subsidiaries (%)
13. Origin Gunkul Energy Co., Ltd.	OG	Conduct business related to electric power	Ordinary shares	50.00 (Share Hold by FE)	Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut	✓ ✓	- ✓	- 0.00009
14. JGS Synergy Power Co., Ltd.	JGS	Conduct business related to electric power	Ordinary shares	50.00	Ms. Naruechon Dhumrongpiyawut	✓	-	-
15. Kenyir Gunkul Solar Snd Bhd	KGS	Electricity generation	Ordinary shares and Preference shares	Ordinary shares 49.00 Preference shares 70.28	Dr. Soomboon Aueatchasai Ms. Naruechon Dhumrongpiyawut	✓ ✓	- -	- -
Hemp and Cannabis Business Group								
16. THCG Group Co., Ltd.	THCG	Hemp and Cannabis Business	Ordinary shares and Preference shares	95.93	Dr. Soomboon Aueatchasai	✓	-	-
17. Thai Stick Herb Co., Ltd.	TSH	Hemp and Cannabis Business	Ordinary shares	99.99 (Share Hold by THCG, GKHG)	Dr. Soomboon Aueatchasai	✓	-	-

Related Companies

Company	Symbol	Type of Business	Related persons shareholding ⁴⁾ (%)	Relationship		
				Persons who are Director/ Shareholder together with GUNKUL ¹⁾	Director in related companies	Shareholder in related companies
1. Gunkul Group Co., Ltd. ³⁾	GKG	Invest in companies	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut Mr. Chaloepon Sricharoen	✓ ✓ ✓ -	✓ ✓ ✓ ✓
2. Kulnatee Co., Ltd.	KNT	Marine transport in Asia region	98.00	-	-	-



Company	Symbol	Type of Business	Related persons shareholding ⁴⁾ (%)	Relationship		
				Persons who are Director/ Shareholder together with GUNKUL ¹⁾	Director in related companies	Shareholder in related companies
3. Gunkul Trading and Agency Co., Ltd.	GKT	International shipping	70.00	Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut Mr. Chaloepon Sricharoen	✓ - -	✓ ✓ ✓
4. Gunkul Marine Line Co., Ltd.	GKM	Halted the business	98.50	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut Mr. Chaloepon Sricharoen	✓ - - -	- ✓ ✓ ✓
5. Gunkul Engineering (2000) Co., Ltd. (Registered dissolution in 2021)	GK2000	Property rental	100.00	Gunkul Group Company Limited Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut	- ✓ -	✓ ✓ ✓
6. G.M. Supply & Construction Co., Ltd.	GMS	Property rental	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ - -	✓ ✓ ✓
7. Siam Future Co., Ltd. (Registered liquidation in 2022)	SF	Electricity business	99.99	Gunkul Group Company Limited Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	- ✓ ✓	✓ ✓ ✓
8. Happy Green 2558 Co., Ltd.	HPG	Invest in companies	99.98	Gunkul Group Company Limited Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	- ✓ -	✓ ✓ ✓
9. Noppakul Co., Ltd.	NPK	Movable and Immovable Property	100.00	Ms. Naruechon Dhumrongpiyawut	✓ -	✓
10. Great Miracle Assets Co., Ltd.	GMA	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓
11. Great Miracle Assets 2 Co., Ltd.	GMA-2	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓
12. Great Miracle Assets 3 Co., Ltd.	GMA-3	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓



Company	Symbol	Type of Business	Related persons shareholding ⁴⁾ (%)	Relationship		
				Persons who are Director/ Shareholder together with GUNKUL ¹⁾	Director in related companies	Shareholder in related companies
13. Great Miracle Assets 4 Co., Ltd.	GMA-4	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓
14. Great Miracle Assets 5 Co., Ltd.	GMA-5	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓
15. Great Miracle Assets 7 Co., Ltd.	GMA-7	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓
16. Great Miracle Assets 8 Co., Ltd.	GMA-8	Movable and Immovable Property	99.02	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓
17. Great Miracle Assets 9 Co., Ltd.	GMA-9	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓
18. Great Miracle Assets 10 Co., Ltd.	GMA-10	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓
19. Great Miracle Assets 11 Co., Ltd.	GMA-11	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓
20. Great Miracle Assets 12 Co., Ltd.	GMA-12	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ - -	✓ ✓ ✓
21. Great Miracle Assets 13 Co., Ltd.	GMA-13	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓
22. Great Miracle Assets 14 Co., Ltd.	GMA-14	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut Ms. Sopacha Dhumrongpiyawut Ms. Naruechon Dhumrongpiyawut	✓ ✓ ✓	✓ ✓ ✓



Company	Symbol	Type of Business	Related persons shareholding ⁴⁾ (%)	Relationship		
				Persons who are Director/ Shareholder together with GUNKUL ¹⁾	Director in related companies	Shareholder in related companies
23. Prانبuri Boulevard Co., Ltd.	PB	Movable and Immovable Property	100.00	Dr. Gunkul Dhumrongpiyawut	✓	✓
				Ms. Sopacha Dhumrongpiyawut	✓	✓
				Ms. Naruechon Dhumrongpiyawut	✓	✓
24. Green Field Energy Co., Ltd.	GF	Movable and Immovable Property	100.00 (Share Hold by GMA)	Dr. Gunkul Dhumrongpiyawut	✓	✓
				Ms. Sopacha Dhumrongpiyawut	✓	✓
				Ms. Naruechon Dhumrongpiyawut	✓	✓

Related Persons

Company	Status in GUNKUL	Relationship
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Related Persons

1. Dr. Gunkul Dhumrongpiyawut	Director	<ul style="list-style-type: none"> Dr. Gunkul Dhumrongpiyawut, and family, is a major shareholder holding 99.73% of shares in GKG and is the Chairman of the Board of Directors of GUNKUL. GKG is a major shareholder holding 49.94 of shares in GUNKUL.
2. Ms. Sopacha Dhumrongpiyawut	Director	<ul style="list-style-type: none"> Ms. Sopacha Dhumrongpiyawut is Dr. Gunkul Dhumrongpiyawut's spouse, is a Director of GUNKUL and is the Chairman of the Executive Committee of GUNKUL.
3. Ms. Naruechon Dhumrongpiyawut	Director	<ul style="list-style-type: none"> Ms. Naruechon Dhumrongpiyawut is Dr. Gunkul Dhumrongpiyawut's daughter and is a Director of GUNKUL.
4. Mr. Chaloepon Sricharoen	Director	<ul style="list-style-type: none"> Mr. Chaloepon Sricharoen is Ms. Sopacha Dhumrongpiyawut's brother and is a Director of GUNKUL.

¹⁾ Dr. Gunkul Dhumrongpiyawut is the Chairman of the Board of Directors. Ms. Sopacha Dhumrongpiyawut, Dr. Somboon Aueatchasai, Ms. Naruechon Dhumrongpiyawut, Mrs. Areewan Chamloemdan, and Mr. Chaloepon Sricharoen are directors of Gunkul Engineering Public Company Limited.

²⁾ Dr. Gunkul Dhumrongpiyawut, Dr. Somboon Aueatchasai, and Ms. Naruechon Dhumrongpiyawut are shareholders of Gunkul Engineering Public Company Limited.

³⁾ Gunkul Group Company Limited is a major shareholder of Gunkul Engineering Public Company Limited by holding 49.94% of shares.

⁴⁾ Related persons are Gunkul Group Company Limited and/or Dhumrongpiyawut's family members and/or Sricharoen's family members (Ms. Sopacha Dhumrongpiyawut's family).



(2) Summary of Related Party Transactions in 2022 and 2021

Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
(1) Revenue from Sale and Services					
GUNKUL	GKA	Revenue from Sale	0.16	0.95	GUNKUL sold finished Goods to GKA for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	0.03	
		Other Receivables (Advance Payment)	-	0.16	
		Other Receivables	0.02	-	
	GKP	Revenue from Sale	0.08	0.03	GUNKUL sold finished Goods to GKP for use in operations at cost plus profit of 5-30%.
		Revenue from Sale of Assets	0.45	0.04	
		Other Receivables	-	0.03	
		Other Receivables (Advance Payment)	-	0.02	
	KNP	Revenue from Sale	10.89	6.74	GUNKUL sold finished Goods to KNP for use in operations at cost plus profit of 5-30%.
		Account Receivables	1.27	0.31	
		Other Receivables (Advance Payment)	-	0.11	
		Other Receivables	0.34	-	
		Revenue from Sale of Assets	0.46	-	
	GUE	Revenue from Sale	7.48	2.88	GUNKUL sold finished Goods to GUE for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	1.35	
		Other Receivables (Advance Payment)	-	0.02	
		Other Receivables	0.09	-	
		Revenue from Sale of Assets	0.02	-	
	GPD	Revenue from Sale	41.60	263.67	GUNKUL sold finished Goods to GPD for use in operations at cost plus profit of 5-30%.
		Revenue from Rendering Services (S&A)	0.08	-	According to the contract agreed between the parties.
		Revenue from Rendering Services	-	2.11	According to the contract agreed between the parties.
		Revenue from Sale of Assets	0.18	-	
		Account Receivables	1.31	59.49	
		Other Receivables	1.19	-	
		Other Receivables (Advance Payment)	-	1.73	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	RNS	Revenue from Sale	-	0.07	GUNKUL sold finished Goods to RNS for use in operations at cost plus profit of 5-30%.
	GSP-2	Revenue from Sale	0.43	0.05	GUNKUL sold finished Goods to GSP-2 for use in operations at cost plus profit of 5-30%.
	WED	Revenue from Rendering Services (S&A)	0.50	-	According to the contract agreed between the parties.
		Revenue from Sale of Assets	0.01	-	
	ECO	Revenue from Rendering Services (S&A)	0.44	0.42	According to the contract agreed between the parties.
		Other Receivables	-	0.04	
	GNP	Revenue from Rendering Services (S&A)	0.50	-	According to the contract agreed between the parties.
	KWE	Revenue from Rendering Services (S&A)	0.50	-	According to the contract agreed between the parties.
	NKP	Revenue from Rendering O&M Services	1.71	1.65	According to the contract agreed between the parties.
	GSC	Revenue from Sale	63.98	83.57	GUNKUL sold finished Goods to GSC for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	18.22	
		Other Receivables (Advance Payment)	-	0.05	
	SES	Revenue from Sale	3.44	30.22	GUNKUL sold finished Goods to SES for use in operations at cost plus profit of 5-30%.
		Account Receivables	0.05	12.95	
		Other Receivables (Advance Payment)	-	0.02	
	GIG	Revenue from Rendering Services (S&A)	-	0.36	According to the contract agreed between the parties.
		Revenue from Sale	-	5.85	GUNKUL sold finished Goods to GIG for use in operations at cost plus profit of 5-30%.
		Other Receivables (Advance Payment)	-	0.05	
	TVTN	Account Receivables	0.70	0.68	
	FEC	Revenue from Sale	53.69	72.92	GUNKUL sold finished Goods to FEC for use in operations at cost plus profit of 5-30%.
		Revenue from Rendering Services (S&A)	0.28	-	According to the contract agreed between the parties.
		Revenue from Sale of Assets	0.34	-	
		Account Receivables	11.28	0.58	
		Other Receivables (Advance Payment)	-	0.16	
		Other Receivables	0.63	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	BMPS	Revenue from Sale	-	0.07	GUNKUL sold finished Goods to BMPS for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	0.07	
	GCPG	Revenue from Rendering Services (S&A)	5.98	5.75	According to the contract agreed between the parties.
		Account Receivables	0.53	0.51	
	FE	Account Receivables	0.01	-	
		Other Receivables (Advance Payment)	-	0.03	
	DST	Revenue from Sale	-	0.22	GUNKUL sold finished Goods to DST for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	0.22	
	GDFF	Revenue from Sale	43.29	21.29	GUNKUL sold finished Goods to GDFF for use in operations at cost plus profit of 5-30%.
		Revenue from Rendering Services (S&A)	1.75	1.17	According to the contract agreed between the parties.
		Other Receivables (Advance Payment)	-	0.01	
	GKHG	Other Receivables	0.01	-	
	TCE	Revenue from Sale	-	0.47	GUNKUL sold finished Goods to TCD for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	0.47	
	JV_GPD-TEECL	Revenue from Sale	0.17	-	GUNKUL sold finished Goods to JV_GPD-TEECL for use in operations at cost plus profit of 5-30%.
		Other Receivables	0.05	-	
		Other Receivables (Advance Payment)	-	0.04	
		Revenue from Rendering Services (S&A)	0.01	-	According to the contract agreed between the parties.
	GKSF	Other Receivables (Advance Payment)	-	-	
		Revenue from Sale	2.35	0.19	GUNKUL sold finished Goods to GKSF for use in operations at cost plus profit of 5-30%.
	GKBE	Revenue from Sale	1.03	-	GUNKUL sold finished Goods to GKBE for use in operations at cost plus profit of 5-30%.
	GGC (GGA)	Revenue from Rendering Services (S&A)	0.25	-	According to the contract agreed between the parties.
	FPC	Revenue from Sale	0.02	-	GUNKUL sold finished Goods to FPC for use in operations at cost plus profit of 5-30%.
		Account Receivables	0.01	-	
		Revenue from Rendering Services (S&A)	0.01	-	According to the contract agreed between the parties.
	PNE	Other Receivables	0.48	-	
		Revenue from Rendering Services (S&A)	0.45	-	According to the contract agreed between the parties.



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GKA	GKP	Revenue from Sale	33.94	32.61	GKA sold finished Goods to GKP for use in operations at cost plus profit of 5-30%.
		Revenue from Rendering Services	-	4.63	According to the contract agreed between the parties.
		Account Receivables	9.13	7.39	
		Other Income	0.05	-	
	FEC	Revenue from Sale	11.70	2.63	GKA sold finished Goods to FEC for use in operations at cost plus profit of 5-30%.
		Revenue from Rendering Services	0.04	0.01	According to the contract agreed between the parties.
		Account Receivables	7.93	0.22	
	GSC	Revenue from Sale	0.12	0.22	GKA sold finished Goods to GSC for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	0.15	
	GCPG	Revenue from Sale	-	0.81	GKA sold finished Goods to GCPG for use in operations at cost plus profit of 5-30%.
		Account Receivables	87.25	20.53	GKA sold finished Goods to KNP for use in operations at cost plus profit of 5-30%.
	KNP	Account Receivables	18.62	9.68	
		Other Income	0.23	-	
		Revenue from Sale	-	0.16	GKA sold finished Goods to GKG for use in operations at cost plus profit of 5-30%.
	GKSF	Revenue from Sale	27.48	-	GKA sold finished Goods to GKSF for use in operations at cost plus profit of 5-30%.
		Revenue from Construction Services	35.40	-	According to the contract agreed between the parties.
		Account Receivables	0.06	-	
		Retention Receivables	1.77	-	
	GAP	Revenue from Sale	0.04	-	GKA sold finished Goods to GAP for use in operations at cost plus profit of 5-30%.
	FPC	Revenue from Sale	0.28	-	GKA sold finished Goods to FPC for use in operations at cost plus profit of 5-30%.
		Account Receivables	0.30	-	
GKP	GPD	Revenue from Sale	-	0.61	GKP sold finished Goods to GPD for use in operations at cost plus profit of 5-30%.
		Revenue from Rendering Services	-	0.37	According to the contract agreed between the parties.
		Account Receivables	-	0.34	
	RNS	Revenue from Sale	0.59	-	GKP sold finished Goods to RNS for use in operations at cost plus profit of 5-30%.
	FEC	Revenue from Sale	6.12	5.35	GKP sold finished Goods to FEC for use in operations at cost plus profit of 5-30%.
		Account Receivables	1.48	5.57	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GKP	GCPG	Revenue from Rendering Services	0.04	-	According to the contract agreed between the parties.
	GDFE	Revenue from Sale	0.71	0.03	GKP sold finished Goods to GDFE for use in operations at cost plus profit of 5-30%.
	KNP	Revenue from Sale	25.10	9.34	GKP sold finished Goods to KNP for use in operations at cost plus profit of 5-30%.
		Other Income	0.27	-	
		Account Receivables	4.32	3.92	
	WED	Revenue from Rendering Services	0.02	0.02	According to the contract agreed between the parties.
		Account Receivables	-	0.02	
	JV_GPD-TEECL	Revenue from Sale	0.39	-	GKP sold finished Goods to JV_GPD-TEECL for use in operations at cost plus profit of 5-30%.
GPD	ECO	Revenue from Rendering O&M Services	0.86	2.50	According to the contract agreed between the parties.
	BMP	Revenue from Rendering O&M Services	0.03	0.10	According to the contract agreed between the parties.
		Unearned Revenue from O&M Services	-	0.03	
	SES	Revenue from Construction Services	32.97	176.68	According to the contract agreed between the parties.
		Revenue from Rendering O&M Services	2.49	5.74	
		Revenue from Sale	-	0.12	GPD sold finished Goods to SES for use in operations at cost plus profit of 5-30%.
		Account Receivables	2.29	2.16	
		O&M Accured Services Revenue	0.28	0.27	
		Unbilled Revenue	-	30.75	
		Advance Received	-	4.69	
		Unearned Revenue from O&M Services	-	0.37	
	RNS	Revenue from Rendering O&M Services	11.48	35.07	According to the contract agreed between the parties.
		Revenue from Sale	-	0.36	GPD sold finished Goods to RNS for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	0.38	
		O&M Accured Services Revenue	-	0.72	
		Unearned Revenue from O&M Services	-	2.48	
	FEC	Revenue from Sale	0.49	0.09	GPD sold finished Goods to FEC for use in operations at cost plus profit of 5-30%.
		Account Receivables	0.03	0.02	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GPD	GPS	Revenue from Rendering O&M Services	4.33	28.94	According to the contract agreed between the parties.
		O&M Accured Services Revenue	-	1.59	
	GCPG	Revenue from Rendering O&M Services	7.53	23.03	According to the contract agreed between the parties.
		O&M Accured Services Revenue	-	0.19	
		Unearned Revenue from O&M Services	-	3.13	
	WHA_GSR-1	Revenue from Rendering Services	0.02	-	According to the contract agreed between the parties.
	WHA_GSR-3	Revenue from Rendering Services	0.02	-	According to the contract agreed between the parties.
	WHA_GSR-6	Revenue from Rendering Services	0.02	-	According to the contract agreed between the parties.
	WHA_GSR-17	Revenue from Rendering Services	0.02	-	According to the contract agreed between the parties.
	GUE	Revenue from Sale	8.38	-	GPD sold finished Goods to GUE for use in operations at cost plus profit of 5-30%.
		Revenue from Rendering Services	-	0.48	According to the contract agreed between the parties.
		Account Receivables	0.31	0.05	
		Other Receivables	0.04	-	
		Revenue from Sale of Assets	6.41	-	
	GSC	Revenue from Rendering Services	-	0.02	According to the contract agreed between the parties.
		Account Receivables	-	0.17	
	GIG	Revenue from Construction Services	0.30	12.73	According to the contract agreed between the parties.
		Unbilled Revenue	-	1.76	
		Revenue from Sale	-	2.36	GPD sold finished Goods to GIG for use in operations at cost plus profit of 5-30%.
		Revenue from Rendering O&M Services	0.09	0.26	According to the contract agreed between the parties.
		O&M Accured Services Revenue	-	0.13	
		Account Receivables	0.59	-	
	SGSE	Revenue from Sale	-	0.05	GPD sold finished Goods to SGSE for use in operations at cost plus profit of 5-30%.
	GDFD	Revenue from Sale	-	0.80	GPD sold finished Goods to GDFD for use in operations at cost plus profit of 5-30%.



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
FEC	JV_GKE-FEC	Other Receivables	4.81	4.81	
	JV_GPD-TEECL	Revenue from Construction Services	1.31	0.11	According to the contract agreed between the parties.
		Account Receivables	0.12	0.01	
		Sales Revenue	0.10	-	FEC sold finished Goods to JV_GPD-TEECL for use in operations at cost plus profit of 5-30%.
	FPC	Account Receivables	0.84	-	
		Other Receivable	0.07	-	
		Revenue from Sale	1.83	-	FEC sold finished Goods to FPC for use in operations at cost plus profit of 5-30%.
		Revenue from Construction Services	1.52	-	According to the contract agreed between the parties.
	WED	Other Receivables	0.02	-	
		Revenue from Sale of Assets	0.02	-	
KNP	FEC	Revenue from Sale	7.61	0.05	KNP sold finished Goods to FEC for use in operations at cost plus profit of 5-30%.
		Account Receivables	0.61	0.05	
	GUE	Revenue from Sale	0.44	0.09	KNP sold finished Goods to GUE for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	0.10	
	FPC	Account Receivables	2.17	-	
		Revenue from Sale	2.04	-	KNP sold finished Goods to FPC for use in operations at cost plus profit of 5-30%.
	JV_GPD-TEECL	Revenue from Sale	0.59	-	KNP sold finished Goods to JV_GPD-TEECL for use in operations at cost plus profit of 5-30%.
	GKSF	Revenue from Sale	0.01	-	KNP sold finished Goods to GKSF for use in operations at cost plus profit of 5-30%.
	GDFP	Revenue from Sale	0.01	-	KNP sold finished Goods to GDFP for use in operations at cost plus profit of 5-30%.
	GSC	Revenue from Sale	0.04	-	KNP sold finished Goods to GSC for use in operations at cost plus profit of 5-30%.
		Account Receivables	0.01	-	
	SES	Other Receivables	0.84	-	
		Service Revenue	0.79	-	According to the contract agreed between the parties.



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUE	SES	Revenue from Construction Services	44.55	-	According to the contract agreed between the parties.
		Unbilled Revenue	7.05	-	
		Unearned Revenue from Construction Services	1.13	-	
		Unearned Revenue from O&M Services	0.45	-	
		O&M Accured Services Revenue	1.65	-	
		Revenue from Rendering O&M Services	6.95	-	According to the contract agreed between the parties.
		Account Receivables	15.96	-	
		Revenue from Sale	0.09	-	
	WED	Revenue from Sale	-	0.05	GUE sold finished Goods to WED for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	0.05	
	KWE	Revenue from Sale	-	0.05	GUE sold finished Goods to KWE for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	0.05	
	GNP	Revenue from Sale	-	0.05	GUE sold finished Goods to GNP for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	0.05	
	GKSF	Revenue from Sale	0.95	6.28	GUE sold finished Goods to GKSF for use in operations at cost plus profit of 5-30%.
		Account Receivables	-	3.61	
	GIG	Account Receivables	0.58	0.04	
		Revenue from Rendering O&M Services	0.22	-	According to the contract agreed between the parties.
		O&M Accured Services Revenue	0.04	-	
	GMA	Revenue from Sale	-	0.05	GUE sold finished Goods to GMA for use in operations at cost plus profit of 5-30%.
	GKBE	Revenue from Sale	0.01	-	GUE sold finished Goods to GKBE for use in operations at cost plus profit of 5-30%.
	RNS	O&M Accured Services Revenue	0.72	-	
		Revenue from Rendering O&M Services	23.32	-	According to the contract agreed between the parties.
		Unearned Revenue from O&M Services	2.48	-	
	BMP	Revenue from Rendering O&M Services	0.39	-	According to the contract agreed between the parties.
		Unearned Revenue from O&M Services	0.19	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUE	GPS	O&M Accrued Services Revenue	1.08	-	According to the contract agreed between the parties.
		Revenue from Rendering O&M Services	7.58	-	
	GCPG	O&M Accrued Services Revenue	0.19	-	According to the contract agreed between the parties.
		Unearned Revenue from O&M Services	3.13	-	
		Revenue from Rendering O&M Services	13.33	-	
	ECO	Revenue from Rendering O&M Services	1.74	-	According to the contract agreed between the parties.
	GSC	Account Receivables	0.46	-	
		Other Receivables	0.02	-	
	GOE-2	Other Receivables	0.02	-	
	GOE-9	Other Receivables	0.08	-	
	GSPG	Other Receivables	0.01	-	
GSC	BGP	Revenue from Rendering Services	-	11.52	According to the contract agreed between the parties.
	FE	Revenue from Sale	0.97	0.11	GSC sold finished Goods to FE for use in operations at cost plus profit of 5-30%.
		Account Receivables	0.55	-	
	GDFD	Revenue from Sale	0.49	11.09	GSC sold finished Goods to GDFD for use in operations at cost plus profit of 5-30%.
	GKG	Revenue from Sale	0.01	0.01	GSC sold finished Goods to GKG for use in operations at cost plus profit of 5-30%.
	SES	Revenue from Sale	-	2.06	GSC sold finished Goods to SES for use in operations at cost plus profit of 5-30%.
		Revenue from Construction Services	181.86	-	According to the contract agreed between the parties.
		Unbilled Revenue	0.61	-	
		Account Receivables	8.77	124.91	
		Other Receivables	0.12	-	
	JGS	Revenue from Sale	1.07	-	GSC sold finished Goods to JGS for use in operations at cost plus profit of 5-30%.
		Account Receivables	0.42	-	
	OG	Account Receivables	2.54	-	
	PNE	Account Receivables	1.26	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GDFF	FE	Revenue from Sale	1.93	-	GDFF sold finished Goods to FE for use in operations at cost plus profit of 5-30%.
		Account Receivables	1.15	-	
GTRC	GCPG	Training Revenue	-	0.01	According to the contract agreed between the parties.
	GMA	Training Revenue	-	0.01	According to the contract agreed between the parties.
		Account Receivables	-	0.01	
	THCG	Training Revenue	0.03	-	According to the contract agreed between the parties.
	WED	Training Revenue	0.01	0.02	According to the contract agreed between the parties.
		Account Receivables	-	0.01	
FPC	KWE	Training Revenue	0.01	-	According to the contract agreed between the parties.
	KWE	Revenue from Construction Services	7.40	-	According to the contract agreed between the parties.
		Advance Received	1.36	-	
		Retention Receivables	0.23	-	
		Account Receivables	6.02	-	
	GNP	Revenue from Construction Services	7.40	-	According to the contract agreed between the parties.
		Advance Received	1.36	-	
		Retention Receivables	0.23	-	
		Account Receivables	6.02	-	
	JV_GPD-TEECL	Account Receivables	0.27	-	According to the contract agreed between the parties.
		Revenue from Construction Services	0.25	-	
GKSF	THCG	Revenue from Sale of Assets	0.52	-	
	GKBE	Revenue from Sale	9.76	-	GKSF sold finished Goods to GKBE for use in operations at cost plus profit of 5-30%.
		Account Receivables	3.80	-	
GKBE	TSH	Revenue from Sale	0.05	-	GKBE sold finished Goods to TSH for use in operations at cost plus profit of 5-30%.
	THCG	Account Receivables	0.37	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
(2) Purchasing and Receiving Services					
GUNKUL	GKA	Purchase of Goods and Services	10.51	58.33	GUNKUL bought finished Goods from GKA for use in operations at cost plus profit of 5-30%.
		Account Payables	2.61	8.52	
	GKP	Purchase of Goods and Services	95.55	291.16	GUNKUL bought finished Goods from GKP for use in operations at cost plus profit of 5-30%.
		Account Payables	5.08	53.32	
	KNP	Purchase of Goods and Services	4.62	2.74	GUNKUL bought finished Goods from KNP for use in operations at cost plus profit of 5-30%.
		Account Payables	0.19	1.70	
		Other Payables	1.02	2.43	
	GUE	Other Payables	4.09	-	
		O&M Services Expense	4.09	-	According to the contract agreed between the parties.
	GPD	Purchase of Goods and Services	-	0.02	GUNKUL bought finished Goods from GPD for use in operations at cost plus profit of 5-30%.
		Other Payables	2.52	-	
		Purchase of Assets	0.05	-	
	GSC	Purchase of Goods and Services	-	0.02	GUNKUL bought finished Goods from GSC for use in operations at cost plus profit of 5-30%.
	FEC	Purchase of Goods and Services	-	1.18	GUNKUL bought finished Goods from FEC for use in operations at cost plus profit of 5-30%.
		Cost of Construction Services	-	3.88	According to the contract agreed between the parties.
		Account Payables	-	0.51	
		Other Payables	-	0.50	
	GTRC	Training Expenses	0.23	0.33	According to the contract agreed between the parties.
		Other Payables	-	0.06	
	SES	Purchase of Goods and Services	-	0.04	GUNKUL bought finished Goods from SES for use in operations at cost plus profit of 5-30%.
	GKT	Purchase of Assets	-	0.02	
	TSH	Administrative Expenses	0.15	-	
		Other Payables	0.01	-	
	JV_GKE-FEC	Other Payables	0.15	-	
	THCG	Administrative Expenses	0.04	-	
		Other Payables	0.01	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	GOE-9	Other Payables	0.01	-	
	GKBE	Other Payables	0.38	-	
		Administrative Expenses	0.36	-	
GKA	GKP	Purchase of Goods and Services	1.32	0.75	GKA bought finished Goods from GKP for use in operations at cost plus profit of 5-30%.
		Account Payables	0.28	0.14	
	GUE	Purchase of Goods and Services	-	0.01	GKA bought finished Goods from GUE for use in operations at cost plus profit of 5-30%.
	GTRC	Training Expenses	0.14	0.06	According to the contract agreed between the parties.
		Other Payables	0.02	0.01	
	KNP	Other Payables	2.70	0.43	
		Account Payables	0.04	-	
		Purchase of Goods and Services	0.38	-	GKA bought finished Goods from KNP for use in operations at cost plus profit of 5-30%.
	GKP	GTRC	Training Expenses	0.07	0.03
Other Payables			0.01	0.01	
KNP		Other Payables	0.95	0.08	
GPD	FEC	Cost of Construction Services	-	1.51	According to the contract agreed between the parties.
		Account Payables	-	0.01	
		Other Payables	-	0.38	
	GUE	Purchase of Goods and Services	0.02	0.19	GPD bought finished Goods from GUE for use in operations at cost plus profit of 5-30%.
		Account Payables	1.28	2.72	
		Other Payables	0.17	0.14	
	GTRC	Training Expenses	0.05	0.12	According to the contract agreed between the parties.
		Other Payables	-	0.06	
	KNP	Purchase of Goods and Services	-	0.19	GPD bought finished Goods from KNP for use in operations at cost plus profit of 5-30%.
	SES	Purchase of Goods and Services	0.01	-	GPD bought finished Goods from SES for use in operations at cost plus profit of 5-30%.
	GDDF	Other Expenses	(0.01)	-	GDDF returned goods to GPD (Purchase transaction in 2021)
RNS	GTRC	Training Expenses	-	0.01	According to the contract agreed between the parties.
		Other Payables	-	0.01	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
ECO	GTRC	Training Expenses	0.01	0.01	According to the contract agreed between the parties.
GUE	GTRC	Training Expenses	0.01	0.04	According to the contract agreed between the parties.
		Other Payables	-	0.03	
	TSH	Other Payables	0.01	-	
	THCG	Other Payables	0.01	-	
FEC	GTRC	Training Expenses	0.12	0.21	According to the contract agreed between the parties.
		Other Payables	-	0.02	
	JV_GPD-TEECL	Account Payables	-	0.35	
	FPC	Account Payables	0.75	-	
		Cost of Construction Services	0.70	-	According to the contract agreed between the parties.
BGP	GTRC	Training Expenses	-	0.02	According to the contract agreed between the parties.
GSC	GTRC	Training Expenses	0.01	0.04	According to the contract agreed between the parties.
		Other Payables	-	0.02	
	GDFE	Purchase of Goods and Services	1.28	3.04	GSC bought finished Goods from GDFE for use in operations at cost plus profit of 5-30%.
		Account Payables	-	2.67	
	FE	Purchase of Goods and Services	1.15	-	GSC bought finished Goods from FE for use in operations at cost plus profit of 5-30%.
		Account Payables	1.17	-	
		Other Payables	0.02	-	
	SES	Purchase of Goods and Services	0.03	0.05	GSC bought finished Goods from SES for use in operations at cost plus profit of 5-30%.
BMPS	GTRC	Training Expenses	0.01	0.01	According to the contract agreed between the parties.
SES	GTRC	Training Expenses	0.02	0.02	According to the contract agreed between the parties.
		Other Payables	-	0.01	
GDFE	GTRC	Training Expenses	0.02	0.01	According to the contract agreed between the parties.
		Other Payables	-	0.01	
	FE	Purchase of Goods and Services	0.15	-	GDFE bought finished Goods from FE for use in operations at cost plus profit of 5-30%.
	SES	Purchase of Goods and Services	1.12	-	GDFE bought finished Goods from SES for use in operations at cost plus profit of 5-30%.



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
KNP	GDF	Purchase of Goods and Services	0.50	-	KNP bought finished Goods from GDF for use in operations at cost plus profit of 5-30%.
	GTRC	Training Expenses	0.01	-	According to the contract agreed between the parties.
FE	GTRC	Training Expenses	0.01	-	According to the contract agreed between the parties.
GKHG	GTRC	Training Expenses	0.02	-	According to the contract agreed between the parties.
GKBE	GTRC	Training Expenses	0.01	-	According to the contract agreed between the parties.
GWP-5	GWP-6	Purchase of Assets	0.60	-	
(3) Purchase-disposal of assets and rental fees					
GUNKUL	NKP	Rental Income	0.23	0.23	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Accured Rental Income	0.32	0.30	
	GSR-1	Rental Income	0.02	0.02	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
	GDF	Rental Income	0.51	0.29	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Accured Rental Income	-	0.29	
	GMA	Lease Liabilities	3.06	6.02	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Amortization - Right-of-Use-Assets	2.71	2.96	
		Interest Payables - Lease Liabilities	0.15	0.27	
	GMA-2	Lease Liabilities	2.17	4.27	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Amortization - Right-of-Use-Assets	1.92	2.10	
		Interest Payables - Lease Liabilities	0.11	0.19	
	GMA-3	Right-of-Use Assets	-	5.61	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Lease Liabilities	1.94	3.81	
		Amortization - Right-of-Use-Assets	1.71	1.87	
		Interest Payables - Lease Liabilities	0.10	0.17	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	GMA-8	Lease Liabilities	1.08	2.12	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Amortization - Right-of-Use-Assets	0.96	1.04	
		Interest Payables - Lease Liabilities	0.05	0.09	
GKA	GKP	Rental Income	0.72	0.72	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
	GSR-1	Rental Income	0.12	0.12	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Accured Rental Income	0.01	0.01	
	GMA-9	Lease Liabilities	0.83	1.65	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Amortization - Right-of-Use-Assets	0.82	0.82	
		Interest Payable - Lease Liabilities	0.02	0.03	
GKP	GMA-7	Lease Liabilities	0.67	1.33	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Amortization - Right-of-Use-Assets	0.66	0.66	
		Interest Payable - Lease Liabilities	0.02	0.03	
	GKA	Rental Income	0.79	0.79	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
	GUE	Rental Income	0.79	0.79	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
	GPD	Rental Income	0.21	0.02	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Accured Rental Income	-	0.02	
GWP-5	GWP-9	Rental Income	1.67	-	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Land Lease Unearned Revenue	1.24	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GPD	GMA-3	Right-of-Use Assets	-	0.66	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Lease Liabilities	0.23	0.45	
		Amortization - Right-of-Use-Assets	0.22	0.22	
		Interest Payable - Lease Liabilities	0.01	0.02	
	GMA-4	Right-of-Use Assets	-	2.42	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Lease Liabilities	0.83	1.64	
		Amortization - Right-of-Use-Assets	0.81	0.81	
		Interest Payable - Lease Liabilities	0.05	0.07	
FEC	GMA-3	Right-of-Use Assets	-	0.33	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Lease Liabilities	0.11	0.32	
		Amortization - Right-of-Use-Assets	0.11	0.11	
		Interest Payable - Lease Liabilities	0.01	0.01	
	GMA-4	Right-of-Use Assets	-	1.04	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.
		Lease Liabilities	0.36	1.01	
		Amortization - Right-of-Use-Assets	0.35	0.35	
		Interest Payable - Lease Liabilities	0.02	0.03	
GSF	WED	Rental Income	0.54	-	The rental price is based on the market price or the fair price based on the appraised value of an independent appraiser. In this regard, the conditions of the agreement are in accordance with the normal conditions that can be compare with the transactions with other unrelated persons.



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
(4) Financial Support					
GUNKUL	GPD	Short-term loans			GUNKUL lent money to GPD for the purpose of doing business by issuing promissory note with charged interest rate of 2.65-2.73% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	100.00	-	
		Payment Received	(100.00)	-	
		Balance	-	-	
		Interest Income	0.11	-	
		Accured Interest Receivables	-	-	
	GUE	Short-term loans			GUNKUL lent money to GUE for the purpose of doing business by issuing promissory note with charged interest rate of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	20.00	-	
		Payment Received	-	-	
		Balance	20.00	-	
		Interest Income	0.01	-	
		Accured Interest Receivables	0.01	-	
		Short-term loans			GUNKUL lent money to GUE for the purpose of doing business by issuing promissory note with charged interest rate of 2.11% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	10.00	
		Loan - During the Period	-	-	
		Pay Back	-	(10.00)	
		Balance	-	-	
		Interest Expenses	-	0.05	
		Accured Interest Expenses	-	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	BGP	<u>Short-term loans</u>			GUNKUL lent money to BGP for the purpose of doing business by issuing promissory note with charged interest rate of 3% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	951.17	
		Loan - During the Period	-	-	
		Payment Received	-	(951.17)	
		Balance	-	-	
		Interest Income	-	21.02	
		Accured Interest Receivable	-	-	
		<u>Short-term loans</u>			GUNKUL lent money to BGP for the purpose of doing business by issuing promissory note with charged interest rate of 2.35% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	30.00	10.00	
		Loan - During the Period	-	30.00	
		Pay Back	(4.00)	(10.00)	
		Balance	26.00	30.00	
		Interest Expenses	0.67	0.25	
		Accured Expenses	0.02	0.04	
	GIM	<u>Short-term loans</u>			GUNKUL lent money to GIM for the purpose of doing business by issuing promissory note with charged interest rate of 2.20% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	37.63	1,315.65	
		Loan - During the Period	-	-	
		Payment Received	(37.80)	(1,283.93)	
		Difference from Exchange Rate	0.17	5.90	
		Balance	-	37.63	
		Interest Received	0.25	6.75	
		Accured Interest Receivables	-	0.39	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	BMP	<u>Short-term loans</u>			GUNKUL lent money to BMP for the purpose of doing business by issuing promissory note with charged interest of 2.95% and 3.20% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	316.13	344.93	
		Loan - During the Period	-	-	
		Payment Received	(28.80)	(28.80)	
		Balance	287.33	316.13	
		Interest Received	9.15	9.77	
		Accured Interest Receivables	0.16	0.13	
	GSP	<u>Short-term loans</u>			GUNKUL borrowed money from GSP for the purpose of doing business by issuing promissory note with charged interest of 2.14% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	65.00	110.00	
		Loan - During the Period	-	-	
		Pay Back	(34.00)	(45.00)	
		Balance	31.00	65.00	
		Interest Expenses	1.39	1.89	
		Accured Interest Expenses	0.07	0.99	
	SES	<u>Short-term loans</u>			GUNKUL lent money to SES for the purpose of doing business by issuing promissory note with charged interest of 2.14-3.49% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	601.60	500.00	
		Loan - During the Period	270.00	300.00	
		Pay Back	(254.00)	(198.40)	
		Balance	617.60	601.60	
		Interest Received	14.91	14.10	
		Accured Interest Receivables	5.65	3.25	
	KNP	<u>Short-term loans</u>			GUNKUL borrowed money from KNP for the purpose of doing business by issuing promissory note with charged interest of 2.65% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	8.00	
		Loan - During the Period	-	-	
		Pay Back	-	(8.00)	
		Balance	-	-	
		Interest Expenses	-	0.14	
		Accured Interest Expenses	-	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	GSC	<u>Short-term loans</u>			GUNKUL borrowed money from GSC for the purpose of doing business with charged interest of 2.11% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	7.00	
		Loan - During the Period	-	-	
		Pay Back	-	(7.00)	
		Balance	-	-	
		Interest Expenses	-	0.03	
		Accured Interest Expenses	-	-	
	GSC	<u>Short-term loans</u>			GUNKUL lent money to GSC for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	40.00	-	
		Loan - During the Period	25.00	40.00	
		Pay Back	(40.00)	-	
		Balance	25.00	40.00	
		Interest Received	0.09	0.40	
		Accured Interest Receivables	0.03	0.40	
	FAM	<u>Short-term loans</u>			GUNKUL lent money to FAM for the purpose of doing business with charged interest of 2.20% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	57.38	
		Loan - During the Period	-	-	
		Pay Back	-	(57.64)	
		Difference from Exchange Rate	-	0.26	
		Balance	-	-	
		Interest Received	-	0.09	
		Accured Interest Receivables	-	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	DST	<u>Short-term loans</u>			GUNKUL lent money to DST for the purpose of doing business with no interest charge between them.
		Loan - Beginning of Period	-	89.60	
		Loan - During the Period	-	-	
		Pay Back	-	(90.29)	
		Difference from Exchange Rate	-	0.69	
		Balance	-	-	
		Interest Received	-	-	
		Accured Interest Receivables	-	-	
	IAE	<u>Short-term loans</u>			GUNKUL borrowed money from IAE for the purpose of doing business with an interest rate of 2.14% per year, which is in accordance with the mutual agreement.
		Loan - Beginning of Period	-	17.00	
		Loan - During the Period	-	-	
		Pay Back	-	(17.00)	
		Balance	-	-	
		Interest Expenses	-	0.08	
		Accured Interest Expenses	-	-	
	SGSE	<u>Short-term loans</u>			GUNKUL borrowed money from SGSE for the purpose of doing business with an interest rate of 2.14% per year, which is in accordance with the mutual agreement.
		Loan - Beginning of Period	-	15.00	
		Loan - During the Period	-	-	
		Pay Back	-	(15.00)	
		Balance	-	-	
		Interest Expenses	-	0.10	
		Accured Interest Expenses	-	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	GSR-1	<u>Short-term loans</u>			GUNKUL borrowed money from GSR-1 for the purpose of doing business with an interest rate of 2.11% per year, which is in accordance with the mutual agreement.
		Loan - Beginning of Period	-	5.00	
		Loan - During the Period	-	-	
		Pay Back	-	(5.00)	
		Balance	-	-	
		Interest Expenses	-	0.05	
		Accured Expenses	-	-	
	GWP-1	<u>Short-term loans</u>			GUNKUL lent money to GWP-1 for the purpose of doing business with charged interest of 1.95% and 5% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	11.80	-	
		Loan - During the Period	4.60	11.80	
		Pay Back	(3.75)	-	
		Balance	12.65	11.80	
		Interest Received	0.57	0.05	
		Accured Interest Receivables	0.62	0.05	
	GWP-2	<u>Short-term loans</u>			GUNKUL lent money to GWP-2 for the purpose of doing business with charged interest of 1.95% and 5% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	7.50	-	
		Loan - During the Period	1.00	7.50	
		Pay Back	(3.75)	-	
		Balance	4.75	7.50	
		Interest Received	0.28	0.02	
		Accured Interest Receivables	0.30	0.02	
	GWP-3	<u>Short-term loans</u>			GUNKUL lent money to GWP-3 for the purpose of doing business with charged interest of 5% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	5.30	-	
		Loan - During the Period	4.30	5.30	
		Pay Back	(9.60)	-	
		Balance	-	5.30	
		Interest Received	0.07	0.02	
		Accured Interest Receivables	-	0.02	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	GWP-4	<u>Short-term loans</u>			GUNKUL lent money to GWP-4 for the purpose of doing business with charged interest of 5% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	2.00	-	
		Loan - During the Period	4.80	2.00	
		Pay Back	(3.75)	-	
		Balance	3.05	2.00	
		Interest Received	0.23	0.01	
		Accured Interest Receivables	0.24	0.01	
	GWP-5	<u>Short-term loans</u>			GUNKUL lent money to GWP-5 for the purpose of doing business with charged interest of 5% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	5.90	-	
		Pay Back	(5.90)	-	
		Balance	-	-	
		Interest Received	0.03	-	
		Accured Interest Receivables	-	-	
	GWP-6	<u>Short-term loans</u>			GUNKUL lent money to GWP-6 for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	1.00	-	
		Pay Back	-	-	
		Balance	1.00	-	
		Interest Received	-	-	
		Accured Interest Receivables	-	-	
	GWP-7	<u>Short-term loans</u>			GUNKUL lent money to GWP-7 for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	2.00	-	
		Pay Back	-	-	
		Balance	2.00	-	
		Interest Received	-	-	
		Accured Interest Receivables	-	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	GWPH-3	<u>Short-term loans</u>			GUNKUL lent money to GWPH-3 for the purpose of doing business with charged interest of 5% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	85.53	-	
		Pay Back	(78.13)	-	
		Balance	7.40	-	
		Interest Received	0.32	-	
		Accured Interest Receivables	0.31	-	
	GWPH-5	<u>Short-term loans</u>			GUNKUL lent money to GWPH-5 for the purpose of doing business with charged interest of 5% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	85.95	-	
		Pay Back	(78.50)	-	
		Balance	7.45	-	
		Interest Received	0.32	-	
		Accured Interest Receivables	0.31	-	
	GKHG	<u>Short-term loans</u>			GUNKUL lent money to GKHG for the purpose of doing business with charged interest of 1.60-1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	260.00	-	
		Pay Back	-	-	
		Balance	260.00	-	
		Interest Received	1.45	-	
		Accured Interest Receivables	1.45	-	
	JV_GKE-FEC	<u>Short-term loans</u>			GUNKUL lent money to JV_GKE-FEC for the purpose of doing business with charged interest of 1.60% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	0.50	-	
		Pay Back	-	-	
		Balance	0.50	-	
		Interest Received	-	-	
		Accured Interest Receivables	-	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	GGC	<u>Short-term loans</u>			GUNKUL lent short-term loan to GGC (GGA) for the purpose of doing business with no interest charged between them.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	5,000.00	-	
		Pay Back	(5,000.00)	-	
		Balance	-	-	
		Interest Received	-	-	
		Accured Interest Receivables	-	-	
	GWD-1	<u>Short-term loans</u>			GUNKUL lent money to GWD-1 for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	143.20	-	
		Pay Back	-	-	
		Balance	143.20	-	
		Interest Expenses	0.41	-	
		Accured Interest Expenses	0.41	-	
	GWD-3	<u>Short-term loans</u>			GUNKUL lent money to GWD-3 for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	5.00	-	
		Pay Back	(5.00)	-	
		Balance	-	-	
		Interest Received	-	-	
		Accured Interest Receivables	-	-	
		<u>Short-term loans</u>			GUNKUL borrowed money from GWD-3 for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	142.20	-	
		Pay Back	-	-	
		Balance	142.20	-	
		Interest Expenses	0.40	-	
		Accured Interest Expenses	0.40	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	GWD-6	<u>Short-term loans</u>			GUNKUL lent money to GWD-6 for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	5.00	-	
		Pay Back	(5.00)	-	
		Balance	-	-	
		Interest Received	-	-	
		Accured Interest Receivables	-	-	
		<u>Short-term loans</u>			
		Loan - Beginning of Period	-	-	
		Loan - During the Period	142.20	-	
		Pay Back	-	-	
		Balance	142.20	-	
		Interest Expenses	0.35	-	
		Accured Interest Expenses	0.40	-	
	GWD-8	<u>Short-term loans</u>			GUNKUL lent money to GWD-8 for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	5.00	-	
		Pay Back	(5.00)	-	
		Balance	-	-	
		Interest Received	0.01	-	
		Accured Interest Receivables	-	-	
		<u>Short-term loans</u>			
		Loan - Beginning of Period	-	-	
		Loan - During the Period	142.20	-	
		Pay Back	-	-	
		Balance	142.20	-	
		Interest Expenses	0.44	-	
		Accured Interest Expenses	0.40	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	GSPG	<u>Short-term loans</u>			GUNKUL lent money to GSPG for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	14.00	-	
		Pay Back	(14.00)	-	
		Balance	-	-	
		Interest Received	0.01	-	
		Accured Interest Receivables	-	-	
		<u>Short-term loans</u>			GUNKUL borrowed money from GSPG for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	192.90	-	
		Pay Back	-	-	
		Balance	192.90	-	
		Interest Expenses	0.57	-	
		Accured Interest Expenses	0.57	-	
	GOE-2	<u>Short-term loans</u>			GUNKUL lent money to GOE-2 for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	6.00	-	
		Pay Back	(6.00)	-	
		Balance	-	-	
		Interest Received	-	-	
		Accured Interest Receivables	-	-	
		<u>Short-term loans</u>			GUNKUL borrowed money from GOE-2 for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	124.70	-	
		Pay Back	-	-	
		Balance	124.70	-	
		Interest Expenses	0.36	-	
		Accured Interest Expenses	0.36	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	GOE-9	<u>Short-term loans</u>			GUNKUL lent money to GOE-9 for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	5.00	-	
		Pay Back	(5.00)	-	
		Balance	-	-	
		Interest Received	-	-	
		Accured Interest Receivables	-	-	
		<u>Short-term loans</u>			
		Loan - Beginning of Period	-	-	
		Loan - During the Period	218.70	-	
		Pay Back	-	-	
		Balance	218.70	-	
		Interest Expenses	0.64	-	
		Accured Expenses	0.64	-	
	GOE-11	<u>Short-term loans</u>			GUNKUL lent money to GOE-11 for the purpose of doing business with charged interest of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	4.00	-	
		Pay Back	(4.00)	-	
		Balance	-	-	
		Interest Received	-	-	
		Accured Interest Receivables	-	-	
		<u>Short-term loans</u>			
		Loan - Beginning of Period	-	-	
		Loan - During the Period	103.60	-	
		Pay Back	-	-	
		Balance	103.60	-	
		Interest Expenses	0.30	-	
		Accured Interest Expenses	0.30	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GPD	GSP-1	<u>Short-term loans</u>			GPD borrowed money from GSP-1 for the purpose of doing business by issuing promissory note with charged interest rate of 2.87% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	3.00	7.00	
		Loan - During the Period	-	-	
		Pay Back	(3.00)	(4.00)	
		Balance	-	3.00	
		Interest Expenses	0.03	0.16	
		Accured Expenses	-	-	
	GSP-2	<u>Short-term loans</u>			GPD borrowed money from GSP-2 for the purpose of doing business by issuing promissory note with charged interest rate of 2.87% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	5.00	9.00	
		Loan - During the Period	-	-	
		Pay Back	(5.00)	(4.00)	
		Balance	-	5.00	
		Interest Expenses	0.06	0.21	
		Accured Interest Expenses	-	-	
	FEC	<u>Short-term loans</u>			GPD lent money to FEC for the purpose of doing business by issuing promissory note with charged interest rate of 1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	100.00	40.00	
		Pay Back	(100.00)	(40.00)	
		Balance	-	-	
		Interest Received	0.11	0.15	
		Accured Interest Receivables	-	-	
	JV_GPD-TEECL	<u>Short-term loans</u>			GPD lent money to JV_GPD-TEECL for the purpose of doing business by issuing promissory note with charged interest rate of 2.94% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	-	3.00	
		Pay Back	-	(3.00)	
		Balance	-	-	
		Interest Received	-	0.02	
		Accured Interest Receivables	-	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GSP	GSP-1	<u>Short-term loans</u>			GSP borrowed money from GSP-1 for the purpose of doing business by issuing promissory note with charged interest rate of 2.14% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	11.00	13.00	
		Loan - During the Period	-	-	
		Pay Back	(2.00)	(2.00)	
		Balance	9.00	11.00	
		Interest Expenses	0.22	0.26	
		Accured Interest Expenses	0.01	-	
	GSP-2	<u>Short-term loans</u>			GSP borrowed money from GSP-2 for the purpose of doing business by issuing promissory note with charged interest rate of 2.14% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	16.00	18.00	
		Loan - During the Period	-	-	
		Pay Back	(2.00)	(2.00)	
		Balance	14.00	16.00	
		Interest Expenses	0.33	0.37	
		Accured Interest Expenses	0.01	-	
FE	GDFF	<u>Short-term loans</u>			FE lent money to GDFF for the purpose of doing business by issuing promissory note with charged interest rate of 1.50% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	-	0.03	
		Pay Back	-	(0.03)	
		Balance	-	-	
		Interest Received	-	-	
		Accured Interest Expenses	-	-	
	GSP	<u>Short-term loans</u>			FE borrowed money from GSP for the purpose of doing business by issuing promissory note with charged interest rate of 2.14% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	37.00	-	
		Pay Back	-	-	
		Balance	37.00	-	
		Interest Expenses	0.14	-	
		Accured Interest Expenses	0.14	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GKHG	GKSF	<u>Short-term loans</u>			GHG lent money to GKSF for the purpose of doing business by issuing promissory note with charged interest rate of 1.44-1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	17.00	-	
		Loan - During the Period	298.88	17.00	
		Pay Back	(27.38)	-	
		Balance	288.50	17.00	
		Interest Received	1.99	0.13	
		Accured Interest Expenses	0.58	0.13	
	GKBE	<u>Short-term loans</u>			GKHG lent money to GKBE for the purpose of doing business by issuing promissory note with charged interest rate of 1.43-1.95% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	103.00	-	
		Pay Back	-	-	
		Balance	103.00	-	
		Interest Received	0.93	-	
		Accured Interest Receivable	0.93	-	
GWP-3	GWPH-3	<u>Short-term loans</u>			GWP-3 borrowed money from GWPH-3 for the purpose of doing business by issuing promissory note with charged interest rate of 5% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	11.48	-	
		Pay Back	(11.48)	-	
		Balance	-	-	
		Interest Expenses	0.39	-	
		Accured Interest Expenses	-	-	
		<u>Short-term loans</u>			GWP-3 lent money to GWPH-3 for the purpose of doing business by issuing promissory note with charged interest rate of 5% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	144.39	-	
		Pay Back	-	-	
		Balance	144.39	-	
		Interest Received	0.61	-	
		Accured Interest Receivables	1.19	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GWP-5	GWPH-5	<u>Short-term loans</u>			GWP-5 borrowed money from GWPH-5 for the purpose of doing business by issuing promissory note with charged interest rate of 5% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	15.70	-	
		Pay Back	(15.70)	-	
		Balance	-	-	
		Interest Expenses	0.53	-	
		Accured Interest Expenses	-	-	
	GWP-3	<u>Short-term loans</u>			GWP-3 lent money to GWPH-3 for the purpose of doing business by issuing promissory note with charged interest rate of 5% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	140.77	-	
		Pay Back	-	-	
		Balance	140.77	-	
		Interest Income	0.60	-	
		Accured Interest Receivables	1.16	-	
FEC	FPC	<u>Short-term loans</u>			FEC lent money to FPC for the purpose of doing business by issuing promissory note with charged interest rate of 1.97% per year. The interest rates are mutually agreed.
		Loan - Beginning of Period	-	-	
		Loan - During the Period	10.00	-	
		Pay Back	-	-	
		Balance	10.00	-	
		Interest Received	0.01	-	
		Accured Interest Receivables	0.01	-	



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
(5) Other items					
GUNKUL	GPS	Dividend Income	53.57	71.35	GUNKUL received dividends from GPS. In the year 2022 and 2021, the total dividend that received was THB 53.57 million and THB 71.35 million, respectively.
		Accured Dividend Receivables	106.76	106.76	
	GCPG	Dividend Income	138.07	143.93	GUNKUL received dividends from GCPG. In the year 2022 and 2021, the total dividend that received was THB 138.07 million and THB 143.93 million, respectively.
	WHA_GSR-1	Dividend Income	-	0.20	GUNKUL received dividends from WHA_GSR-1. In the year 2021, the total dividend that received was THB 0.20 million.
	WHA_GSR-3	Dividend Income	-	0.42	GUNKUL received dividends from WHA_GSR-3. In the year 2021, the total dividend that received was THB 0.42 million.
	WHA_GSR-6	Dividend Income	-	0.47	GUNKUL received dividends from WHA_GSR-6. In the year 2021, the total dividend that received was THB 0.47 million.
	WHA_GSR-17	Dividend Income	-	0.40	GUNKUL received dividends from WHA_GSR-17. In the year 2021, the total dividend that received was THB 0.40 million.
	GPD	Dividend Income	79.97	-	GUNKUL received dividends from GPD. In the year 2022, the total dividend that received was THB 79.97 million.
	IAE	Dividend Income	295.44	355.03	GUNKUL received dividends from IAE. In the year 2022 and 2021, the total dividend that received was THB 295.44 million and THB 355.03, respectively.
	NKP	Dividend Income	13.07	14.00	GUNKUL received dividends from NKP. In the year 2022 and 2021, the total dividend that received was THB 13.07 million and THB 14.00, respectively.
	SGSE	Dividend Income	3.01	3.35	GUNKUL received dividends from SGSE. In the year 2022 and 2021, the total dividend that received was THB 3.01 million and THB 3.35, respectively.
	WED	Dividend Income	-	138.60	GUNKUL received dividends from WED. In the year 2021, the total dividend that received was THB 138.60 million.
	ECO	Dividend Income	5.26	4.20	GUNKUL received dividends from ECO. In the year 2022 and 2021, the total dividend that received was THB 5.26 million and THB 4.20, respectively.
	BMP	Dividend Income	19.50	21.80	GUNKUL received dividends from BMPS. In the year 2022 and 2021, the total dividend that received was THB 19.50 million and THB 21.80, respectively.



Company	Related Companies	Type of Transaction	Size		Reason and Necessity
			2022	2021	
			(Million baht)	(Million baht)	
GUNKUL	GNP	Dividend Income	-	377.19	GUNKUL received dividends from GNP. In the year 2021, the total dividend that received was THB 377.19 million.
	KWE	Dividend Income	-	466.93	GUNKUL received dividends from KWE. In the year 2021, the total dividend that received was THB 466.93 million.
	GIM	Dividend Income	186.98	1,068.51	GUNKUL received dividends from GIM. In the year 2022 and 2021, the total dividend that received was THB 186.98 million and THB 1,068.51, respectively.
	GTRC	Dividend Income	-	1.20	GUNKUL received dividends from GTRC. In the year 2021, the total dividend that received was THB 1.20 million.
	GIG	Dividend Income	94.36	-	GUNKUL received dividends from GIG. In the year 2022, the total dividend that received was THB 94.36 million.
	GSC	Dividend Income	19.00	-	GUNKUL received dividends from GSC. In the year 2022, the total dividend that received was THB 19.00 million.
	DST	Dividend Income	53.14	-	GUNKUL received dividends from DST. In the year 2022, the total dividend that received was THB 53.14 million.
	GGC	Dividend Income	412.51	-	GUNKUL received dividends from GGC. In the year 2022, the total dividend that received was THB 412.51 million.
IAE	RNS	Dividend Income	310.97	373.44	IAE received dividends from RNS. In the year 2022 and 2021, the total dividend that received was THB 310.97 million and THB 373.44, respectively.
GPD	FEC	Dividend Income	102.00	32.00	GPD received dividends from FEC. In the year 2022 and 2021, the total dividend that received was THB 102.00 million and THB 32.00, respectively.
BGP	SGAY	Dividend Income	-	28.47	BGP received dividends from SGAY. In the year 2021, the total dividend that received was THB 28.47 million.
	SGYY	Dividend Income	-	24.18	GUNKUL received dividends from SGYY. In the year 2021, the total dividend that received was THB 24.18 million.



9.2.2 Necessity and Responsibility of the Related Party Transactions

Opinion of the Audit committee towards the Related Party Transactions between the Company, subsidiaries, associated companies and related companies/ persons

- Such trading transactions were beneficial to the Company, reasonable, and under normal commercial terms.
- Renting or leasing space between the Company and subsidiaries with related persons, the Company and the Group have made the lease agreement and sublease agreement by using rental rates appraised by the independent appraiser, which has appraised the rentals for land and buildings used for the Company and the Group's business establishments. The terms and conditions are as if renting with third parties. The transactions were therefore reasonable and occurred as necessary.
- Providing Management of Operation & Maintenance (O&M) services between the Company and associated companies, the Group has entered into contracts at agreed rates. It was a transaction that is beneficial to the Company's operations with conditions and reasonableness.
- The Company and the Group have entered into solar rooftop power plant construction contracts with reasonable and agreed prices.
- Purchase of assets from the Company and the Group with related persons for use in the Company and the Group was a necessary transaction that was beneficial to the operations of the Company and the Group. The conditions and prices are comparable to the purchase of such assets from third parties.
- Loaning between each other within the Group and all related companies, the average interest rate is similar to the rate of loans from financial institutions. The said loan transaction occurred as necessary, is reasonable and beneficial to the operations of the Company and the Group.
- In the event that such transaction are considered not as "Normal Business" of the Group according to criteria of the Securities and Exchange Commission and the transaction size is larger than 1 million baht or larger than 0.03 percent of net tangible assets (NTA), the Company must seek approval from the Board of Directors' meeting or shareholders' meeting before entering into the transaction (depend on the transaction size).

9.2.3 Policy or Trends of Related Party Transaction in the Future and compliance with Obligations given by the Company in the Prospectus

Measures or Approval Procedures of Related Party Transactions

Entering into related party transactions between the Company and subsidiaries, and related companies/ persons depend on reasons and necessity by taking into account the interests of the Company. The price has to be fair or in accordance with general agreement on trade, and in compliance with law or regulations of Securities and Exchange Act. In case that the related party transaction of the Company or subsidiaries are made with persons who may have conflict of interest or might have conflict of interest in the future, and the management see the necessity of entering into the transaction but it is beyond the authority of the management to do so, the management may propose such transaction to the Board of Directors for consideration and/or shareholders' meeting for approval depend on the transaction size. In addition, the Company determines that management or related persons who have conflict of interest in such transaction are unallowed to participate in the approval process.

The Board of Directors has determined the policy to ensure transparency and fairness to all shareholders equally based on the following principles :

- It is a transaction that has been through a transparent approval process by directors and executives with responsibilities, careful, and honest, where stakeholders do not participate in the decision-making.
- It is a transaction that has been done by taking into account the interests of the Company as if making with a third party.
- There is a tracking and auditing system to ensure that the transactions are done according to the correct procedure.
- Details have been disclosed completely, accurately, transparently, in a timely manner.

The Company's policy on related party transactions can be classified by type of transactions as follows :

- Normal business transactions and transactions supporting normal business, such as purchasing and selling products or OEM.

Normal business transactions and supporting normal business transactions between the Company and subsidiaries, and directors, executives or the related persons, have been approved in principles by the Board of Directors for the management to approve such transactions if such transaction has a commercial agreement in the same way that a reasonable person would do with general contract parties in the same situation with commercial bargaining power without the influence



of their status as directors, executives or related persons. The table of approval authority has been established in hierarchical order according to transaction size to ensure transparency.

In addition, the Company will summarize the transaction report to submit to the Audit Committee and the Board of Directors meetings on quarterly basis.

- Other transactions in addition to the above-mentioned normal business transactions and supporting normal business transactions, such as short-term rental or lease of immovable properties, transactions relating to assets or services (such as investments or sales of investments in a business) or transactions of giving or receiving financial assistance.

The Company has a policy to determine the approval authority in compliance with principles of the Stock Exchange of Thailand.

In addition, the Company will summarize the transaction report to submit to the Audit Committee and the Board of Directors meetings on quarterly basis.

The Board of Directors complies with the Securities and Exchange Act, regulations, notifications, orders or requirements of the Stock Exchange of Thailand, including regulations regarding the related party transactions and the acquisition/ disposition of assets of the Company or subsidiaries, in order to ensure that the decisions to enter into such transactions do not cause conflicts of interest and is of the utmost benefits to all shareholders. In this regard, the Company will disclose the details of related party transactions in the Annual Registration Statement / Annual Report (Form 56-1 One Report), and the notes to financial statements, which have been audited by the Company's auditor.

Policy and Trends of Related Party Transactions in the future

1. Trend of related party transactions with persons who may have conflict of interest

- For High-Voltage Equipment business, the Company continues entering into related party transactions with subsidiaries for products and assets trading, providing financial support, including guaranting credit lines for subsidiaries and the use of subsidiaries' assets to guarantee credit lines of the Company.
- For Renewable Energy business, the Company continues entering into related party transactions with subsidiaries, associated companies, and joint ventures for selling products, providing power plant maintenance service, assets trading, providing financial support, including guaranting credit lines for subsidiaries and the use of subsidiaries' assets to guarantee credit lines of the Company.

- For Engineering and Turnkey business, the Company continues entering into related party transactions with subsidiaries for selling products, providing construction and system contracting services, financial support, including guaranting credit lines for subsidiaries and the use of subsidiaries' assets to guarantee credit lines of the Company.
- For foreign investment transactions and foreign investment projects, the Company continues to enter into related party transactions with subsidiaries and projects for providing financial support.

The Company and the Group have leased real estate and movable properties for using in business operations from the group of companies that have mutual directors.

2. Policy on Related Party Transactions in the future

The Company has a policy in conducting related party transactions to ensure fairness in accordance with market prices and the normal course of business (Fair and at arm's length), by determining practice conditions and terms to be in accordance with the nature of normal business operations, which can be compared to the price made with third parties, and comply with law or principles of the Stock Exchange of Thailand, including relevant regulations, notifications, orders or requirements. The Company determines measures and approval procedures of related party transactions by disallowing management or related persons who have conflict of interest in such transaction to participate in the approval process. In case that the related party transaction of the Company or subsidiaries are made with persons who may have conflict of interest or might have conflict of interest in the future, and the management see the necessity of entering into the transaction but it is beyond the authority of the management to do so, the management may propose such transaction to the Board of Directors for consideration and/or shareholders' meeting for approval depend on the transaction size. This is to be in line with the policy and delegation of authority, which are determined to serve as guidelines for proceeding with such matter and ensuring transparency.

The Company will comply with regulations regarding disclosure of related party transactions and prepare a report summarizing the transactions to report to the Audit Committee and the Board of Directors' meetings on quarterly basis. In addition, the Company will disclose related party transactions in Annual Registration Statement/ Annual Report (Form 56-1 One Report) and in the notes to financial statements, which have been audited by the Company's auditor.



Part 3

Financial Statements

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Board of Directors' Responsibility towards Financial Statements Report

Public Limited Companies Act B.E.2535 (1992), Accounting Act B.E. 2543 (2000), Securities and Exchange Act B.E. 2535 (1992) and Notification of the Capital Market Supervisory Board Re: Rules, Conditions and Procedures for Disclosure regarding Financial and Non-Financial Information of Securities Issuer stipulates that the Board of Directors is responsible for the financial statements and the financial information disclosed in the Annual Registration Statement / Annual Report (Form 56-1 One Report) to reflect the financial position, operating results, and cash flow accurately, transparently and beneficial to the financial statements' users. The Board of Directors appointed the Audit Committee to review the accounting policies and the financial report' quality, establish and maintain an appropriate and effective risk management system, internal control system, and internal audit to reasonably ensure that the financial records were carried out in an accurate, complete, and sufficient manner, in order to safeguard the assets, while also safeguarding against any significant fraud or abnormal operations.

The financial statements for the year ended December 31, 2022 have been prepared in accordance with the Financial Reporting Standards, with appropriate accounting policies applied on a consistent basis. Where judgments and estimates were required, these were made with careful and reasonable consideration, and adequate disclosures have been made in the notes to the financial statements in a transparent and useful manner to shareholders and general investors.

The consolidated financial statements of the Company and its subsidiaries, and separate financial statements of the Company for the year ended December 31, 2022 were audited by the auditor, KPMG Phoomchai Audit Co., Ltd. The Company has supported the auditor information and documents so the auditor can review and express opinions in accordance with the auditing standards. The auditor's opinions have been stated in the independent auditor's report, which are already shown in the Annual Registration Statement / Annual Report (Form 56-1 One Report).

From the assessment on adequacy of internal control system totaling 5 components, which are Control Environment, Risk Assessment and Management, Control Activities, Information and Communications, and Monitoring, the Board of Directors deemed that the Company has maintained an appropriate and adequate internal control system and able to establish reasonable assurance that the consolidated financial statements of the Company and its subsidiaries, and separate financial statements of the Company for the year ended December 31, 2022 presenting an accurate and reliable in all substantial aspects in accordance with generally accepted accounting standards, relevant law, rules and regulations.

Dr. Gunkul Dhumrongpiyawut

Chairman of the Board of Directors

February 27, 2023



Independent Auditor's Report

To the Shareholders of Gunkul Engineering Public Company Limited

Opinion

I have audited the consolidated and separate financial statements of Gunkul Engineering Public Company Limited and its subsidiaries (the “Group”) and of Gunkul Engineering Public Company Limited (the “Company”), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2022, the consolidated and separate statements of comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

In my opinion, the accompanying consolidated and separate financial statements present fairly, in all material respects, the financial position of the Group and the Company, respectively, as at 31 December 2022 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

Basis for Opinion

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements section of my report. I am independent of the Group and the Company in accordance with the Code of Ethics for Professional Accountants including Independence Standards issued by the Federation of Accounting Professions (Code of Ethics for Professional Accountants) that is relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with the Code of Ethics for Professional Accountants. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Key Audit Matters

Key audit matters are those matters that, in my professional judgment, were of most significance in my audit of the consolidated and separate financial statements of the current period. These matters were addressed in the context of my audit of the consolidated and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

Impairment testing of goodwill and investment in subsidiaries, associate and joint venture

Refer to Note 3, 10, 11 and 14

The key audit matter	How the matter was addressed in the audit
The Group consistently considered impairment testing of goodwill, and considered impairment testing of investment in subsidiaries, associate and joint venture when there is an indicator which all mainly affected by market situation. This required management's judgement. Therefore, this is an area of focus in my audit.	<p>My audit procedures in this area included, among others:</p> <ul style="list-style-type: none">• Understanding the impairment testing process of the management including estimated future cash flow and key assumptions used;• Testing key assumptions that underpin management's discounted cash flows with reference to market situations and its operating environment, my knowledge of the industry, and other obtained information;• Evaluating of the forecasting of financial performances by comparing historical estimation to the actual operating results and;• Evaluating the adequacy of the disclosures in accordance with the relevant Thai Financial Reporting Standards.



Revenue and cost of construction services

Refer to Note 3 and 8

The key audit matter

How the matter was addressed in the audit

The Group accounts for revenue from construction services by referencing the stage of completion of the constructions. This is assessed by the responsible project's engineers and considered with the actual costs and the estimated costs to complete the constructions.

The management and the project's engineers are required to exercise significant judgement to estimate the cost of construction services to complete the contracts that will affect the stage of completion. I considered the stage of completion and estimation for cost of construction services as the key audit matter.

My audit procedures in this areas included, among others;

- Understanding the processes of the estimation and revision of the estimated costs of construction services;
- Testing the estimated costs of construction services which were approved by the management, actual costs, revenue from construction services and unbilled revenue with related contracts and documents;
- Comparing the stage of completion determined by engineers with the ratio of actual costs and the estimated costs including tested customers' acceptance documents;
- Performing site visits together with the engineers to assess the appropriateness of the actual constructions progress and the stage of completion;
- Performing analyses of the actual costs incurred and the estimated costs comparison, gross profits, progress of constructions and challenging the management for any deviations;
- Testing the stage of completions and unbilled revenue calculations;
- Testing the actual costs incurred after the period ended with related documents;
- Evaluating the adequacy of the disclosures in accordance with the relevant Thai Financial Reporting Standards.

Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the correction be made.

Responsibilities of Management and Those Charged with Governance for the Consolidated and Separate Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate financial statements, management is responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's and the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.



As part of an audit in accordance with TSAs, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

(Waiyawat Kosamarnchaiyakij)
Certified Public Accountant
Registration No. 6333

KPMG Phoomchai Audit Ltd.
Bangkok
27 February 2023





Financial Statements

Statement of financial position

Gunkul Engineering Public Company Limited and its Subsidiaries

Assets	Note	Consolidated		Separate	
		financial statements		financial statements	
		31 December		31 December	
		2022	2021	2022	2021
(in Baht)					
Current assets					
Cash and cash equivalents	5	2,199,152,032	1,728,926,133	621,854,577	360,005,802
Short-term deposits from financial institution pledged as collateral	15	1,028,052,751	2,120,006,725	-	-
Trade and other current receivables	4.3, 6	943,624,525	1,465,511,393	69,636,258	185,360,111
Current portion of finance lease receivables	7	130,041,167	93,468,047	-	-
Unbilled revenue	8	1,143,656,159	1,096,476,895	-	-
Revenue Department receivable		50,411,435	14,735,188	2,606,487	5,130,574
Short-term loans to related parties	4.3	-	-	990,197,703	725,826,044
Inventories	9	984,179,016	808,911,788	221,322,469	350,589,544
Derivative assets	25	-	1,691,907	-	621,900
Other current financial assets	25	498,688,295	19,198,138	397,462,838	-
Other current assets		242,055,063	217,889,552	27,313,238	15,619,239
Total current assets		7,219,860,443	7,566,815,766	2,330,393,570	1,643,153,214
Non-current assets					
Other non-current financial assets	4.3	122,128,683	155,509,325	110,589,556	110,584,556
Long-term deposits from financial institution pledged as collateral	15	235,256,131	272,952,877	-	-
Loan to related parties	4.3	-	-	258,525,280	296,125,280
Investments in associates	10	375,424,250	374,013,537	397,594,800	397,594,800
Investments in joint ventures	10	5,166,283,149	1,458,671,597	1,893,177,740	726,177,750
Investments in subsidiaries	11	-	-	11,872,942,710	15,567,925,805
Finance lease receivables	7	2,058,491,939	1,685,055,462	-	-
Revenue Department receivable		100,077,917	95,268,474	-	-
Advance for shares subscription	11	-	60,000,000	-	60,000,000
Investment properties	4.3	55,788,305	55,788,305	3,143,658	3,143,658
Property, plant and equipment	4.3, 12	14,731,850,030	26,535,629,122	33,591,705	36,104,708
Right-of-use assets	4.3, 13	405,026,821	543,885,223	37,603,114	47,079,918
Goodwill	14	80,925,334	163,476,324	-	-
Intangible assets	14	1,171,815,137	3,300,020,027	9,357,332	9,816,498
Deferred tax assets	22	55,203,320	53,361,647	27,402,663	27,046,695
Derivative assets	25	370,806,615	53,520,392	-	-
Other non-current assets		182,523,595	111,386,156	26,427,148	39,107,029
Total non-current assets		25,111,601,226	34,918,538,468	14,670,355,706	17,320,706,697
Total assets		32,331,461,669	42,485,354,234	17,000,749,276	18,963,859,911

Liabilities and equity	Note	Consolidated financial statements		Separate financial statements	
		31 December		31 December	
		2022	2021	2022	2021
		(in Baht)			
<i>Current liabilities</i>					
Short-term loans from financial institutions	15	481,652,486	1,644,687,925	-	1,219,551,025
Short-term loans from related parties	4.3	-	-	1,266,700,000	95,000,000
Trade and other current payables	4.3	1,692,724,560	1,681,236,038	174,943,143	381,430,809
Unearned revenues	4.3	354,186,838	403,626,390	6,164,209	7,094,489
Payable for purchases of assets	4.3	35,602,337	50,920,441	175,258	-
Payables for share subscription	10	80,232,500	142,023,500	-	-
Retention payables		82,441,728	343,872,627	3,325,463	2,121,778
Current portion of long-term loans	15	859,742,499	1,671,895,542	28,526,034	28,503,508
Current portion of debentures	15	906,576,620	2,797,530,605	906,576,620	2,797,530,605
Current portion of lease liabilities	4.3, 15	48,321,331	43,887,801	20,794,078	19,236,757
Derivative liabilities	25	7,606,018	6,375,293	-	6,375,293
Income tax payable		115,200,379	22,870,422	64,302,047	-
Other current liabilities		139,747,437	244,670,017	35,401,211	17,301,632
Total current liabilities		4,804,034,733	9,053,596,601	2,506,908,063	4,574,145,896
<i>Non-current liabilities</i>					
Long-term loans	15	10,194,011,674	15,487,804,240	1,679,478,816	308,007,919
Debentures	15	2,237,556,191	3,142,260,354	2,237,556,191	3,142,260,354
Retention payables		23,890,039	17,819,979	166,423	604,265
Lease liabilities	4.3, 15	414,215,260	522,807,375	13,480,302	25,073,134
Deferred tax liabilities	22	136,446,352	256,588,537	-	-
Provisions for employee benefit	16	121,405,115	110,151,361	64,945,887	61,055,144
Provision for decommissioning costs of buildings and power plants	17	194,273,533	342,405,666	-	-
Derivative liabilities	25	53,472,770	257,881,409	53,472,770	50,414,138
Other non-current financial liabilities		618,571	618,571	618,571	618,571
Other non-current liabilities		11,798,867	10,198,118	17,614	572,724
Total non-current liabilities		13,387,688,372	20,148,535,610	4,049,736,574	3,588,606,249
Total liabilities		18,191,723,105	29,202,132,211	6,556,644,637	8,162,752,145

The accompanying notes form an integral part of these financial statements.

The accompanying notes form an integral part of these financial statements.



Statement of financial position

Gunkul Engineering Public Company Limited and its Subsidiaries

Liabilities and equity	Note	Consolidated		Separate	
		financial statements		financial statements	
		31 December		31 December	
		2022	2021	2022	2021
(in Baht)					
Equity					
Share capital					
Authorised share capital					
(8,882,530,974 ordinary shares, par value at Baht 0.25 per share)		2,220,632,743	2,220,632,743	2,220,632,743	2,220,632,743
Issued and paid-up share capital					
(8,882,530,974 ordinary shares, par value at Baht 0.25 per share)		2,220,632,743	2,220,632,743	2,220,632,743	2,220,632,743
Additional paid in capital:					
Premium on ordinary shares	18	5,179,473,454	5,179,473,454	5,179,473,454	5,179,473,454
Share premium on treasury shares	18	121,791,814	121,791,814	121,791,814	121,791,814
Difference arising from business combination under common control		(467,953,968)	(467,953,968)	-	-
Deficit from changes in ownership interest in subsidiary	11	(222,374,732)	(205,957,015)	-	-
Retained earnings					
Appropriated					
Legal reserve	18	222,559,000	222,559,000	222,559,000	222,559,000
Unappropriated		7,584,421,191	6,172,752,229	2,699,647,628	3,056,650,755
Other components of equity	18	(561,548,774)	(121,689,324)	-	-
Equity attributable to owners of the parent		14,077,000,728	13,121,608,933	10,444,104,639	10,801,107,766
Non-controlling interests	11	62,737,836	161,613,090	-	-
Total equity		14,139,738,564	13,283,222,023	10,444,104,639	10,801,107,766
Total liabilities and equity		32,331,461,669	42,485,354,234	17,000,749,276	18,963,859,911

The accompanying notes form an integral part of these financial statements.

Statement of comprehensive income

Gunkul Engineering Public Company Limited and its Subsidiaries

	Note	Consolidated		Separate	
		financial statements		financial statements	
		Year ended 31 December		Year ended 31 December	
		2022	2021	2022	2021
(in Baht)					
Revenue					
Revenue from sale	4.1	1,829,215,924	1,474,969,518	694,512,476	1,553,042,920
Revenue from sale of electricity		2,833,331,551	3,387,509,619	-	-
Revenue from rendering of services	4.1	297,862,553	223,635,901	21,200,949	16,229,491
Revenue from construction services		1,478,392,338	1,888,968,782	-	62,230,516
Revenue from sale of assets under finance lease	7	451,367,246	970,089,249	-	-
Revenue from adder		615,520,852	1,372,988,568	-	-
Dividend income	4.1, 10, 11	-	-	1,373,870,373	2,667,588,121
Net foreign exchange gain		-	99,712,931	7,949,476	30,028,544
Interest income	4.1	12,042,103	11,027,694	29,745,247	52,838,334
Gain on change in fair value of derivatives		618,030,401	377,396,683	2,694,761	102,702,664
Gain on sale of investment in subsidiary	11	-	-	435,420,279	-
Gain on change in ownership interest in subsidiaries to joint ventures	10, 11	1,330,723,227	-	-	-
Other income	4.1	48,617,999	61,830,864	5,286,752	15,544,266
Total revenue		9,515,104,194	9,868,129,809	2,570,680,313	4,500,204,856
Expenses					
Cost of sale	4.2, 9	1,440,362,559	1,174,979,863	626,675,265	1,361,733,961
Cost of sale of electricity	4.2	1,561,575,564	1,895,975,490	-	-
Cost of rendering of services	4.2	57,866,916	59,990,549	7,987,789	3,379,765
Cost of construction services	4.2	1,258,583,121	1,571,729,057	-	39,302,264
Cost of sale of assets under finance lease	7	408,048,456	870,825,265	-	-
Selling expenses		71,990,807	61,773,369	5,896,310	25,815,845
Administrative expenses and others	4.2	954,891,441	910,307,379	360,310,576	398,761,797
Net foreign exchange loss		92,686,767	-	-	-
Loss on capital reduction of subsidiary	11	-	130,503,892	96,692	130,503,892
Total expenses		5,846,005,631	6,676,084,864	1,000,966,632	1,959,497,524
Share of profit of associates and joint ventures accounted for using equity method					
	10	510,642,429	217,836,997	-	-
Profit before finance costs and income tax expense		4,179,740,992	3,409,881,942	1,569,713,681	2,540,707,332
Finance costs	4.2, 21	864,621,860	970,526,311	261,117,627	340,841,686
Profit before income tax expense		3,315,119,132	2,439,355,631	1,308,596,054	2,199,865,646
Tax expense	22	300,741,190	187,837,750	66,748,912	12,458,498
Profit for the year		3,014,377,942	2,251,517,881	1,241,847,142	2,187,407,148

The accompanying notes form an integral part of these financial statements.



Statement of comprehensive income

Gunkul Engineering Public Company Limited and its Subsidiaries

	Note	Consolidated		Separate	
		financial statements		financial statements	
		Year ended 31 December		Year ended 31 December	
		2022	2021	2022	2021
(in Baht)					
Other comprehensive income (expense)					
<i>Items that will be reclassified</i>					
<i>subsequently to profit or loss</i>					
Exchange differences on translating foreign operations		(439,859,450)	258,656,434	-	-
Total items that will be reclassified					
subsequently to profit or loss		(439,859,450)	258,656,434	-	-
<i>Items that will not be reclassified to profit or loss</i>					
Loss on remeasurements of defined benefit plans	16	-	(13,893,041)	-	(7,997,395)
Income tax relating to items that will not be reclassified to profit or loss	22	-	2,778,608	-	1,599,479
Total items that will not be reclassified to profit or loss		-	(11,114,433)	-	(6,397,916)
Other comprehensive income (expense) for the year, net of tax		(439,859,450)	247,542,001	-	(6,397,916)
Total comprehensive income (expense) for the year		2,574,518,492	2,499,059,882	1,241,847,142	2,181,009,232
Profit attributable to:					
Owners of parent		3,010,519,230	2,229,270,274	1,241,847,142	2,187,407,148
Non-controlling interests	11	3,858,712	22,247,607	-	-
Profit for the year		3,014,377,942	2,251,517,881	1,241,847,142	2,187,407,148
Total comprehensive income (expense) attributable to:					
Owners of parent		2,570,659,780	2,476,812,275	1,241,847,142	2,181,009,232
Non-controlling interests	11	3,858,712	22,247,607	-	-
Total comprehensive income (expense) for the year		2,574,518,492	2,499,059,882	1,241,847,142	2,181,009,232
Basic earnings per share	23	0.34	0.25	0.14	0.25

The accompanying notes form an integral part of these financial statements.



Statement of changes in equity

Gunkul Engineering Public Company Limited and its Subsidiaries

Consolidated financial statements

										Other components			
										of equity			
										Exchange			
										differences			
										on	Equity		
										translating	attributable to	Non-	
										financial	owners of	controlling	Total
										statements	the parent	interests	equity
Note	Issued and paid-up share capital	Treasury shares	Share premium	Share premium on treasury share	Difference arising from business combination under common control	Deficit from changes in ownership interests in subsidiary	Retained earnings						
							Legal reserve	Treasury shares reserve	Unappropriated				
							(in Baht)						
Year ended 31 December 2021													
Balance at 1 January 2021	2,220,632,743	(304,674,256)	5,179,473,454	-	(467,953,968)	(205,957,015)	222,559,000	304,674,256	5,781,434,415	(380,345,758)	12,349,842,871	125,470,235	12,475,313,106
Transactions with owners, recorded directly in equity													
Contributions by and distributions to owners													
Treasury shares sold	-	304,674,256	-	121,791,814	-	-	-	(304,674,256)	304,674,256	-	426,466,070	-	426,466,070
Subsidiary paid dividend	-	-	-	-	-	-	-	-	-	-	-	(4,039,852)	(4,039,852)
Issue of ordinary shares in subsidiary	-	-	-	-	-	-	-	-	-	-	-	17,935,100	17,935,100
Dividend paid to shareholders	24	-	-	-	-	-	-	-	(2,131,512,283)	-	(2,131,512,283)	-	(2,131,512,283)
Total contributions by and distributions to owners													
	-	304,674,256	-	121,791,814	-	-	-	(304,674,256)	(1,826,838,027)	-	(1,705,046,213)	13,895,248	(1,691,150,965)
Total transactions with owners, recorded directly in equity													
	-	304,674,256	-	121,791,814	-	-	-	(304,674,256)	(1,826,838,027)	-	(1,705,046,213)	13,895,248	(1,691,150,965)
Comprehensive income (expense) for the year													
Profit	-	-	-	-	-	-	-	-	2,229,270,274	-	2,229,270,274	22,247,607	2,251,517,881
Other comprehensive income (expense)	-	-	-	-	-	-	-	-	(11,114,433)	258,656,434	247,542,001	-	247,542,001
Total comprehensive income (expense) for the year	-	-	-	-	-	-	-	-	2,218,155,841	258,656,434	2,476,812,275	22,247,607	2,499,059,882
Balance at 31 December 2021	2,220,632,743	-	5,179,473,454	121,791,814	(467,953,968)	(205,957,015)	222,559,000	-	6,172,752,229	(121,689,324)	13,121,608,933	161,613,090	13,283,222,023



Statement of changes in equity

Gunkul Engineering Public Company Limited and its Subsidiaries

Consolidated financial statements											
Note	Issued and paid-up share capital	Share premium	Share premium on treasury share	Difference arising from business combination under common control	Deficit from changes in ownership interests in subsidiary	Retained earnings		Other components of equity	Equity attributable to owners of the parent	Non- controlling interests	Total equity
						Legal reserve	Unappropriated	Exchange			
								differences on translating financial statements			
(in Baht)											
Year ended 31 December 2022											
Balance at 1 January 2022	2,220,632,743	5,179,473,454	121,791,814	(467,953,968)	(205,957,015)	222,559,000	6,172,752,229	(121,689,324)	13,121,608,933	161,613,090	13,283,222,023
Transactions with owners, recorded directly in equity											
Contributions by and distributions to owners											
Acquisition of non-controlling interests											
without a change in control	11	-	-	-	-	(16,417,717)	-	-	(16,417,717)	(103,582,283)	(120,000,000)
Subsidiary paid dividend		-	-	-	-	-	-	-	-	(5,059,201)	(5,059,201)
Issue of ordinary shares in subsidiary		-	-	-	-	-	-	-	-	9,999,900	9,999,900
Decrease in share capital of subsidiary		-	-	-	-	-	-	-	-	(4,092,382)	(4,092,382)
Dividend paid to shareholders	24	-	-	-	-	-	(1,598,850,268)	-	(1,598,850,268)	-	(1,598,850,268)
Total contributions by and distributions to owners		-	-	-	(16,417,717)	-	(1,598,850,268)	-	(1,615,267,985)	(102,733,966)	(1,718,001,951)
Total transactions with owners, recorded directly in equity											
		-	-	-	(16,417,717)	-	(1,598,850,268)	-	(1,615,267,985)	(102,733,966)	(1,718,001,951)
Comprehensive income (expense) for the year											
Profit		-	-	-	-	-	3,010,519,230	-	3,010,519,230	3,858,712	3,014,377,942
Other comprehensive income (expense)		-	-	-	-	-	-	(439,859,450)	(439,859,450)	-	(439,859,450)
Total comprehensive income (expense) for the year		-	-	-	-	-	3,010,519,230	(439,859,450)	2,570,659,780	3,858,712	2,574,518,492
Balance at 31 December 2022		2,220,632,743	5,179,473,454	121,791,814	(467,953,968)	(222,374,732)	7,584,421,191	(561,548,774)	14,077,000,728	62,737,836	14,139,738,564



Statement of changes in equity

Gunkul Engineering Public Company Limited and its Subsidiaries

Separate financial statements

		Issued and		Share	Retained earnings			
		paid-up	Treasury	Share	premium	Treasury		Total
<i>Note</i>	share capital	shares	premium	on treasury	Legal	shares	Unappropriated	equity
				share	reserve	reserve		
					(in Baht)			
Year ended 31 December 2021								
Balance at 1 January 2021	2,220,632,743	(304,674,256)	5,179,473,454	-	222,559,000	304,674,256	2,702,479,550	10,325,144,747
Transactions with owners, recorded directly in equity								
Contributions by and distributions to owners								
Treasury shares sold	-	304,674,256	-	121,791,814	-	(304,674,256)	304,674,256	426,466,070
Dividend paid to shareholders	24	-	-	-	-	-	(2,131,512,283)	(2,131,512,283)
Total contributions by and distributions to owner	-	304,674,256	-	121,791,814	-	(304,674,256)	(1,826,838,027)	(1,705,046,213)
Total transactions with owners, recorded directly in equity	-	304,674,256	-	121,791,814	-	(304,674,256)	(1,826,838,027)	(1,705,046,213)
Comprehensive income (expense) for the year								
Profit	-	-	-	-	-	-	2,187,407,148	2,187,407,148
Other comprehensive income (expense)	-	-	-	-	-	-	(6,397,916)	(6,397,916)
Total comprehensive income (expense) for the year	-	-	-	-	-	-	2,181,009,232	2,181,009,232
Balance at 31 December 2021	2,220,632,743	-	5,179,473,454	121,791,814	222,559,000	-	3,056,650,755	10,801,107,766



Statement of changes in equity

Gunkul Engineering Public Company Limited and its Subsidiaries

Separate financial statements

		Issued and	Share	Share	Retained earnings		
	Note	paid-up	premium	on treasury	Legal	Unappropriated	Total
		share capital	premium	share	reserve		equity



Statement of cash flows

Gunkul Engineering Public Company Limited and its Subsidiaries

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2022	2021	2022	2021
	(in Baht)			
Cash flows from operating activities				
Profit for the year	3,014,377,942	2,251,517,881	1,241,847,142	2,187,407,148
<i>Adjustments to reconcile profit to cash receipts (payments)</i>				
Tax expense	300,741,190	187,837,750	66,748,912	12,458,498
Finance costs	864,621,860	970,526,311	261,117,627	340,841,686
Depreciation and amortisation	1,312,593,467	1,541,984,302	32,674,625	30,841,553
Provisions for employee benefits	13,928,691	13,260,381	6,053,663	1,910,410
Unrealised (gain) loss on foreign exchange	91,540,950	(4,891,608)	(338,389)	(10,848,979)
Gain on change in fair value of derivatives	(618,030,401)	(377,396,683)	(2,694,761)	(102,702,664)
Share of profit of associates and joint ventures				
accounted for using equity method	(510,642,429)	(217,836,997)	-	-
Dividend income	-	-	(1,373,870,373)	(2,667,588,121)
Reversal of impairment loss recognised in profit or loss	(1,878,624)	(5,597,502)	(378,224)	(5,597,502)
Impairment loss on investment in subsidiary	-	-	9,728,668	13,512,943
(Reversal of) loss on inventories devaluation	(137,198)	225,490	-	-
(Gain) loss on disposal of property, plant and equipment	45,608,411	5,872,810	(182,737)	3,085,139
Gain on disposal of other debts securities	(1,576,222)	(888,007)	(1,541,795)	(486,858)
(Gain) loss on fair value adjustment	(247,610)	144,678	(20,291)	-
Gain on sale of investment in subsidiary	-	-	(435,420,279)	-
Gain on change in ownership interest				
in subsidiaries to joint ventures	(1,330,723,227)	-	-	-
Loss on capital reduction of subsidiary	-	130,503,892	96,692	130,503,892
Interest income	(12,042,103)	(11,027,694)	(29,745,247)	(52,838,334)
	3,168,134,697	4,484,235,004	(225,924,767)	(119,501,189)
<i>Changes in operating assets and liabilities</i>				
Short-term deposits from financial institution				
pledged as collateral	(667,065,341)	(300,140,637)	-	-
Trade and other current receivables	149,414,951	1,374,641,989	121,529,965	783,426,570
Lease receivables	28,878,942	41,774,526	-	-
Unbilled revenue	(47,179,264)	128,795,905	-	-
Revenue Department receivable	(40,485,690)	275,533,808	2,524,087	(5,130,574)
Inventories	(175,130,030)	(171,729,106)	129,267,075	26,589,167
Other current assets	(51,401,237)	107,089,847	(11,682,533)	67,852,181
Other non-current financial assets	32,889,942	(22,640,452)	(5,000)	776,009
Other non-current assets	(65,300,144)	15,578,581	-	33,000,000
Trade and other current payables	49,869,154	(820,184,216)	(188,241,802)	(132,822,244)
Unearned revenues	(49,439,552)	3,953,584	(930,280)	(27,105,878)
Retention payables	3,713,353	(811,253)	765,843	(3,974,257)
Other current liabilities	(63,724,435)	74,726,739	18,099,577	(6,457,563)
Provisions for employees benefits	(2,162,920)	(3,540,798)	(2,162,920)	(3,315,920)
Other non-current liabilities	(41,331,771)	2,090,489	(555,110)	562,240
Net cash generated from (used in) operating activities	2,229,680,655	5,189,374,010	(157,315,865)	613,898,542
Taxes received (paid)	(192,813,906)	(180,328,634)	9,877,049	5,438,821
Net cash from (used in) operating activities	2,036,866,749	5,009,045,376	(147,438,816)	619,337,363

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2022	2021	2022	2021
	(in Baht)			
Cash flows from investing activities				
Payment for incremental of capital in subsidiaries	-	-	(3,015,322,925)	(765,789,287)
Proceeds from reduction of shares in subsidiary	-	-	22,080,939	766,284,172
Proceeds from incremental of shares in non-controlling interest	9,999,900	17,935,100	-	-
Proceeds from disposal of investment in subsidiaries	-	-	6,116,820,000	-
Proceeds from change in ownership interest in subsidiaries				
with a change in control	5,000,000,000	-	-	-
Acquisition of joint venture	-	(107,976,499)	-	-
Payment for incremental of capital in joint ventures	(66,249,970)	(499,990)	(49,999,990)	-
Payment for payable for share subscription	(61,791,000)	(35,906,694)	-	(22,584,337)
Proceeds from sale of other debts securities	1,746,576,222	2,578,360,331	1,651,541,795	2,341,987,158
Acquisition of other debts securities	(2,224,242,547)	(2,434,500,300)	(2,047,442,547)	(2,259,500,300)
Payment for advance for shares subscription	-	(60,000,000)	-	(60,000,000)
Acquisition of investment property	-	(55,788,305)	-	-
Acquisition of property, plant and equipment	(839,530,641)	(2,952,402,101)	(8,155,701)	(3,425,779)
Acquisition of intangible assets	(17,014,884)	(8,422,244)	(2,461,062)	(6,192,600)
Proceeds from sale of property, plant and equipment	10,452,558	5,165,707	934,613	30,675
Proceeds from sale of intangible assets	347,254	-	-	-
Proceeds from loans to related parties	-	-	5,685,411,182	2,610,237,372
Payment for loans to related parties	-	-	(5,914,575,000)	(366,600,000)
Dividend received	604,141,515	216,773,649	1,373,870,373	2,667,588,121
Interest received	11,821,658	11,770,309	24,901,779	56,595,404
Net cash from (used in) investing activities	4,174,510,065	(2,825,491,037)	3,837,603,456	4,958,630,599

Cash flows from financing activities				
Payment of change in ownership interest in subsidiaries				
without a change in control	(60,000,000)	-	(60,000,000)	-
Payment of capital reduction in subsidiary				
to non-controlling interests	(4,092,382)	-	-	-
Repayment of short-term loans	(1,151,030,111)	(3,018,647,324)	(1,220,708,850)	(3,372,379,456)
Proceeds from loans from related parties	-	-	1,209,700,000	21,000,000
Repayment of loans from related parties	-	-	(38,000,000)	(108,000,000)
Proceeds from long-term loans	1,957,410,061	2,433,105,808	1,400,000,000	-
Repayment of long-term loans	(1,223,319,875)	(1,612,982,675)	(28,800,000)	(28,800,000)
Proceeds from debentures	-	1,791,900,000	-	1,791,900,000
Repayment of debentures	(2,800,000,000)	(1,819,000,000)	(2,800,000,000)	(1,819,000,000)
Payment of lease liabilities	(71,355,842)	(74,739,303)	(20,744,464)	(17,214,350)
Proceeds from sale of treasury shares	-	426,466,070	-	426,466,070
Dividend paid to shareholders	(1,598,433,931)	(2,131,106,784)	(1,598,433,931)	(2,131,106,784)
Dividend paid to non-controlling interests	(5,059,201)	(4,039,852)	-	-
Interest paid	(774,237,642)	(887,131,249)	(273,794,324)	(326,491,867)
Net cash used in financing activities	(5,730,118,923)	(4,896,175,309)	(3,430,781,569)	(5,563,626,387)

The accompanying notes form an integral part of these financial statements.

The accompanying notes form an integral part of these financial statements.



Statement of cash flows

Gunkul Engineering Public Company Limited and its Subsidiaries

	Consolidated financial statements		Separate financial statements	
	Year ended 31 December		Year ended 31 December	
	2022	2021	2022	2021
	(in Baht)			
Net increase (decrease) in cash and cash equivalents	481,257,891	(2,712,620,970)	259,383,071	14,341,575
Effect of exchange rate changes on cash and cash equivalents	(11,031,992)	49,622,520	2,465,704	5,990,477
Cash and cash equivalents as at 1 January	1,728,926,133	4,391,924,583	360,005,802	339,673,750
Cash and cash equivalents at 31 December	2,199,152,032	1,728,926,133	621,854,577	360,005,802
Non-cash transactions				
Receivable for sales of property, plant and equipment	529,324	-	511,979	-
Payables for purchases of property, plant and equipment	35,602,337	50,920,441	175,258	-
Acquisition of assets under finance lease contracts	31,555,359	20,216,823	10,708,953	8,982,491
Finance costs and front end fee capitalise as assets	5,322,602	249,338	-	-
Provisions for decommission capitalise as assets	6,297,302	-	-	-
Dividend payable	416,337	405,500	416,337	405,500
Payables for share subscription	80,232,500	142,023,500	-	-

Notes to the financial statements

Gunkul Engineering Public Company Limited and its Subsidiaries

For the year ended 31 December 2022

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These notes form an integral part of the financial statements.

The financial statements issued for Thai statutory and regulatory reporting purposes are prepared in the Thai language. These English language financial statements have been prepared from the Thai language statutory financial statements, and were approved and authorised for issue by the Board of Directors on 27 February 2023.

1 General information

Gunkul Engineering Public Company Limited, the “Company”, is incorporated in Thailand and was listed on the Stock Exchange of Thailand on 19 October 2010. The Company’s registered office at 1177 Pearl Bangkok Building, 8th floor, Phahonyothin Road, Phaya Thai district, Phaya Thai, Bangkok.

The Company’s major shareholder during the financial year was Gunkul Group Co., Ltd. (49.94% shareholding) which was incorporated in Thailand. The principal shareholder of the Company’s major shareholder is Dhumrongpiyawut family.

The principal activities of the Company and its subsidiaries, the “Group” are manufacturing and distribution of equipments for electrical systems, construction and investing in the generating and selling electricity business. Details of the Company’s subsidiaries as at 31 December 2022 and 2021 are given in note 11.

2 Basis of preparation of the financial statements

The financial statements are prepared in accordance with Thai Financial Reporting Standards (“TFRS”), guidelines promulgated by the Federation of Accounting Professions and applicable rules and regulations of the Thai Securities and Exchange Commission. The financial statements are presented in Thai Baht, which is the Company’s functional currency. The accounting policies, described in the note 3, have been applied consistently to all periods presented in these financial statements.

The preparation of financial statements in conformity with TFRS requires management to make judgements, estimates and assumptions that affect the application of the Group’s accounting policies. Actual results may differ from these estimates. Estimates and underlying assumptions that are described in note 3 are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively. Relevant information is included in the following notes:

- 3(m) and 7 Whether an arrangement contains a lease; reasonably certain to exercise extension or termination options and sub-lease;
- 3(s) and 8 Determination of stage of completion;
- 14 Key assumptions underlying recoverable amounts of the goodwill;
- 16 Key actuarial assumptions;
- 17 Recognition and measurement of provision for decommissioning costs of buildings and power plant

In addition, the Group has not early adopted a number of revised TFRS, which are not yet effective for the current period in preparing these financial statements. The Group has assessed the potential initial impact on the financial statements of these revised TFRS and expects that there will be no material impact on the financial statements in the period of initial application.

3 Significant accounting policies

(a) Basis of consolidation

The consolidated financial statements relate to the Company and its subsidiaries (together referred to as the “Group”) and the Group’s interests in associates and joint ventures.

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

When there is a change in the Group’s interest in a subsidiary that do not result in a loss of control, any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received from the acquisition or disposal of the non-controlling interests with no change in control are accounted for as other surpluses/deficits in shareholders’ equity.

When the Group loses control over a subsidiary, it derecognises the assets and liabilities, any related non-controlling interests and other components of equity of the subsidiary. Any resulting gain or loss is recognised in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

The Group recognised investments in associates and joint ventures using the equity method in the consolidated financial statements. They are initially recognised at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group’s dividend income and share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases.

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated on consolidation. Unrealised gains arising from transactions with associates and joint ventures are eliminated against the investment to the extent of the Group’s interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Business combinations

The Group applies the acquisition method when the Group assess that the acquired set of activities and assets include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output. The acquisition date is the date on which control is transferred to the Group, other than business combinations with entities under common control. Expenses in connection with a business combination are recognised as incurred.

Goodwill is measured as the fair value of the consideration transferred including the recognised amount of any non-controlling interest in the acquiree, less net fair value of the identifiable assets acquired and liabilities assumed. Any gain on bargain purchase is recognised in profit or loss immediately.

Consideration transferred includes assets transferred, liabilities incurred by the Group to the previous owners of the acquiree, any contingent consideration and equity interests issued by the Group.



Any contingent consideration is measured at fair value at the date of acquisition, and remeasured at fair value at each reporting date. Subsequent changes in the fair value are recognised in profit or loss.

A contingent liability of the acquiree is assumed in a business combination only if such a liability represents a present obligation and arises from a past event, and its fair value can be measured reliably.

Business combination under common control are accounted for using a method similar to the pooling of interest method, by recognising assets and liabilities of the acquired businesses at their carrying amounts in the consolidated financial statements of the ultimate parent company at the transaction date. The difference between the carrying amount of the acquired net assets and the consideration transferred is recognised as surplus or deficit from business combinations under common control in shareholder's equity. The surplus or deficit will be written off upon divestment of the businesses acquired. The results from operations of the acquired businesses will be included in the consolidated financial statements of the acquirer from the beginning of the comparative period or the moment the businesses came under common control, whichever date is later, until control ceases.

(b) Investments in subsidiaries, associates and joint ventures

Investments in subsidiaries, associates and joint ventures in the separate financial statements are measured at cost less allowance for impairment losses. Dividend income is recognised in profit or loss on the date on which the Group's right to receive payment is established. If the Company disposes of part of its investment, the deemed cost of the part sold is determined using the weighted average method. Gains and losses on disposal of the investments are recognised in profit or loss.

(c) Foreign currencies

Transactions in foreign currencies including non-monetary assets and liabilities denominated in foreign currencies are translated to the respective functional currencies of each entity in the Group at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate at the reporting date. Non-monetary assets and liabilities measured at fair value in foreign currencies are translated at the exchange rates at the dates that fair value was determined.

Foreign currency differences are generally recognised in profit or loss.

Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to Thai Baht at the exchange rates at the reporting date. The revenues and expenses of foreign operations, excluding foreign operations in hyperinflationary economies, are translated to Thai Baht at rates approximating the exchange rates at the dates of the transactions.

Foreign exchange differences are recognised in other comprehensive income and accumulated in the translation reserve until disposal of the investment, except to the extent that the translation difference is allocated to non-controlling interests.

When a foreign operation is disposed of in its entirety or partially such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal.

When the settlement of a monetary item receivable from or payable to a foreign operation is neither planned nor likely in the foreseeable future, exchange gains and losses arising from such a monetary item are considered to form part of a net investment in a foreign operation and are recognised in other comprehensive income, and presented in the translation reserve in equity until disposal of the investment.

(d) Financial instruments

(d.1) Classification and measurement

Debt securities issued by the Group are initially recognised when they are originated. Other financial assets and financial liabilities (except trade accounts receivables (see note 4(f))) are initially recognised when the Group becomes a party to the contractual provisions of the instrument, and measured at fair value plus or minus, for an item not at fair value through profit or loss (FVTPL), transaction costs that are directly attributable to its acquisition or issue.

On initial recognition, a financial asset is classified as measured at: amortised cost; fair value through other comprehensive income (FVOCI); or FVTPL. Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified prospectively from the reclassification date.

On initial recognition, financial liabilities are classified as measured at amortised cost using the effective interest method or FVTPL. Interest expense, foreign exchange gains and losses and any gain or loss on derecognition are recognised in profit or loss.

Financial assets measured at amortised costs are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by expected credit losses. Interest income, foreign exchange gains and losses, expected credit loss and any gain or loss on derecognition are recognised in profit or loss.

(d.2) Derecognition and offset

The Group derecognises a financial asset when the contractual rights to receive the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.

The difference between the carrying amount extinguished and the consideration received or paid is recognised in profit or loss.

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and the Group intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

(d.3) Derivatives

Derivative are recognised at fair value and remeasured at fair value at each reporting date. The gain or loss on remeasurement to fair value is recognised immediately in profit or loss.

(d.4) Impairment of financial assets other than trade accounts receivables

The Group recognises ECLs equal to 12-month ECLs unless there has been a significant increase in credit risk of the financial instrument since initial recognition or credit-impaired financial assets, in which case the loss allowance is measured at an amount equal to lifetime ECLs.



ECLs are a probability-weighted estimate of credit losses based on forward-looking and historical experience. Credit losses are measured as the present value of all cash shortfalls discounted by the effective interest rate of the financial asset.

The Group considers a financial asset to have low credit risk when its credit rating is equivalent to the globally understood definition of 'investment grade'. The Group recognises ECLs for low credit risk financial asset as 12-month ECLs.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due, significant deterioration in credit rating, significant deterioration in the operating results of the debtor and existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

The Group considers a financial asset to be in default when:

- the debtor is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or
- the financial asset is more than 90 days past due.

(d.5) Write offs

The gross carrying amount of a financial asset is written off when the Group has no reasonable expectations of recovering. Subsequent recoveries of an asset that was previously written off, are recognised as a reversal of impairment in profit or loss in the period in which the recovery occurs.

(d.6) Interest

Interest income and expense is recognised in profit or loss using the effective interest method. In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortised cost of the liability.

(e) Cash and cash equivalents

Cash and cash equivalents comprise cash balances, call deposits and highly liquid short-term investments which has a maturity of three months or less from the date of acquisition.

(f) Trade and other accounts receivable

A receivable is recognised when the Group has an unconditional right to receive consideration. A receivable is measured at transaction price less allowance for expected credit loss. Bad debts are written off when incurred.

The Group estimates lifetime expected credit losses (ECLs), using a provision matrix to find ECLs rate. This method groups the debtors based on shared credit risk characteristics and past due status, taking into account historical credit loss data, adjusted for factors that are specific to the debtors and an assessment of both current economic conditions and forward-looking general economic conditions at the reporting date.

(g) Inventories

Inventories are measured at the lower of cost and net realisable value. Cost is calculated using the first in first out principle. Cost includes direct costs incurred in acquiring the inventories. In the case of manufactured inventories and work-in-progress, cost includes an appropriate share of production overheads based on normal operating capacity. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to complete and to make the sale.

(h) Unbilled revenue

Unbilled revenue represents the gross unbilled amount expected to be collected from customers for contract work performed to date. They are measured at costs incurred plus profits recognised to date (see note 8) less progress billings and recognised losses, presented as current asset in the statement of financial position.

(i) Investment properties

Investment properties are measured at cost less accumulated depreciation and impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the investment property.

(j) Property, plant and equipment

Property, plant and equipment are measured at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes capitalised borrowing costs, and the costs of dismantling and removing the items and restoring the site on which they are located. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

Differences between the proceeds from disposal and the carrying amount of property, plant and equipment are recognised in profit or loss.

Subsequent costs

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item when the future economic benefits embodied within the part will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

Depreciation

Depreciation is calculated on a straight-line basis over the estimated useful lives of each component of an asset and recognised in profit or loss. No depreciation is provided on freehold land and assets under construction.

The estimated useful lives are as follows:

Building, building improvement and utility system	25 - 30 years
Machinery and equipment	5 - 25 years
Fixtures and office equipments	3 - 5 years
Vehicles	8 - 10 years

(k) Goodwill

Goodwill is measured at cost less accumulated impairment losses. In respect of equity-accounted investee, the carrying amount of goodwill is included in the carrying amount of the investment.

(l) Intangible assets

Other intangible assets that have indefinite useful lives are measured at cost less impairment losses. Other intangible assets are measured at cost less accumulated amortisation and impairment losses. Subsequent expenditure is capitalised only when it will generate the future economic benefits. Amortisation is calculated on a straight-line basis over the estimated useful lives of intangible assets and recognised in profit or loss.



The estimated useful lives are as follows:

Software licences	3-5	years
Right to use electrical transmission line	20 and 25	years
Right to power purchase agreement and right to operate	20 and 25	years

(m) Leases

At inception of a contract, the Group assesses that a contract is, or contains, a lease when it conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

As a lessee

At commencement or on modification of a contract, the Group allocates the consideration in the contract to each lease component on the basis of its relative stand-alone prices of each component.

The Group recognises a right-of-use asset and a lease liability at the lease commencement date, except for leases of low-value assets and short-term leases which is recognised as an expense on a straight-line basis over the lease term.

Right-of-use asset is measured at cost, less any accumulated depreciation and impairment loss, and adjusted for any remeasurements of lease liability. The cost of right-of-use asset includes the initial amount of the lease liability adjusted for any prepaid lease payments, plus any initial direct costs incurred and an estimate of restoration costs, less any lease incentives received. Depreciation is charged to profit or loss on a straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment.

The lease liability is initially measured at the present value of all lease payments that shall be paid under the lease. The Group uses the Group's incremental borrowing rate to discount the lease payments to the present value. The Group determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a lease modification, or a change in the assessment of options specified in the lease. When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

As a lessor

At inception or on modification of a contract, the Group allocates the consideration in the contract to each component on the basis of their relative standalone selling prices.

At lease inception, the Group considers to classify a lease that transfers substantially all of the risks and rewards incidental to ownership of the underlying asset to lessees as a finance lease. A lease that does not meet this criteria is classified as an operating lease.

When the Group is an intermediate lessor, the Group classifies the sub-lease either as a finance lease or an operating lease with reference to the right-of-use asset arising from the head lease. In case of a head lease is a short-term lease, the sub-lease is classified as an operating lease. Those right-of-use assets are presented as investment properties.

The Group recognises finance lease receivables at the net investment of the leases, which includes the present value of the lease payments, and any unguaranteed residual value, discounted using the interest rate implicit in the lease. Finance lease income reflects a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

The Group recognises lease payments received under operating leases in profit or loss on a straight-line basis over the lease term as part of other income. Initial direct costs incurred in arranging an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as other income in the accounting period in which they are earned.

The Group estimates lifetime expected credit losses (ECLs), using a provision matrix to find ECLs rate. This method groups the lease receivables based on shared credit risk characteristics and past due status, taking into account historical credit loss data, adjusted for factors that are specific to the debtors and an assessment of both current economic conditions and forward-looking general economic conditions at the reporting date. The Group derecognises the lease receivables as disclosed in note 3(d).

(n) Impairment of non-financial assets

The carrying amounts of the Group's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated. For goodwill and intangible assets that have indefinite useful lives or are not yet available for use, the recoverable amount is estimated each year at the same time.

An impairment loss is recognised in profit or loss if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount.

The recoverable amount is the greater of the asset's value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

Impairment losses of assets recognised in prior periods is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss in respect of goodwill is not reversed. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(o) Employee benefits

Defined contribution plan

Obligations for contributions to the Group's provident funds are expensed as the related service is provided.

Defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated by estimating the amount of future benefit that employees have earned in the current and prior periods. The defined benefit obligations is discounted to the present value, which performed by a qualified actuary using the projected unit credit method.



Remeasurements of the net defined benefit liability, actuarial gain or loss are recognised immediately in OCI. The Group determines the interest expense on the net defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period, taking into account any changes in the net defined benefit liability during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognised in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognised immediately in profit or loss. The Group recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

The Group's net obligation in respect of long-term employee benefits is the amount of future benefit that employees have earned in return for their service in the current and prior periods. That benefit is discounted to determine its present value. Remeasurements are recognised in profit or loss in the period in which they arise.

Termination benefits are expensed at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group recognizes costs for a restructuring. If benefits are not expected to be settled wholly within 12 months of the end of the reporting period, then they are discounted.

Short-term employee benefits are expensed as the related service is provided. A liability is recognised for the amount expected to be paid if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(p) Provisions

A provision is recognised if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as a finance cost.

Provision for decommissioning costs of buildings and power plants

The Group recognises provision for decommissioning costs of the buildings or structures with the present value of the estimate of the eventual costs at the lease end date. The recognised provision for decommissioning costs are based on removal cost estimates, removal period, discount rate and future inflation rate. Provision for decommissioning and restoration are discounted to be present value, and are included as part of the assets.

(q) Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Group has access at that date. The fair value of a liability reflects its non-performance risk.

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: inputs for the asset or liability that are based on unobservable input.

The Group recognises transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

If an asset or a liability measured at fair value has a bid price and an ask price, then the Group measures assets and asset positions at a bid price and liabilities and liability positions at an ask price.

The best evidence of the fair value of a financial instrument on initial recognition is normally the transaction price – i.e. the fair value of the consideration given or received. If the Group determines that the fair value on initial recognition differs from the transaction price, the financial instrument is initially measured at fair value adjusted for the difference between the fair value on initial recognition and the transaction price and the difference is recognised in profit or loss immediately. However, for the fair value categorised as level 3, such difference is deferred and will be recognised in profit or loss on an appropriate basis over the life of the instrument or until the fair value level is transferred or the transaction is closed out.

(r) Treasury Shares

When share capital recognised as equity is repurchased, the amount of consideration paid, including directly attributable costs, is classified as treasury shares and recognised as a deduction from equity. An equal amount is appropriated from retained earnings and taken to a reserve for treasury shares within equity. When treasury shares are sold, the amount received is recognised as an increase in equity by crediting the cost of the treasury shares sold, calculated using the weighted average method, to the treasury shares account and transferring the equivalent amount back from reserve for treasury shares to retained earnings. Surpluses on the sale of treasury shares are taken directly to a separate category within equity, 'Share premium on treasury shares'. Net deficits on sale or cancellation of treasury shares are debited to retained earnings after setting off against any remaining balance of surplus on treasury shares.

(s) Revenue from contracts with customers

(1) Revenue recognition

Revenue is recognised when a customer obtains control of the goods or services in an amount that reflects the consideration to which the Group expects to be entitled, excluding those amounts collected on behalf of third parties, value added tax or other sales taxes and is after deduction of any trade discounts and volume rebates.

Sale of goods and services

Revenue from sales of goods is recognised on the date on which the goods are delivered to the customers. For the sales that permit the customers to return the goods, the Group estimates the returns based on the historical return data, does not recognise revenue and cost of sale for the estimated products to be returned. Revenue for rendering of services is recognised over time as the services are provided.

For bundled packages, the Group recognises revenue from sales of products and rendering of services separately if a product or service is separately identifiable from other items and a customer can benefit from it or the multiple services are rendered in different reporting periods. The consideration received is allocated based on their relative stand-alone selling prices.

Revenue from sale of electricity

Revenue from sale of electricity is recognised in profit or loss based on the units of sales delivered at the applicable tariff rates.

*Revenue from construction contracts*

Contract revenue includes the initial amount agreed in the contract plus any variations in contract work, claims and incentive payments to the extent that it is probable that they will result in revenue and can be measured reliably. As soon as the outcome of a construction contract can be estimated reliably, contract revenue and expenses are recognised in profit or loss in proportion to the stage of completion of the contract.

The stage of completion is assessed by reference to surveys of work performed. When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognised only to the extent of contract costs incurred that are likely to be recoverable. An expected loss on a contract is recognised immediately in profit or loss.

(2) Contract balances

Contract assets are recognised when the Group has recognised revenue before it has an unconditional right to receive consideration. The contract assets are measured at the amount of consideration that the Group is entitled to, less allowance for expected credit loss. The contract assets are classified as trade receivables when the Group has an unconditional right to receive consideration.

Contract liabilities are the obligation to transfer goods or services to the customer. The contract liabilities are recognised when the Group receives or has an unconditional right to receive non-refundable consideration from the customer before the Group recognises the related revenue.

A refund liability is the obligation to refund some or all of the consideration received from the customer and is measured at the amount the Group ultimately expects it will have to return to the customer. The refund liability is reassessed at each reporting date and make a corresponding change to the amount of revenue recognised.

(t) Income tax

Income tax expense for the year comprises current and deferred tax, which is recognised in profit or loss except to the extent that they relate to a business combination, or items recognised directly in equity or in other comprehensive income.

Current tax is recognised in respect of the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the temporary differences: the initial recognition of goodwill; the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss; and differences relating to investments in subsidiaries and joint ventures to the extent that it is probable that they will not reverse in the foreseeable future.

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities, using tax rates enacted or substantively enacted at the reporting date. Current deferred tax assets and liabilities are offset in the separate financial statements.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(u) Earnings per share

EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the period, adjusted for own shares held.

4 Related parties

A related party is a person or entity that has direct or indirect control or joint control, or has significant influence over the financial and managerial decision-making of the Group; a person or entity that are under common control or under the same significant influence as the Group; or the Group has direct or indirect control or joint control or has significant influence over the financial and managerial decision-making of a person or entity.

Relationships with subsidiaries, associates and joint ventures are described in notes 10 and 11. Other related parties that the Group had significant transactions with during the year were as follows:

Name of entities	Country of Incorporation	Nature of relationships
Gunkul Group Co., Ltd.	Thailand	Major shareholder
Rang-Ngern Solution Co., Ltd.	Thailand	Indirect subsidiary and/or common directors
Outgrow D Co.,Ltd. ⁽³⁾	Thailand	Indirect subsidiary and/or common directors
Gunkul Solar Power 1 Co., Ltd.	Thailand	Indirect subsidiary and/or common directors
Gunkul Solar Power 2 Co., Ltd.	Thailand	Indirect subsidiary and/or common directors
Future Electrical Control Co., Ltd.	Thailand	Indirect subsidiary and/or common directors
Joint Venture GPD & TEECL Co.,Ltd.	Thailand	Indirect subsidiary and/or common directors
Joint Venture FEC & PPB Co.,Ltd. ⁽²⁾	Thailand	Indirect subsidiary and/or common directors
Future Energy Corporation Co., Ltd.	Thailand	Indirect subsidiary and/or common directors
Gunkul Godungfaifaa Platform Co., Ltd. (Formerly Gunkul B2B Co., Ltd.)	Thailand	Indirect subsidiary and/or common directors
Gunkul International Investment (Singapore) Pte. Ltd.	Singapore	Indirect subsidiary and/or common directors
Gunkul Myanmar Central Power 1 Company Limited	Myanmar	Indirect subsidiary and/or common directors
Singapore An Yang Pte. Ltd.	Singapore	Indirect subsidiary and/or common directors
Singapore Yun Yang Pte. Ltd.	Singapore	Indirect subsidiary and/or common directors
G.K. Smart Farming Co., Ltd.	Thailand	Indirect subsidiary and/or common directors
G.K. Bio Extraction Co., Ltd.	Thailand	Indirect subsidiary and/or common directors
Future Power Construction Co., Ltd.	Thailand	Indirect subsidiary and/or common directors
Sendai Okura GD Daiichi Godo Kaisha	Japan	Indirect subsidiary
Kimitsu Mega Solar Godo Kaisha	Japan	Indirect subsidiary
Future Asset Management Kabushiki Kaisha	Japan	Indirect subsidiary
GD Solar Utsunomiya Godo Kaisha ⁽¹⁾	Japan	Indirect subsidiary
East Japan Solar 13 Godo Kaisha ⁽¹⁾	Japan	Indirect subsidiary
Tri Viet Hoa Binh Joint Stock Company	Vietnam	Indirect subsidiary
Bach Khoa A Chau Hoa Binh Joint Stock Company	Vietnam	Indirect subsidiary
Tri Viet Tay Ninh Joint Stock Company	Vietnam	Indirect subsidiary
Bach Khoa A Chau Tay Ninh Joint Stock Company	Vietnam	Indirect subsidiary



Name of entities	Country of Incorporation	Nature of relationships
Tan Chau Energy Joint Stock Company	Vietnam	Indirect subsidiary
INT Energy Pte. Ltd.	Singapore	Indirect subsidiary
Gunkul Trading and Agency Co., Ltd.	Thailand	Common directors
G.M.Supply and Construction Co., Ltd.	Thailand	Common directors
Gunkul Engineering (2000) Co., Ltd.	Thailand	Common directors
Great Miracle Asset Co., Ltd.	Thailand	Common directors
Great Miracle Asset 2 Co., Ltd.	Thailand	Common directors
Great Miracle Asset 3 Co., Ltd.	Thailand	Common directors
Great Miracle Asset 4 Co., Ltd.	Thailand	Common directors
Great Miracle Asset 5 Co., Ltd.	Thailand	Common directors
Great Miracle Asset 7 Co., Ltd.	Thailand	Common directors
Great Miracle Asset 8 Co., Ltd.	Thailand	Common directors
Great Miracle Asset 9 Co., Ltd.	Thailand	Common directors
Great Miracle Asset 10 Co., Ltd.	Thailand	Common directors
Great Miracle Asset 11 Co., Ltd.	Thailand	Common directors
Great Miracle Asset 13 Co., Ltd.	Thailand	Common directors
Great Miracle Asset 14 Co., Ltd.	Thailand	Common directors
Pranburi Boulevard Co., Ltd.	Thailand	Common directors
Noprakul Co., Ltd.	Thailand	Holding by the director
Gunkul Marine Line Co., Ltd.	Thailand	Holding by the director
Green Filed Energy Co., Ltd.	Thailand	Holding by the director
Kulnatee Co., Ltd.	Thailand	Holding by close relative of a director
P.M. Building Group Co., Ltd.	Thailand	Holding by close relative of a director
Thonglor 9 Co., Ltd. ⁽¹⁾	Thailand	Holding by major shareholder
Tech-Green Co., Ltd. ⁽²⁾	Thailand	Holding by major shareholder
Siam Future Co., Ltd	Thailand	Holding by major shareholder
Entirety Sap Co., Ltd. ⁽²⁾	Thailand	Holding by major shareholder
Happy Green 2558 Co., Ltd.	Thailand	Holding by major shareholder

⁽¹⁾ Sale of investment during the year 2021.

⁽²⁾ The liquidation was completed during the year 2021.

⁽³⁾ The liquidation was completed during the year 2022.

4.1 Significant revenue transactions for the years ended 31 December with related parties were as follows:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Revenue from sale				
Subsidiaries	-	-	228,595	489,202
Joint ventures	1,119	811	-	-
Other related parties	12	216	-	-
Total revenue from sale	1,131	1,027	228,595	489,202

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Revenue from rendering of services				
Revenue from operation and maintenance services				
Subsidiaries	-	-	1,706	3,759
Associate	11,917	28,945	-	-
Joint ventures	20,858	23,028	-	-
Management service income				
Subsidiaries	-	-	2,587	1,949
Joint ventures	8,178	5,748	8,178	5,748
Other services income				
Joint ventures	176	6	-	-
Other related parties	-	12	-	-
Total revenue from rendering of services	41,129	57,739	12,471	11,456
Dividend income				
Subsidiaries	-	-	769,729	2,450,814
Associate	-	-	53,568	71,350
Joint ventures	-	-	550,573	145,424
Total dividend income	-	-	1,373,870	2,667,588
Interest income				
Subsidiaries	-	-	27,820	52,250
Total interest income	-	-	27,820	52,250
Other income – rental income				
Subsidiaries	-	-	760	541
Total other income	-	-	760	541

4.2 Significant expenses transactions for the years ended 31 December with related parties were as follows:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Cost of goods sold - purchase of goods and services				
Subsidiaries	-	-	110,680	353,490
Total cost of goods sold	-	-	110,680	353,490
Cost of services				
Subsidiaries	-	-	4,088	-
Total cost of services	-	-	4,088	-



	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Cost of construction services				
Subsidiaries	-	-	-	3,880
Total cost of construction services	<u>-</u>	<u>-</u>	<u>-</u>	<u>3,880</u>
Administrative expenses and others				
Training expense				
Subsidiaries	-	-	234	327
Other administrative expenses				
Subsidiaries	-	-	356	1
Joint ventures	190	-	190	-
Total administrative expenses and others	<u>190</u>	<u>-</u>	<u>780</u>	<u>328</u>
Finance costs				
Interest expense on loan				
Subsidiaries	-	-	5,526	2,588
Interest expense – lease liabilities				
Other related parties	536	915	417	722
Total finance costs	<u>536</u>	<u>915</u>	<u>5,943</u>	<u>3,310</u>
Purchase of investment property				
Associate	-	55,788	-	-
Purchase of assets				
Subsidiaries	-	-	50	-
Other related parties	4	21	-	21
Sale of assets				
Subsidiaries	-	-	1,450	37
Joint ventures	537	-	-	-
Purchase of right-of-use assets				
Other related parties	-	10,058	-	5,612
Key management personnel				
Key management personnel compensation				
Short-term employee benefit	221,769	189,740	144,844	142,744
Post-employment benefits	5,398	3,234	3,783	2,891
Total	<u>227,167</u>	<u>192,974</u>	<u>148,627</u>	<u>145,635</u>

4.3 Balances as at 31 December with related parties were as follows:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Trade accounts receivable				
Subsidiaries	-	-	14,617	94,394
Associate	1,083	1,586	-	-
Joint ventures	16,824	197	-	-
Other related parties	-	6	-	-
	<u>17,907</u>	<u>1,789</u>	<u>14,617</u>	<u>94,394</u>
Less allowance for expected credit loss	-	-	-	-
Total	<u>17,907</u>	<u>1,789</u>	<u>14,617</u>	<u>94,394</u>
Other receivables				
Subsidiaries	-	-	11,789	7,297
Joint venture	1,484	513	1,014	513
Total	<u>1,484</u>	<u>513</u>	<u>12,803</u>	<u>7,810</u>
Loans to				
Subsidiaries				
- Current portion of loans to	-	-	990,198	725,826
- Non - current portion of loans to	-	-	258,525	296,125
Other non-current financial assets				
Associate	<u>106,764</u>	<u>106,764</u>	<u>106,764</u>	<u>106,764</u>
Trade accounts payable				
Subsidiaries	-	-	7,891	64,043
Advance received				
Joint venture	<u>5,850</u>	-	-	-
Other current payables				
Subsidiaries	-	-	11,509	4,027
Joint venture	-	3,126	18	-
Total	<u>-</u>	<u>3,126</u>	<u>11,527</u>	<u>4,027</u>
Payable for purchases of assets				
Subsidiaries	-	-	54	-
Lease liabilities				
Other related parties	<u>11,291</u>	<u>22,618</u>	<u>8,254</u>	<u>16,221</u>
Loans from				
Subsidiaries	-	-	1,266,700	95,000

**Significant agreements with related parties**

As at 31 December 2022, the Group had agreements with related parties as follows:

Land building and properties lease/sublease agreements

The Company has land lease agreement for power plants construction with a subsidiary for the period of 26 years expiring in September 2039. The subsidiary has committed to pay rental fee as stipulated in the agreement.

The Company and certain subsidiaries have land lease, sublease of land, building and properties with certain related parties. The agreements are for period of 2-3 years and shall be renewable. The Company and subsidiaries have committed to pay rental fee as stipulated in the agreements.

The Company and certain subsidiaries have lease/sublease of land, building, property and rooftop space with its subsidiaries in the Group. The agreements are for period of 2 to 26 years and shall be renewable. The Company and subsidiaries have committed to pay rental fee as stipulated in the agreements.

Operation and maintenance agreements

The Company and a subsidiary had several operation and maintenance agreements with subsidiaries, associate and joint ventures whereby the service fees are stipulated in the agreements. These agreements expire in December 2023 to October 2043.

Service agreements

Joint ventures and subsidiaries had several service agreements with the company whereby the agreements is for a period of 5 years and shall be renewable. The service fees are stipulated in the agreements.

Construction service agreements

The certain subsidiaries had several construction service agreements with its subsidiaries in the Group. The subsidiaries have committed to pay services fee as stipulated in the agreements.

Asset management service agreements

Two subsidiaries in Japan have asset management service agreements with a subsidiary in Japan. These agreements have a period of 20 years commencing from commercial operation date. The agreements expire during April 2038 to December 2041. The services fees are stipulated in the agreements.

Security

At 31 December 2022, the Company has pledged promissory notes of loan to related party with a book value of Baht 287.33 million as collateral to secure long-term loan received from a commercial bank.

Land purchase agreement

A subsidiary of the Group has acquired land from an associate in the amount of Baht 55.79 million according to land purchase agreement. At the present, the said subsidiary has no aim to use such land in the future. Therefore, they classified this land to investment property. As at 31 December 2022, the fair value of this land is Baht 78.79 million which was determined by an independent professional valuers based on the open market values for an existing use basis. The fair value of investment property has been categorised as a Level 3.

**Valuation
technique**
Market approach

**Significant
Unobservable inputs**
The adjusted quoted price and the actual selling price of comparable investment properties

**Inter-relationship between
key unobservable inputs
and fair value measurement**
The estimated fair value increase (decrease) if land price were higher (lower).

5 Cash and cash equivalents

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Cash on hand	1,005	935	150	200
Cash at banks-current accounts	529,345	538,990	8,239	12,319
Cash at banks-savings accounts	1,088,141	1,070,294	163,097	333,952
Highly liquid short-term investments	450,000	-	450,000	-
Cheques on hand	130,661	118,707	369	13,535
Total	2,199,152	1,728,926	621,855	360,006

6 Trade and other current receivables

		Consolidated financial statements		Separate financial statements	
	Note	2022	2021	2022	2021
		<i>(in thousand Baht)</i>			
Trade accounts receivable					
Related parties	4	17,907	1,789	14,617	94,394
Other parties		753,966	1,237,790	42,794	72,215
Less allowance for expected credit loss		(678)	(2,556)	(678)	(1,056)
Net		771,195	1,237,023	56,733	165,553
Other current receivables					
Related parties	4	1,484	513	12,803	7,810
Other parties		53,608	72,270	100	5,338
Retention receivables		117,338	155,705	-	6,659
		172,430	228,488	12,903	19,807
Total		943,625	1,465,511	69,636	185,360

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
At 1 January	2,556	8,154	1,056	6,654
Addition	-	129	-	129
Reversal	(378)	(5,193)	(378)	(5,193)
Write-off	(1,500)	(534)	-	(534)
At 31 December	678	2,556	678	1,056

Allowance for expected credit loss



	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Within credit terms	709,555	1,182,993	26,383	98,824
Overdue:				
Less than 3 months	29,940	31,745	2,777	44,426
3 - 6 months	26,845	20,431	25,767	20,227
6 - 12 months	3,380	666	-	580
Over 12 months	2,153	3,744	2,484	2,552
	771,873	1,239,579	57,411	166,609
Less allowance for expected credit loss	(678)	(2,556)	(678)	(1,056)
Net	771,195	1,237,023	56,733	165,553

The normal credit term granted by the Group ranges from 30 days to 120 days.

7 Lease receivables

	Consolidated financial statements			
	Within 1 year	After 1 year but within 5 years	After 5 years	Total
	(in thousand Baht)			
31 December 2022				
Lease receivables	343,393	1,157,499	2,535,569	4,036,461
Less unearned interest income	(213,352)	(782,163)	(852,413)	(1,847,928)
Total	130,041	375,336	1,683,156	2,188,533
Less allowance for expected credit loss	-	-	-	-
Net	130,041	375,336	1,683,156	2,188,533
31 December 2021				
Lease receivables	239,127	976,419	2,299,816	3,515,362
Less unearned interest income	(145,659)	(731,443)	(859,736)	(1,736,838)
Total	93,468	244,976	1,440,080	1,778,524
Less allowance for expected credit loss	-	-	-	-
Net	93,468	244,976	1,440,080	1,778,524

8 Unbilled revenue

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Cost and attributable profit	3,713,737	4,165,069	-	62,231
Progress billings and others	(2,570,081)	(3,068,592)	-	(62,231)
Net	1,143,656	1,096,477	-	-

9 Inventories

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Finished goods	630,335	555,492	241,055	367,906
Work in progress	25,184	903	-	-
Raw materials	203,474	188,569	-	-
Factory supplies	7,672	1,749	-	-
Construction in progress	100,523	103,541	-	-
Goods in transit	63,970	5,774	1,516	3,933
Total	1,031,158	856,028	242,571	371,839
Less allowance for declining in value of inventories	(46,979)	(47,116)	(21,249)	(21,249)
Net	984,179	808,912	221,322	350,590

Inventories recognised in
'cost of sales of goods':

- Cost	1,440,499	1,174,854	626,675	1,361,734
- Write-down to net realisable value	190	516	-	-
- Reversal of write-down	(327)	(390)	-	-
Net	1,440,362	1,174,980	626,675	1,361,734

10 Investments in associates and joint ventures

	Consolidated financial statements		Separate financial statements	
Note	2022	2021	2022	2021
	(in thousand Baht)			
At 1 January	1,832,685	1,565,745	1,123,773	1,123,773
Share of net profit of associates and joint ventures	510,643	217,837	-	-
Acquisition of joint venture	-	250,000	-	-
Increase in share capital	a 66,250	500	50,000	-
Classified from investment in subsidiaries	b 3,741,254	-	1,117,000	-
Dividend income	(604,142)	(216,774)	-	-
Exchange differences on translating financial statements	(4,983)	15,377	-	-
At 31 December	5,541,707	1,832,685	2,290,773	1,123,773

a. Establishment of joint ventures

JGS Synergy Power Company Limited

During the year ended 31 December 2022, the Company established JGS Synergy Power Company Limited to invest in selling of electrical equipment, solar rooftop and to develop distribution channel for hemp products. The Company has 50% interest in such company which is a joint venture. The Company paid for shares subscription totalling of Baht 50 million.

***Pun New Energy Co., Ltd.***

During the year ended 31 December 2022, Future Energy Corporation Co., Ltd., the Company's subsidiary, established Pun New Energy Co., Ltd. in order to invest in solar rooftop power plant. The subsidiary has 50% interest in such company which is a indirect joint venture of the Group. The Company paid for shares subscription totalling of Baht 15 million.

Increase in share capital of joint venture***Origin Gunkul Energy Co., Ltd.***

During the year ended 31 December 2022, Future Energy Corporation Co., Ltd., the Company's indirect subsidiary, was paid for additional share capital in joint ventures amounting to Baht 1.25 million.

b. Change in ownership interest in subsidiaries to joint ventures

On 11 July 2022, the Board of Directors has passed a resolution to approve Gulf Gunkul Corporation Company Limited (formerly known as Gunkul Grand Asset Co., Ltd.) which is the Group's subsidiary and held 100% shareholdings in Wind Energy Development Company Limited, Greenovation Power Company Limited and Korat Wind Energy Company Limited (called as "Wind Energy Group"), to offer and issue ordinary shares of 11.17 million shares at par value of Baht 100 per share which is the portion of 50% of total registered capital of the said subsidiary to Gulf Renewable Energy Company Limited, which is a subsidiary of Gulf Energy Development Public Company Limited to increase the Group's liquidity and to expand investments in renewable energy business in the future.

As at 27 July 2022, Gulf Renewable Energy Company Limited has fully paid for share subscription amounting to Baht 5,000 million. After share increase completed, the Group's interest in Gulf Gunkul Corporation Company Limited has decreased from 100% to 50%. Therefore, Gulf Gunkul Corporation Company Limited has become joint venture of the Group since the date of share increase completed. The Company classified investment in Gulf Gunkul Corporation Company Limited at cost method in the amount of Baht 1,117 million to joint venture of the Company.

Moreover, the Group derecognised assets, liabilities and goodwill of such subsidiaries from the consolidated statements in full and measured initial investment in joint venture at fair value of 50% interest in Gulf Gunkul Corporation Company Limited. The Group recognised gain on change in ownership interest in subsidiaries to joint ventures amounting to Baht 1,330.72 million in the consolidated statements of comprehensive income for the year ended 2022.



	Type of business	Consolidated financial statements						Separate financial statements				Dividend income	
		Ownership interest		Equity		Cost		Impairment		At cost - net		for the year	
		2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
		(%)		(in thousand Baht)									
<i>Associate</i>													
G-Power Source Co., Ltd.	Generating and selling electricity	40.00	40.00	375,424	374,014	397,595	397,595	-	-	397,595	397,595	53,568	71,350
				<u>375,424</u>	<u>374,014</u>	<u>397,595</u>	<u>397,595</u>	<u>-</u>	<u>-</u>	<u>397,595</u>	<u>397,595</u>	<u>53,568</u>	<u>71,350</u>
<i>Direct joint ventures</i>													
Gunkul Chubu Powergen Co., Ltd.	Generating and selling electricity	51.00	51.00	1,006,023	993,909	505,920	505,920	-	-	505,920	505,920	138,065	143,934
WHA Gunkul Green Solar Roof 1 Co., Ltd.	Generating and selling electricity	25.01	25.01	2,068	2,254	2,876	2,876	-	-	2,876	2,876	-	201
WHA Gunkul Green Solar Roof 3 Co., Ltd.	Generating and selling electricity	25.01	25.01	2,827	3,046	3,626	3,626	-	-	3,626	3,626	-	417
WHA Gunkul Green Solar Roof 6 Co., Ltd.	Generating and selling electricity	25.01	25.01	2,828	3,054	3,626	3,626	-	-	3,626	3,626	-	472
WHA Gunkul Green Solar Roof 17 Co., Ltd.	Generating and selling electricity	25.01	25.01	2,540	2,277	4,002	4,002	-	-	4,002	4,002	-	400
Kenyir Gunkul Solar Sdn Bhd.	Generating and selling electricity	70.00	70.00	185,985	205,835	206,128	206,128	-	-	206,128	206,128	-	-
JGS Synergy Power Co., Ltd	Generating and selling electricity	50.00	-	48,839	-	50,000	-	-	-	50,000	-	-	-
Gulf Gunkul Corporation Co., Ltd	Investment in other companies	50.00	-	3,670,802	-	1,117,000	-	-	-	1,117,000	-	412,508	-
				<u>4,921,912</u>	<u>1,210,375</u>	<u>1,893,178</u>	<u>726,178</u>	<u>-</u>	<u>-</u>	<u>1,893,178</u>	<u>726,178</u>	<u>550,573</u>	<u>145,424</u>



	Type of business	Ownership interest		Consolidated financial statements		Cost		Separate financial statements				Dividend income for the year	
				Equity				Impairment		At cost - net			
		2022	2021	2022	2021	2022	2021	2022	2021	2022	2021		
		(%)		(in thousand Baht)									
		<i>Indirect joint ventures</i>											
Joint venture SPI & GPD	Provide cleaning services and goods shipping	50.00	50.00	545	565	-	-	-	-	-	-	-	-
THCG Group Co., Ltd.	Production and selling products that derived from hemp and cannabis	50.00	50.00	227,134	247,299	-	-	-	-	-	-	-	-
Origin Gunkul Energy Co., Ltd.	Generating and selling electricity	50.00	50.00	1,806	432	-	-	-	-	-	-	-	-
Pun New Energy Co., Ltd	Generating and selling electricity	50.00	-	14,886	-	-	-	-	-	-	-	-	-
				<u>244,371</u>	<u>248,296</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total				<u>5,541,707</u>	<u>1,832,685</u>	<u>2,290,773</u>	<u>1,123,773</u>	<u>-</u>	<u>-</u>	<u>2,290,773</u>	<u>1,123,773</u>	<u>604,141</u>	<u>216,774</u>

All associate and joint ventures were incorporated in Thailand, except Kenyir Gunkul Solar Sdn Bhd. which was incorporated and operated in Malaysia. None of the Group's associate and joint ventures are publicly listed and consequently do not have published price quotations.

**Material associates and joint ventures**

The following table summarises the financial information of the associates and joint ventures as included in their own financial statements, adjusted for fair value adjustments at acquisition and differences in accounting policies. The table also reconciles the summarised financial information to the carrying amount of the Group's interest in these companies.

	Associate		Joint venture		Joint venture
	G-Power Source Co., Ltd.		Gunkul Chubu Powergen Co., Ltd.		Gulf Gunkul Corporation Co., Ltd
	2022	2021	2022	2021	For the period from 27 July 2022 to 31 December 2022
			<i>(in thousand Baht)</i>		
Revenue	308,390	526,067	503,446	535,791	1,142,307
Profit for the year / period	202,410	362,168	302,592	332,329	710,211
Less impairment losses	(74,354)	(282,690)	-	(51,081)	-
Net profit (loss)	128,056	79,478	302,592	281,248	710,211
Other comprehensive income (expense)	-	-	-	38	-
Total comprehensive income (expense) (100%)	128,056	79,478	302,592	281,286	710,211
Total comprehensive income (expense) of the Group's interest (40%, 51% and 50% hold)	51,222	31,791	154,322	143,456	355,106
Elimination of unrealised profit on sales of assets	8,140	8,140	7,251	7,251	-
Power purchase agreement and others	(4,384)	(4,384)	(11,394)	(11,394)	(13,050)
Group's share of total comprehensive income (expense)	54,978	35,547	150,179	139,313	342,056
	Associate		Joint venture		Joint venture
	G-Power Source Co., Ltd.		Gunkul Chubu Powergen Co., Ltd.		Gulf Gunkul Corporation Co., Ltd
	2022	2021	2022	2021	2022
			<i>(in thousand Baht)</i>		
Current assets	175,966	195,226	172,603	209,949	1,775,471
Non-current assets	1,281,812	1,389,773	1,711,833	1,817,950	11,380,514
Current liabilities	(362,427)	(460,234)	(28,834)	(195,788)	(1,498,491)
Non-current liabilities	(19,474)	(43,023)	(2,149)	(10,533)	(5,339,357)
Net assets (100%)	1,075,877	1,081,742	1,853,453	1,821,578	6,318,137
Group's share of net assets (40%, 51% and 50% hold)	430,351	432,697	945,261	929,005	3,159,069
Elimination of unrealised profit on sales of assets	(118,068)	(126,208)	(113,270)	(120,521)	-
Power purchase agreement	63,141	67,525	174,032	185,425	511,733
Carrying amount of interest in associate and joint venture	375,424	374,014	1,006,023	993,909	3,670,802

	Joint ventures	
	Gunkul Chubu Powergen Co., Ltd.	Gulf Gunkul Corporation Co., Ltd.
	2022	2021
	<i>(in thousand Baht)</i>	

Remark:

a. Includes:

- depreciation and amortisation	106,131	110,288	514,026
- interest expense	4,124	13,589	267,068
- income tax expense	31,787	17,494	693

b. Includes cash and cash equivalents

	68,635	10	3,342
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c. Short-term deposits from financial institution pledged as collateral

	-	111,026	1,204,932
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d. Includes current financial liabilities (excluding trade, other payables and provisions)

	-	172,429	1,129,368
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e. Includes non-current financial liabilities

(excluding trade, other payables and provisions)	-	8,399	5,133,909
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Gulf Gunkul Corporation Co., Ltd.

On 12 February 2023, Wind Energy Development Company Limited, a subsidiary of Gulf Gunkul Corporation Co., Ltd., was judged by Nakhon Ratchasima Administrative Court to revoke the land title deeds of 32 plots which are a part of wind power project, and the said company is in the process of exercise the right to appeal the verdict of Administrative Court. However, this legal case has not finalised yet, Wind Energy Development Company Limited remains operate its electricity generating business as usual.

Impairment assessment for power plants

During 2022, the managements of the associate and joint venture found a decline in budgeted net cashflow from revenues due to the subsidy income (Adder) will be soon expired. The managements of the associate and joint venture has calculated the recoverable amount using the value in use method. The value in use method is calculated by determining discounted future cashflows. The key assumptions used to determine value in use included electricity price, operating expenditures over the remining economic useful life of the assets and discount rate referred to weighted average cost to capital (WACC) at 7% - 7.16% (2021: at 6.28% - 6.30%). As a results, the value in use of assets was lower than the carrying amounts. The Group recognised an impairment loss from the associate in the proportion of the Group's interest amounting to Baht 29.74 million, and recorded in share of profit of associates and joint ventures accounted for using equity method account in the consolidated statement of comprehensive income for the year 2022 (2021: Associate of Baht 113.08 million and joint ventures of Baht 26.05 million).

*Immaterial joint ventures*

The following is summarised financial information for the Group's interest in immaterial joint ventures based on the amounts reported in the Group's consolidated financial statements:

	Immaterial joint ventures	
	2022	2021
	<i>(in thousand Baht)</i>	
Carrying amount of interests in immaterial joint ventures	489,458	464,762
Group's share of:		
- Profit (loss) from continuing operations	(36,571)	29,815
- Other comprehensive income (expense)	-	-
- Total comprehensive income (expense)	<u>(36,571)</u>	<u>29,815</u>

11 Investments in subsidiaries

	Separate financial statements	
	2022	2021
	<i>(in thousand Baht)</i>	
At 1 January	15,567,926	15,712,438
Increase in share capital of subsidiaries	c 3,015,323	765,789
Acquisition of non-controlling interests	d 120,000	-
Sale of investments in subsidiaries	e (5,681,400)	-
Classified to investment in joint ventures	10(b) (1,117,000)	-
Decrease in share capital	f (22,177)	(896,788)
Impairment loss	(9,729)	(13,513)
At 31 December	<u>11,872,943</u>	<u>15,567,926</u>

c. Increase in share capital of subsidiaries

<i>For the year ended 31 December</i>	2022	2021
	<i>(in thousand Baht)</i>	
Subsidiaries		
Gunkul Infinite Group Co., Ltd.	-	23,805
Joint venture GKE & FEC	-	2,100
Solar Energy Society Co., Ltd.	15,000	366,536
G.K. Real Estate (2564) Co., Ltd.	-	57,599
K.N.P Supply Co., Ltd.	149,700	20,250
Gunkul Power Development Co., Ltd.	50,000	-
G.K. Hemp Group Co., Ltd.	280,000	270,000
Gunkul Wind Power 1 Co., Ltd.	3,750	1,250
Gunkul Wind Power 2 Co., Ltd.	3,750	1,250
Gunkul Wind Power 3 Co., Ltd.	-	1,250
Gunkul Wind Power 4 Co., Ltd.	3,750	1,250
Gunkul Wind Power 5 Co., Ltd.	-	2,000
Gunkul Wind Power 6 Co., Ltd.	3,000	3,000
Gunkul Wind Power 7 Co., Ltd.	3,000	3,000
Gunkul Wind Power 8 Co., Ltd.	3,749	1,250
Gunkul Wind Power 9 Co., Ltd.	3,749	1,250
G.A.P Supply Co., Ltd.	3,249	-
Gunkul Solar Powergen Co., Ltd.	225,543	-
Gunkul One Energy 2 Co., Ltd.	143,115	-

For the year ended 31 December

	2022	2021
	<i>(in thousand Baht)</i>	
Gunkul One Energy 5 Co., Ltd.	43,300	-
Gunkul One Energy 9 Co., Ltd.	230,418	-
Gunkul One Energy 11 Co., Ltd.	110,250	-
Gunkul Wind Development 1 Co., Ltd.	158,250	-
Gunkul Wind Development 3 Co., Ltd.	158,250	-
Gunkul Wind Development 6 Co., Ltd.	158,250	-
Gunkul Wind Development 8 Co., Ltd.	158,250	-
Gulf Gunkul Corporation Co., Ltd.		
<i>(Gunkul Grand Asset Co., Ltd.)</i>	1,107,000	9,999
Total	<u>3,015,323</u>	<u>765,789</u>

*Establishment of subsidiaries**G Wind Power Holding 3 Co., Ltd. and G Wind Power Holding 5 Co., Ltd.*

During the year ended 31 December 2022, the Company established G Wind Power Holding 3 Co., Ltd. and G Wind Power Holding 5 Co., Ltd. and held 100% shareholding in such subsidiaries. The Company has transferred its share held in Gunkul Wind Power 3 Co., Ltd. and Gunkul Wind Power 5 Co., Ltd., the Company subsidiaries, in the amount of Baht 1.25 million and Baht 2 million to G Wind Power Holding 3 Co., Ltd. and G Wind Power Holding 5 Co., Ltd., respectively. Therefore, Gunkul Wind Power 3 Co., Ltd. and Gunkul Wind Power 5 Co., Ltd. were changed from direct subsidiary to indirect subsidiary of the Company.

G.A.P Supply Co., Ltd.

On 28 June 2022, the Company established G.A.P Supply Co., Ltd. in order to selling of equipments for electrical systems with registered capital of Bath 10 million and held 100% shareholding in such subsidiary. The Company paid for the share capital amounting to Bath 3.25 million.

Gunkul Solar Powergen Co., Ltd.

On 17 August 2022, the Company established Gunkul Solar Powergen Co., Ltd. in order to generating and selling electricity with registered capital of Bath 899.18 million and held 100% shareholding in such subsidiary. The Company paid for the share capital amounting to Bath 225.54 million.

Gunkul One Energy 2 Co., Ltd.

On 27 September 2022, the Company established Gunkul One Energy 2 Co., Ltd. in order to generating and selling electricity with registered capital of Bath 569.46 million and held 100% shareholding in such subsidiary. The Company paid for the share capital amounting to Bath 143.12 million.

Gunkul One Energy 5 Co., Ltd.

On 27 September 2022, the Company established Gunkul One Energy 5 Co., Ltd. in order to generating and selling electricity with registered capital of Bath 95 million and held 100% shareholding in such subsidiary. The Company paid for the share capital amounting to Bath 43.30 million.

Gunkul One Energy 9 Co., Ltd.

On 27 September 2022, the Company established Gunkul One Energy 9 Co., Ltd. in order to generating and selling electricity with registered capital of Bath 918.68 million and held 100% shareholding in such subsidiary. The Company paid for the share capital amounting to Bath 230.42 million.

***Gunkul One Energy 11 Co., Ltd.***

On 27 September 2022, the Company established Gunkul One Energy 11 Co., Ltd. in order to generating and selling electricity with registered capital of Baht 438 million and held 100% shareholding in such subsidiary. The Company paid for the share capital amounting to Baht 110.25 million.

Gunkul Wind Development 1 Co., Ltd.

On 27 September 2022, the Company established Gunkul Wind Development 1 Co., Ltd. in order to generating and selling electricity with registered capital of Baht 630 million and held 100% shareholding in such subsidiary. The Company paid for the share capital amounting to Baht 158.25 million.

Gunkul Wind Development 3 Co., Ltd.

On 27 September 2022, the Company established Gunkul Wind Development 3 Co., Ltd. in order to generating and selling electricity with registered capital of Baht 630 million and held 100% shareholding in such subsidiary. The Company paid for the share capital amounting to Baht 158.25 million.

Gunkul Wind Development 6 Co., Ltd.

On 27 September 2022, the Company established Gunkul Wind Development 6 Co., Ltd. in order to generating and selling electricity with registered capital of Baht 630 million and held 100% shareholding in such subsidiary. The Company paid for the share capital amounting to Baht 158.25 million.

Gunkul Wind Development 8 Co., Ltd.

On 27 September 2022, the Company established Gunkul Wind Development 8 Co., Ltd. in order to generating and selling electricity with registered capital of Baht 630 million and held 100% shareholding in such subsidiary. The Company paid for the share capital amounting to Baht 158.25 million.

d. Acquisition of non-controlling interests***Gunkul Infinite Group Co., Ltd.***

At the Board of Directors Meeting of the Company held on 17 December 2021, the Board of Directors approved to purchase of additional ordinary shares in Gunkul Infinite Group Company Limited, the Group's subsidiary, in the number of 0.785 million shares which is the proportion of 25% of total paid-up share capital. Formerly, the Company has 74.99% interest in the said subsidiary, after share transfer was completed, the Company's interest will be 99.99%. Total purchase price is Baht 120 million in order to support and expand the rental business, sublease, asset management and electricity generation from renewable energy businesses. As at 31 December 2021, the Company paid for advance for shares subscription of Baht 60 million.

On 19 January 2022, the Company paid for the remaining share subscription of Baht 60 million. Total purchase price is Baht 120 million. The carrying amount Gunkul Infinite Group Company Limited's net assets in the Group's financial statements on the date of the acquisition was Baht 413.97 million. The Group recognised a decrease in non-controlling interests of Baht 103.58 million and recognised deficit from changes in ownership interest in subsidiary of Baht 16.42 million.

e. Sale of investments in subsidiaries

At the Board of Director's Meeting held on 10 June 2022, the Board approved the restructuring of the Group to support future investment by transfer all ordinary share of Wind Energy Development Company Limited, Greenovation Power Company Limited and Korat Wind Energy Company Limited (called as "Wind Energy Group"), the Company's direct subsidiaries, to Gulf Gunkul Corporation Company Limited (formerly known as Gunkul Grand Asset Co., Ltd.) which is the Company's subsidiary. Total investment at cost is Baht 5,681.4 million and the selling price is Baht 6,116.82 million, the restructuring was completed on 27 July 2022. The Company recognised gain on sale of investments in subsidiaries in the separate statements of comprehensive income for the year ended 31 December 2022 amounting to Baht 435.42 million.

f. Decrease in share capital of subsidiary***Joint Venture GKE & GPD Co., Ltd.***

During the year ended 31 December 2022, Joint Venture GKE & GPD Co.,Ltd., the Company subsidiary, has registered its dissolution and the liquidation process has been completed. The Company has 100% interest in such subsidiary with the total investment of Baht 10 million. The Company recognised impairment loss in profit or loss of Baht 0.08 million and received cash from dissolution of Baht 9.92 million.

GO Bioenergy Co., Ltd.

During the year ended 31 December 2022, GO Bioenergy Co., Ltd., the Company subsidiary, has completed its liquidation process. The Company has 74.9% interest in such subsidiary with the total investment of Baht 25.69 million. The Company has recognised impairment loss of Baht 13.5 million and received cash from capital reduction of Baht 12.16 million.



Separate financial statements												
	Type of business	Country of operation	Ownership interest		Cost		Impairment		At cost - net		Dividend income for the year	
			2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
			(%)		(in thousand Baht)							
Subsidiaries												
G.K. Power Product Co., Ltd.	Manufacturing and selling of equipments for electrical systems	Thailand	100.00	100.00	80,425	80,425	-	-	80,425	80,425	-	-
G.K. Assembly Co., Ltd.	Manufacturing and selling of equipments for electrical system	Thailand	100.00	100.00	163,188	163,188	-	-	163,188	163,188	-	-
K.N.P Supply Co.,Ltd.	Import-export and selling equipments for electrical systems	Thailand	100.00	100.00	173,857	24,158	-	-	173,857	24,158	-	-
Greenovation Power Co., Ltd.	Generating and selling electricity	Thailand	-	100.00	-	1,916,500	-	-	-	1,916,500	-	377,190
Wind Energy Development Co., Ltd.	Generating and selling electricity	Thailand	-	100.00	-	2,226,150	-	-	-	2,226,150	-	138,600
NK Power Sola Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	40,854	40,854	-	-	40,854	40,854	13,070	14,000
Gunkul Solar Roof 1 Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	21,000	21,000	-	-	21,000	21,000	-	-
Gunkul Training Center Co., Ltd.	Provide training services	Thailand	100.00	100.00	1,000	1,000	-	-	1,000	1,000	-	1,200
Solar Energy Society Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	750,000	735,000	-	-	750,000	735,000	-	-
Bright Green Power Co., Ltd.	Investing in companies	Thailand	100.00	100.00	1,306,410	1,306,410	-	-	1,306,410	1,306,410	-	-
Gunkul Power Development Co., Ltd.	Construction	Thailand	100.00	100.00	350,000	300,000	-	-	350,000	300,000	79,975	-
Gunkul Solar Community Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	20,000	20,000	-	-	20,000	20,000	19,000	-
Siam Gunkul Solar Energy Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	40,899	40,899	-	-	40,899	40,899	3,010	3,354
Korat Wind Energy Co., Ltd.	Generating and selling electricity	Thailand	-	100.00	-	1,538,750	-	-	-	1,538,750	-	466,933
Gunkul Utility and Energy Co. Ltd	Manufacturing and selling of energy - saving products	Thailand	100.00	100.00	40,600	40,600	-	-	40,600	40,600	-	-
GO Bioenergy Co., Ltd.	Investing in companies	Thailand	-	74.90	-	25,690	-	(13,513)	-	12,177	-	-
Infinite Alternative Energy Co., Ltd.	Investing in companies	Thailand	100.00	100.00	1,868,576	1,868,576	-	-	1,868,576	1,868,576	295,440	355,028
Eco Thaienergy Co., Ltd.	Generating and selling electricity	Thailand	51.00	51.00	42,015	42,015	-	-	42,015	42,015	5,263	4,202



Separate financial statements												
	Type of business	Country of operation	Ownership interest		Cost		Impairment		At cost - net		Dividend income for the year	
			2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
			(%)						(in thousand Baht)			
Gunkul Infinite Group Co., Ltd.	Generating and selling electricity	Thailand	100.00	75.00	355,500	235,500	-	-	355,500	235,500	94,357	-
Gunkul International (Mauritius)	Investing in companies	Mauritius	100.00	100.00	3,843,657	3,843,657	-	-	3,843,657	3,843,657	186,978	1,068,510
Gunkul Solar Power Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	179,250	179,250	-	-	179,250	179,250	-	-
BMP Solar Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	216,938	216,938	-	-	216,938	216,938	19,498	21,798
G.K. Hemp Group Co., Ltd.	Investing in companies	Thailand	100.00	100.00	550,000	270,000	-	-	550,000	270,000	-	-
G.K. Real Estate (2564) Co., Ltd.	Investing in real estate	Thailand	100.00	100.00	57,600	57,600	-	-	57,600	57,600	-	-
Gunkul Wind Power 1 Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	5,000	1,250	-	-	5,000	1,250	-	-
Gunkul Wind Power 2 Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	5,000	1,250	-	-	5,000	1,250	-	-
Gunkul Wind Power 3 Co., Ltd.	Generating and selling electricity	Thailand	-	100.00	-	1,250	-	-	-	1,250	-	-
Gunkul Wind Power 4 Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	5,000	1,250	-	-	5,000	1,250	-	-
Gunkul Wind Power 5 Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	-	1,999	-	-	-	1,999	-	-
Gunkul Wind Power 6 Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	5,999	2,999	-	-	5,999	2,999	-	-
Gunkul Wind Power 7 Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	5,999	2,999	-	-	5,999	2,999	-	-
Gunkul Wind Power 8 Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	4,999	1,250	-	-	4,999	1,250	-	-
Gunkul Wind Power 9 Co., Ltd.	Generating and selling electricity	Thailand	100.00	100.00	4,999	1,250	-	-	4,999	1,250	-	-
G Wind Power Holding 3 Co., Ltd	Investment in other company	Thailand	100.00	-	1,250	-	-	-	1,250	-	-	-
G Wind Power Holding 5 Co., Ltd	Investment in other company	Thailand	100.00	-	1,999	-	-	-	1,999	-	-	-
Gunkul Grand Asset Co., Ltd.	Construction	Thailand	-	100.00	-	10,000	-	-	-	10,000	-	-
Joint venture GKE & GPD Company Limited	Construction	Thailand	-	50.00	-	10,000	(9,729)	-	-	10,000	-	-
Joint venture GKE & FEC	Construction	Thailand	60.00	60.00	17,700	17,700	-	-	7,971	17,700	-	-
GAP Supply Co., Ltd.	Import and export equipments for electrical systems	Thailand	100.00	-	3,250	-	-	-	3,250	-	-	-
Gunkul Solar Powergen Co., Ltd.	Generating and selling electricity	Thailand	100.00	-	225,543	-	-	-	225,543	-	-	-
Gunkul Wind Development 1 Co., Ltd.	Generating and selling electricity	Thailand	100.00	-	158,250	-	-	-	158,250	-	-	-



Separate financial statements												
	Type of business	Country of operation	Ownership interest		Cost		Impairment		At cost - net		Dividend income for the year	
			2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
			(%)		(in thousand Baht)							
Gunkul Wind Development 3 Co., Ltd.	Generating and selling electricity	Thailand	100.00	-	158,250	-	-	-	158,250	-	-	-
Gunkul Wind Development 6 Co., Ltd.	Generating and selling electricity	Thailand	100.00	-	158,250	-	-	-	158,250	-	-	-
Gunkul Wind Development 8 Co., Ltd.	Generating and selling electricity	Thailand	100.00	-	158,250	-	-	-	158,250	-	-	-
Gunkul One Energy 2 Co., Ltd.	Generating and selling electricity	Thailand	100.00	-	143,115	-	-	-	143,115	-	-	-
Gunkul One Energy 5 Co., Ltd.	Generating and selling electricity	Thailand	100.00	-	43,300	-	-	-	43,300	-	-	-
Gunkul One Energy 9 Co., Ltd.	Generating and selling electricity	Thailand	100.00	-	230,418	-	-	-	230,418	-	-	-
Gunkul One Energy 11 Co., Ltd.	Generating and selling electricity	Thailand	100.00	-	110,250	-	-	-	110,250	-	-	-
Gunkul Engineering (Myanmar) Company Limited	Import and selling equipments for electrical systems	Myanmar	100.00	100.00	1,588	1,588	-	-	1,588	1,588	-	-
Doan Son Thuy Investment Joint Stock Company	Generating and selling electricity	Vietnam	100.00	100.00	332,494	332,494	-	-	332,494	332,494	53,138	-
Total					11,882,672	15,581,439	(9,729)	(13,513)	11,872,943	15,567,926	769,729	2,450,815

None of the Company's subsidiaries are publicly listed and consequently do not have published price quotations.

12 Property, plant and equipment

Consolidated financial statements

	Land	Building, building improvement and utility system	Machinery and equipment	Furniture, fixtures and office equipment <i>(in thousand Baht)</i>	Vehicles	Assets under construction	Total
Cost							
At 1 January 2021	1,764,013	1,877,140	26,227,954	100,489	88,610	652,121	30,710,327
Additions	-	355,769	29,163	6,180	-	904,186	1,295,298
Transfers	-	4,968	448,980	-	-	(453,948)	-
Transfers from right-of-use assets	-	-	-	-	12,635	-	12,635
Disposals	-	(351,473)	(471,193)	(14,064)	(116)	(5,133)	(841,979)
Effect of movements in exchange rates	(98)	104,314	407,402	44	-	-	511,662
At 31 December 2021 and 1 January 2022	1,763,915	1,990,718	26,642,306	92,649	101,129	1,097,226	31,687,943
Additions	39,090	227,372	165,357	22,840	2,650	374,379	831,688
Transfers	19,475	59,843	484,000	-	-	(563,318)	-
Transfers from right-of-use assets	-	-	-	-	4,897	-	4,897
Disposals	-	(29,187)	(458,843)	(9,362)	(3,391)	(12,475)	(513,258)
Change in ownership interest in subsidiaries to joint ventures <i>(Note 10)</i>	(644,722)	(256,160)	(11,709,390)	(1,220)	(5,916)	-	(12,617,408)
Effect of movements in exchange rates	(71,340)	(1,797)	(629,833)	(303)	-	(165)	(703,438)
At 31 December 2022	1,106,418	1,990,789	14,493,597	104,604	99,369	895,647	18,690,424



Consolidated financial statements

	Land	Building, building improvement and utility system	Machinery and equipment	Furniture, fixtures and office equipment (in thousand Baht)	Vehicles	Assets under construction	Total
Accumulated depreciation and impairment losses							
At 1 January 2021	-	(255,731)	(3,411,710)	(73,540)	(54,609)	(322)	(3,795,912)
Depreciation charge for the year	-	(81,509)	(1,225,665)	(10,265)	(4,731)	-	(1,322,170)
Transfers from right-of-use assets	-	-	-	-	(10,321)	-	(10,321)
Disposals	-	263	9,532	13,641	115	-	23,551
Effect of movements in exchange rates	-	(8,145)	(39,306)	(11)	-	-	(47,462)
At 31 December 2021 and 1 January 2022	-	(345,122)	(4,667,149)	(70,175)	(69,546)	(322)	(5,152,314)
Depreciation charge for the year	(2,763)	(89,078)	(1,031,362)	(12,030)	(4,415)	-	(1,139,648)
Transfers from right-of-use assets	-	-	-	-	(2,777)	-	(2,777)
Disposals	-	55	9,061	6,815	2,741	-	18,672
Change in ownership interest in subsidiaries to joint ventures (Note 10)	-	47,313	2,157,251	984	3,895	-	2,209,443
Effect of movements in exchange rates	-	1,062	106,776	212	-	-	108,050
At 31 December 2022	(2,763)	(385,770)	(3,425,423)	(74,194)	(70,102)	(322)	(3,958,574)
Net book value							
At 31 December 2021	1,763,915	1,645,596	21,975,157	22,474	31,583	1,096,904	26,535,629
At 31 December 2022	1,103,655	1,605,019	11,068,174	30,410	29,267	895,325	14,731,850



Separate financial statements

	Building and building improvement	Machinery and equipment	Furniture, fixtures and office equipment (in thousand Baht)	Vehicles	Assets under construction	Total
Cost						
At 1 January 2021	32,608	19,081	61,055	56,677	2,778	172,199
Additions	472	91	2,532	-	332	3,427
Disposals	-	(116)	(8,407)	-	(3,110)	(11,633)
At 31 December 2021 and 1 January 2022	33,080	19,056	55,180	56,677	-	163,993
Additions	-	20	8,299	-	-	8,319
Transfers from right-of-use assets	-	-	-	3,579	-	3,579
Transfers	-	(55)	(5,593)	(1,689)	-	(7,337)
At 31 December 2022	33,080	19,021	57,886	58,567	-	168,554
Accumulated depreciation						
At 1 January 2021	(30,254)	(18,325)	(43,812)	(32,951)	-	(125,342)
Depreciation charge for the year	(490)	(264)	(7,023)	(3,286)	-	(11,063)
Disposals	-	116	8,401	-	-	8,517
At 31 December 2021 and 1 January 2022	(30,744)	(18,473)	(42,434)	(36,237)	-	(127,888)
Depreciation charge for the year	(564)	(268)	(7,531)	(3,156)	-	(11,519)
Transfers from right-of-use assets	-	-	-	(1,629)	-	(1,629)
Disposals	-	55	4,776	1,243	-	6,074
At 31 December 2022	(31,308)	(18,686)	(45,189)	(39,779)	-	(134,962)
Net book value						
At 31 December 2021	2,336	583	12,746	20,440	-	36,105
At 31 December 2022	1,772	335	12,697	18,788	-	33,592

Security

At 31 December 2022, the Group has pledged land, building and machinery with a net book value of Baht 11,099.24 million as collateral to secure long-term loans (See note 15) (2021: Baht 22,332.06 million).

13 Leases

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
Right-of-use assets At 31 December				
	(in thousand Baht)			
Land	320,191	457,150	-	-
Buildings	20,021	29,663	12,581	24,501
Warehouse	12,194	13,077	3,968	7,937
Rooftop for solar power plant	36,979	16,547	-	-
Vehicles	15,642	27,448	21,054	14,642
Total	405,027	543,885	37,603	47,080

In 2022, additions to the right-of-use assets of the Group and the Company were Baht 40.07 million and Baht 8.76 million, respectively (2021: Baht 12.61 million and Baht 8.98 million, respectively).

Extension options

The Group has extension options on property leases exercisable up to one year before the end of the contract period. The Group assesses at lease commencement date whether it is reasonably certain to exercise the extension options and will regularly reassess so.

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
For the year ended 31 December				
	(in thousand Baht)			
Amounts recognised in profit or loss				
Depreciation of right-of-use assets:				
- Land	45,535	23,410	-	-
- Buildings	16,755	13,909	11,921	11,261
- Warehouse	9,103	7,625	3,968	3,968
- Rooftop for solar power plant	906	906	-	-
- Vehicles	7,426	7,886	4,473	3,755
Interest on lease liabilities	19,930	22,037	911	1,390
Expenses relating to short-term leases and leases of low-value assets	2,740	5,193	1,324	1,944

In 2022, total cash outflow for leases of the Group and the Company were Baht 71.36 million and Baht 20.74 million respectively. (2021: Baht 74.74 million and Baht 17.21 million, respectively).



14 Intangible assets and goodwill

	Consolidated financial statements					
	Software licences	Right to use electrical transmission line	Right to power purchase agreement and right to operate (in thousand Baht)	Goodwill	Software under installation	Total
Cost						
At 1 January 2021	34,452	890,804	2,984,864	163,476	-	4,073,596
Additions	4,716	1,320	-	-	4,710	10,746
Disposals	-	(1,622)	-	-	-	(1,622)
Effect of movements in exchange rates	407	-	47,936	-	-	48,343
At 31 December 2021 and 1 January 2022	39,575	890,502	3,032,800	163,476	4,710	4,131,063
Additions	5,102	4,518	-	-	12,509	22,129
Decrease	-	-	(3,975)	-	-	(3,975)
Transfer	1,840	1,812	-	-	(3,652)	-
Disposals	(1,577)	(634)	-	-	-	(2,211)
Change in ownership interest in subsidiaries to joint ventures (Note 10)	(239)	(785,410)	(1,662,845)	(82,551)	(10,688)	(2,541,733)
Effect of movements in exchange rates	(2)	-	(42,298)	-	-	(42,300)
At 31 December 2022	44,699	110,788	1,323,682	80,925	2,879	1,562,973
Accumulated amortisation and impairment losses						
At 1 January 2021	(15,745)	(115,903)	(363,822)	-	-	(495,470)
Amortisation charge for the year	(5,995)	(35,647)	(128,722)	-	-	(170,364)
Effect of movements in exchange rates	(617)	-	(1,116)	-	-	(1,733)
At 31 December 2021 and 1 January 2022	(22,357)	(151,550)	(493,660)	-	-	(667,567)
Amortisation charge for the year	(6,185)	(22,270)	(93,966)	-	-	(122,421)
Disposal	1,230	-	-	-	-	1,230
Change in ownership interest in subsidiaries to joint ventures (Note 10)	193	146,915	323,896	-	-	471,004
Effect of movements in exchange rates	14	-	7,508	-	-	7,522
At 31 December 2022	(27,105)	(26,905)	(256,222)	-	-	(310,232)
Net book value						
At 31 December 2021	17,218	738,952	2,539,140	163,476	4,710	3,463,496
At 31 December 2022	17,594	83,883	1,067,460	80,925	2,879	1,252,741

Impairment testing for cash-generating units containing goodwill

The recoverable amounts of the power plant asset containing goodwill have been determined using the value in use models. The key assumptions used in the estimation of the recoverable amount included the discount rate was estimated based on 16 - 21 years government bond rate as a proxy for the risk free rate with debt leveraging of 60% - 70%. The cash flow projections were prepared using the external information, which included sales volumes, prices, operating costs, inflation rate and long-term growth rates for the period over the remaining of the power purchase agreements.

The key assumptions used in the estimation of the recoverable amount are set out below. The values assigned to the key assumptions represent management's assessment of future trends in the relevant industries and have been based on historical data from both external and internal sources.

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
			(%)	
Discount rate-Solar power stations	7.00 - 8.00	5.64 - 6.63	-	-
Discount rate-Wind Farm power stations	-	5.83 - 5.98	-	-

The discount rate was based on the rate of 16 - 21 years government bonds issued by the government in the relevant market and in the same currency as the cash flows, adjusted for a risk premium to reflect both the increased risk of investing in equities generally and the systematic risk of the specific CGU.

Revenue projection

Projections of all revenues for each power plant assets have been made as stated in the Power Purchase Agreements while applying the projections of revenue from external information for the post power purchase agreement periods. Assumptions included tariff from solar power plants and wind farms, inflation and other related factors.

The impairment test has been prepared by the management from information of the contracts entered with the counterparties while forecasting revenue and expenses from the external source and the possible together with systematic parameters and conservative approaches are used for its calculation and no impairment charges are required for goodwill.

Management believes that any reasonably possible change in the key assumptions such as discounted rates, adder and growth rate on which recoverable amount is based would not cause the carrying amount to exceed its recoverable amount.



	Separate financial statements		
	Software licences	Software in progress (in thousand Baht)	Total
Cost			
At 1 January 2021	13,500	-	13,500
Additions	4,352	1,841	6,193
At 31 December 2021 and 1 January 2022	17,852	1,841	19,693
Additions	2,460	-	2,460
Transfer	1,841	(1,841)	-
At 31 December 2022	22,153	-	22,153
Accumulated amortisation			
At 1 January 2021	(6,665)	-	(6,665)
Amortisation charge for the year	(3,211)	-	(3,211)
At 31 December 2021 and at 1 January 2022	(9,876)	-	(9,876)
Amortisation charge for the year	(2,920)	-	(2,920)
At 31 December 2022	(12,796)	-	(12,796)
Net book value			
At 31 December 2021	7,976	1,841	9,817
At 31 December 2022	9,357	-	9,357

15 Interest-bearing liabilities

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Current				
Short-term loans from financial institutions - unsecured	481,652	1,646,044	-	1,220,907
<i>Less</i> unamortised discount	-	(1,356)	-	(1,356)
	481,652	1,644,688	-	1,219,551
Current portion of long-term loans from financial institutions - secured	867,540	1,706,816	28,800	28,800
<i>Less</i> unamortised deferred financing fees	(7,797)	(34,920)	(274)	(297)
	859,743	1,671,896	28,526	28,503
Current portion of debentures - unsecured	907,100	2,800,000	907,100	2,800,000
<i>Less</i> unamortised deferred financing fees	(523)	(2,469)	(523)	(2,469)
	906,577	2,797,531	906,577	2,797,531
Current portion of lease liabilities	48,321	43,888	20,794	19,237
Total current interest-bearing liabilities	2,296,293	6,158,003	955,897	4,064,822

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Non-current				
Long-term loans from financial Institutions- secured	10,263,544	15,645,360	1,680,800	309,600
<i>Less</i> unamortised deferred financing fees	(69,533)	(157,556)	(1,321)	(1,592)
	10,194,011	15,487,804	1,679,479	308,008
Debentures - unsecured	2,241,600	3,148,700	2,241,600	3,148,700
<i>Less</i> unamortised deferred financing fees	(4,044)	(6,440)	(4,044)	(6,440)
	2,237,556	3,142,260	2,237,556	3,142,260
Lease liabilities	414,215	522,807	13,480	25,073
Total non-current interest-bearing liabilities	12,845,782	19,152,871	3,930,515	3,475,341
Total	15,142,075	25,310,874	4,886,412	7,540,163

Guarantee

As at 31 December 2022, The Company has pledged ordinary shares of certain subsidiaries, associate and joint ventures, together with land and buildings, machinery and equipment and deposits of the said subsidiaries, including the right of land sublease and building lease agreements, land lease agreements, Power Purchase Agreement and the right of power plant project agreement in Japan and Vietnam as collateral against the credit facilities those entities received from commercial banks in amount of Baht 19,946.28 million, U.S. Dollars 91.66 million, JPY 11,699 million and VND 216,308.98 million (31 December 2021: Baht 19,358.24 million, U.S. Dollars 91.66 million, JPY 11,699 million and VND 216,308.98 million).

Long-term borrowings

Details of principal features of the Group's long-term borrowings as at 31 December 2022 and 2021 were as follows:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Subsidiaries :				
1) Baht 3,730 million and U.S. Dollars 81 million Loan Facility Agreement at interest BIBOR 3M plus a margin, payable in three-months installments commencing in February 2017	-	1,971,145	-	-
2) Baht 4,080 million Loan Facility Agreement at interest THOR CMP BS 5BD plus a margin, payable in three-months installments commencing in November 2016	2,661,177	2,906,933	-	-



	Consolidated financial statements		Separate financial statements	
	2022	2021 (in thousand Baht)	2022	2021
3) JPY 11,007 million Loan Facility Agreement at interest TIBOR 6M plus a margin, payable in six-months installments commencing in December 2018	2,174,135	2,585,134	-	-
4) Baht 4,522 million and U.S. Dollars 82 million Loan Facility Agreement at interest THBFIX 6M plus a margin, payable in three-months installments commencing in August 2018	-	3,189,784	-	-
5) Baht 207 million Loan Facility Agreement at interest rate 4.43%, payable in three-months installments commencing in September 2017	125,517	138,670	-	-
6) Baht 3,048 million Loan Facility Agreement at interest rate THBFIX 6M plus a margin, payable in three-months installments commencing in December 2018	-	2,051,730	-	-
7) Baht 432 million Loan Facility Agreement at interest MLR less a discount, payable in monthly installments commencing in October 2018	308,005	336,511	308,005	366,511
8) Baht 402 million Loan Facility Agreement at interest rate THBFIX 6M plus a margin, payable in three-months installments commencing in May 2021	224,409	260,011	-	-
9) U.S. Dollars 17 million Loan Facility Agreement at interest rate LIBOR 3M, payable in three-months installments commencing in May 2021	1,209,254	1,247,317	-	-
10) Baht 430 million Loan Facility Agreement at interest rate THBFIX 6M plus a margin, payable in monthly installments commencing in August 2021	346,283	351,076	-	-
11) VND 7,154.49 million Loan Facility Agreement and U.S. Dollars 25.19 million at interest rate BLR 3M and LIBOR 3M plus a margin, payable in three-months installments commencing in August 2022	825,533	823,970	-	-
12) VND 7,154.49 million Loan Facility Agreement and U.S. Dollars 31.69 million at interest rate BLR 3M and LIBOR 3M plus a margin, payable in three-months installments commencing in September 2022	1,036,962	1,033,996	-	-

	Consolidated financial statements		Separate financial statements	
	2022	2021 (in thousand Baht)	2022	2021
13) Baht 316 million Loan Facility Agreement at interest rate BIBOR 1M plus a margin, payable in monthly installments commencing in June 2022	241,185	263,423	-	-
14) Baht 1,400 million Loan Facility Agreement at interest rate of 3.30%, payable in full amount in November 2025	1,400,000	-	1,400,000	-
15) Baht 983 million Loan Facility Agreement at interest rate BIBOR 1M plus a margin, payable in monthly installments commencing in February 2022	501,294	-	-	-
Total	11,053,754	17,159,700	1,708,005	366,511

Debentures

As at 31 December 2022, the Company has outstanding balances of issued unsecured, name registered, unsubordinated debentures. The details of issuance of debentures were as below:

Debenture issued on	30 April 2021
Unit and value	907,100 units at par value of Baht 1,000 each
Total debenture value	Baht 907.10 million
Period and maturity date	3 years will mature on 30 April 2023
Interest rate	Fixed rate of 3.7% per annum
Interest payment due	Every 3 months
Debenture issued on	30 April 2021
Unit and value	441,600 units at par value of Baht 1,000 each
Total debenture value	Baht 441.60 million
Period and maturity date	5 years will mature on 30 April 2025
Interest rate	Fixed rate of 4.2% per annum
Interest payment due	Every 3 months
Debenture issued on	22 April 2022
Unit and value	1,800,000 units at par value of Baht 1,000 each
Total debenture value	Baht 1,800 million
Period and maturity date	3 years 3 months will mature on 19 July 2024
Interest rate	Fixed rate of 4.10 % per annum
Interest payment due	Every 3 months

As at 31 December 2022, the Group had unutilised credit facilities totalling Baht 5,998.67 million and VND 38,967 million. (31 December 2021 : Baht 5,427.67 million and VND 38,967 million.).

The Group has to comply with certain conditions in accordance with those agreements including maintaining certain key financial ratios.

**16 Provisions for employee benefits****Defined benefit plan**

The Group and the Company operate a defined benefit plan based on the requirement of Thai Labour Protection Act B.E 2541 (1998) to provide retirement benefits to employees based on pensionable remuneration and length of service. The defined benefit plans expose the Group to actuarial risks, such as longevity risk, interest rate risk and market (investment) risk.

Present value of the defined benefit obligations	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
		(in thousand Baht)		
At 1 January	110,151	86,539	61,055	54,463
Include in profit or loss:				
Current service cost	12,360	11,024	5,296	721
Interest on obligation	1,702	2,236	758	1,189
	14,062	13,260	6,054	1,910
Included in other comprehensive income				
Actuarial gain (loss)				
- Financial assumptions	-	520	-	544
- Experience adjustment	-	13,373	-	7,454
	-	13,893	-	7,998
Change in ownership interest in subsidiaries to joint ventures (Note 10)	(456)	-	-	-
Benefits paid	(2,351)	(3,541)	(2,163)	(3,316)
At 31 December	121,406	110,151	64,946	61,055

Principal actuarial assumptions	Consolidated financial statements and Separate financial statements	
	2022	2021
	(%)	
Discount rate	2.27	2.27
Future salary growth	3.0 – 7.0	3.0 – 7.0
Turnover rate	0.0 – 30.0	0.0 – 30.0

Assumptions regarding future mortality have been based on published statistics and mortality tables.

At 31 December 2022, the weighted-average duration of the defined benefit obligation was 11.8 years (2021: 12.8 years.)

Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the employee benefit obligations by the amounts shown below.

Effect to the defined benefit obligation at 31 December	Consolidated financial statements			
	1% increase in assumption		1% decrease in assumption	
	2022	2021	2022	2021
		(in thousand Baht)		
Discount rate	(8,639)	(8,175)	9,871	9,300
Future salary growth	10,573	8,947	(9,385)	(7,974)

Effect to the defined benefit obligation at 31 December	Separate financial statements			
	1% increase in assumption		1% decrease in assumption	
	2022	2021	2022	2021
		(in thousand Baht)		
Discount rate	(3,497)	(3,445)	3,953	3,862
Future salary growth	4,336	3,734	(3,889)	(3,358)

17 Provisions for decommissioning costs of building and power plants

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
		(in thousand Baht)		
At 1 January	342,406	319,890	-	-
Additions	6,660	9,763	-	-
Decrease	(42,858)	-	-	-
Change in ownership interest in subsidiaries to joint ventures (Note 10)	(100,040)	-	-	-
Effect of movements in exchange rates	(11,895)	12,753	-	-
At 31 December	194,273	342,406	-	-

18 Additional paid-in capital and reserves**Share premium**

Section 51 of the Public Companies Act B.E. 2535 requires companies to set aside share subscription monies received in excess of the par value of the shares issued to a reserve account ("share premium"). Share premium is not available for dividend distribution.

***Legal reserve***

Section 116 of the Public Companies Act B.E. 2535 requires that a public company shall allocate not less than 5% of its annual net profit, less any accumulated losses brought forward, to a reserve account ("legal reserve"), until this account reaches an amount not less than 10% of the registered authorised capital. The legal reserve is not available for dividend distribution.

Other components of equity**Translation reserve**

The translation reserves comprises all foreign currency differences arising from the translation of the financial statements of foreign operations.

19 Segment information and disaggregation of revenue

Management determined that the Group has four reportable segments which are the Group's strategic divisions for products and services, and are managed separately because they require different technology and marketing strategies. For each of the strategic divisions, the chief operating decision maker (CODM) reviews internal management reports on at least a quarterly basis. The following summary describes the operations in each of the Group's reportable segments.

- Segment 1 Manufacturing and selling of equipments for electrical systems
- Segment 2 Generating and selling electricity
- Segment 3 Construction service
- Segment 4 Maintenance service, rental service and others

Each segment's performance is measured based on segment gross profit, as included in the internal management reports that are reviewed by the Group's CODM. Segment gross profit is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries. Inter-segment pricing is determined on an arm's length basis.



	Manufacturing and selling of equipments for electrical systems		Generating and selling electricity		Construction service		Maintenance service, rental service and others		Eliminations		Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
<i>For the year ended 31 December</i>												
	<i>(in thousand Baht)</i>											
Information about reportable segments												
External revenues	1,829,216	1,474,970	3,990,207	5,279,548	1,478,392	1,888,969	207,875	674,675	-	-	7,505,690	9,318,162
Inter-segment revenue	573,540	946,018	-	-	313,656	565,477	57,808	67,353	(945,004)	(1,578,848)	-	-
Total revenue	2,402,756	2,420,988	3,990,207	5,279,548	1,792,048	2,454,446	265,683	742,028	(945,004)	(1,578,848)	7,505,690	9,318,162
Disaggregation of revenue												
Primary geographical markets												
Thailand	2,401,013	2,418,868	2,493,211	3,739,080	1,792,048	2,454,446	265,683	742,028	(945,004)	(1,578,848)	6,006,951	7,775,574
Japan	-	-	830,914	931,850	-	-	-	-	-	-	830,914	931,850
Vietnam	-	-	666,082	608,618	-	-	-	-	-	-	666,082	608,618
Other countries	1,743	2,120	-	-	-	-	-	-	-	-	1,743	2,120
Total revenue	2,402,756	2,420,988	3,990,207	5,279,548	1,792,048	2,454,446	265,683	742,028	(945,004)	(1,578,848)	7,505,690	9,318,162
Timing of revenue recognition												
At a point in time	2,402,756	2,420,988	442,015	471,423	-	-	9,352	498,667	(573,540)	(946,018)	2,280,583	2,445,060
Over time	-	-	3,548,192	4,808,125	1,792,048	2,454,446	256,331	243,361	(371,464)	(632,830)	5,225,107	6,873,102
Total revenue	2,402,756	2,420,988	3,990,207	5,279,548	1,792,048	2,454,446	265,683	742,028	(945,004)	(1,578,848)	7,505,690	9,318,162
Segment gross profit	388,128	285,811	2,017,240	2,965,527	242,152	385,010	161,054	168,402	(29,320)	(60,088)	2,779,254	3,744,662
Segment assets	3,036,761	2,157,797	25,182,631	37,140,867	2,367,050	2,257,391	2,133,935	1,780,277	(388,915)	(850,978)	32,331,462	42,485,354

**(a) Reconciliation of reportable segment profit or loss**

	Consolidated financial statements	
	2022	2021
	<i>(in thousand Baht)</i>	
Profit or loss		
Total gross profit for reportable segments	2,779,254	3,744,662
Unallocated amounts		
- Other corporate expenses	(1,923,530)	(1,900,540)
- Gain on change in ownership interest in subsidiaries to joint ventures	1,330,723	-
- Gain on change in fair value of derivatives	618,030	377,397
- Share of profit of associates and joint ventures accounted for using equity method	510,642	217,837
Profit before income tax	3,315,119	2,439,356

(b) Geographical segments

In presenting information on the basis of geographical segments, segment revenue is based on the geographical location of customers. Segment assets are based on the geographical location of the assets.

Geographical information	Consolidated financial statements			
	Revenues		Assets	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Thailand	6,006,951	7,775,574	15,163,110	28,081,080
Japan	830,914	931,850	7,341,324	7,208,371
Vietnam	666,082	608,618	4,283,647	5,263,358
Other countries	1,743	2,120	1,674	99,860
Investments in associates and joint ventures	-	-	5,541,707	1,832,685
Total	7,505,690	9,318,162	32,331,462	42,485,354

(c) Major customer

Revenue from three customers of the Group's manufacturing and selling of equipments for electrical systems, generating and selling electricity and domestic construction service segments represent approximately Baht 3,297.94 million of the Group's total revenues (2021: three customers, amount Baht 4,510.80 million).

The Group recognises revenue in an amount that corresponds directly with the value to the customer of the date on which the performance obligations are satisfied.

(d) Promotional privileges

By virtue of the provisions of the Industrial Investment Promotion Act of B.E. 2520, the subsidiaries have been granted privileges by the Board of Investment relating to generate electricity from wind energy, solar energy and solar rooftop energy. The Group has been granted several privileges including exemption and/or reduction from payment of income tax on the net profit derived from promoted operations with certain terms and conditions prescribed in the promotional certificates.

Year ended 31 December	Consolidated financial statements			Consolidated financial statements		
	2022			2021		
	Promoted businesses	Non-promoted businesses	Total	Promoted businesses	Non-promoted businesses	Total
	<i>(in thousand Baht)</i>					
Export sales	-	1,498,755	1,498,755	-	1,554,108	1,554,108
Local sales	2,259,839	4,692,100	6,951,939	3,742,178	5,600,724	9,342,902
Eliminations	-	(945,004)	(945,004)	-	(1,578,848)	(1,578,848)
Total revenue	2,259,839	5,245,851	7,505,690	3,742,178	5,575,984	9,318,162

20 Expenses by nature

Significant expenses by nature are as follow:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	<i>(in thousand Baht)</i>			
Changes in inventories of finished goods and work in progress	(76,436)	(113,723)	126,851	(26,621)
Raw materials and consumables used	1,375,123	1,211,180	500,645	1,384,931
Construction costs	1,258,583	1,571,729	-	39,302
Depreciation and amortisation	1,312,593	1,541,984	32,675	30,842
Cost of sale of assets under finance lease	408,048	870,825	-	-
Employee benefit expenses	697,109	632,712	247,343	291,076
Operation and maintenance service fee	176,419	202,729	7,969	3,338
Bank charge and others service fee	141,819	109,607	9,500	24,052
Consulting fees	74,181	85,131	19,994	18,462
Utility expense and supplies used	88,546	65,258	15,744	8,344
Insurance premium	56,456	65,283	1,890	1,953



21 Finance costs

Note	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Interest expense				
Related parties	4	-	5,526	2,588
Loans and overdrafts		623,950	53,846	72,843
Total		655,612	59,372	75,431
Debtenture		192,140	192,140	252,538
Amortisation of financing fees		22,685	8,725	11,274
Others		31,485	881	1,599
Total		246,310	201,746	265,411
<i>Less</i> amounts included in the cost of qualifying assets:				
- Property, plant and equipment under construction		(5,639)	-	-
		(5,639)	-	-
Net		864,621	261,118	340,842

22 Income tax

Income tax recognised in profit or loss	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Current tax expense				
Current year	274,258	155,873	67,105	-
Deferred tax expense				
Movements in temporary differences	26,483	31,965	(356)	12,458
Total income tax expense	300,741	187,838	66,749	12,458

Reconciliation of effective tax rate

	Rate (%)	Consolidated financial statements		Rate (%)	2021
		2022	(in thousand Baht)		(in thousand Baht)
Profit before income tax expense			3,315,119		2,439,356
Income tax using the Thai corporation tax rate	20.0		663,023	20.0	487,871
Income not subject to tax			(517,181)		(248,883)
Expenses not deductible for tax purposes			193,446		34,856
Addition deductible expense for tax purpose			(2,947)		(5,911)
Recognition of previously unrecognised tax losses			(113,611)		(221,741)
Current year losses for which no deferred tax asset was recognised			35,884		123,560
Effect of different tax rates in each entity and others			42,127		18,086
Total	9.07		300,741	7.70	187,838

Reconciliation of effective tax rate

	Rate (%)	Separate financial statements		Rate (%)	2021
		2022	(in thousand Baht)		(in thousand Baht)
Profit before income tax expense			1,308,596		2,199,866
Income tax using the Thai corporation tax rate	20.0		261,719	20.0	439,973
Income not subject to tax			(274,774)		(320,056)
Expenses not deductible for tax purposes			192,961		989
Addition deductible expense for tax purpose			(200)		(168)
Recognition of previously unrecognised tax losses			(112,957)		(220,181)
Current year losses for which no deferred tax asset was recognised			-		111,901
Total	5.10		66,749	0.57	12,458

Deferred tax assets and liabilities

	Consolidated financial statements			
	Assets		Liabilities	
	2022	2021	2022	2021
	(in thousand Baht)			
Total	86,879	125,677	(168,123)	(328,904)
Set off of tax	(31,676)	(72,316)	31,676	72,316
Net deferred tax assets (liabilities)	55,203	53,361	(136,447)	(256,588)

Deferred tax assets and liabilities

	Separate financial statements			
	Assets		Liabilities	
	2022	2021	2022	2021
	(in thousand Baht)			
Total	28,185	27,047	(782)	-
Set off of tax	(782)	-	782	-
Net deferred tax assets	27,403	27,047	-	-



Consolidated financial statements

(Charged) / credited to

	At 1 January	Profit or loss	Other comprehensive income	Change in ownership interest in subsidiaries to joint ventures (Note 10) (in thousand Baht)	Effect of movements in exchange rates	At 31 December
2022						
Deferred tax assets						
Trade account receivable and other receivables	1,136	(1,025)	-	-	-	111
Inventories	9,416	(65)	-	-	-	9,351
Provisions	15,125	4,006	-	(5,463)	(42)	13,626
Provisions for employee benefit	21,897	2,353	-	(102)	-	24,148
Profit in inventories	4,733	352	-	-	-	5,085
Profit in property, plant and equipment	22,476	-	-	(19,142)	-	3,334
Profit in intangible assets	23,334	-	-	(23,109)	-	225
Property, plant and equipment	27,479	104	-	-	-	27,583
Lease liabilities	17	36	-	-	-	53
Prepaid expense	-	3,376	-	-	(77)	3,299
Loss carry forward	64	-	-	-	-	64
Total	125,677	9,137	-	(47,816)	(119)	86,879
Deferred tax liabilities						
Lease receivables	(28)	6	-	-	-	(22)
Derivatives	(1,327)	(25,412)	-	2,516	291	(23,932)
Property, plant and equipment	(23,576)	(9,268)	-	-	2	(32,842)
Right to power purchase agreement and right to operate (See note 14)	(303,072)	-	-	193,564	26	(109,482)
Lease liabilities	(887)	(897)	-	-	2	(1,782)
Others	(14)	(49)	-	-	-	(63)
Total	(328,904)	(35,620)	-	196,080	321	(168,123)
Net	(203,227)	(26,483)	-	148,264	202	(81,244)



Consolidated financial statements

(Charged) / credited to

	At 1 January	Profit or loss	Other comprehensive income	Equity	Effect of movements in exchange rates	At 31 December
				(in thousand Baht)		
2021						
Deferred tax assets						
Trade account receivable and other receivables	2,256	(1,120)	-	-	-	1,136
Derivatives	22,818	(22,818)	-	-	-	-
Inventories	9,371	45	-	-	-	9,416
Provisions	10,073	4,824	-	-	228	15,125
Provisions for employee benefit	17,219	1,989	(2,779)	(90)	-	21,897
Profit in inventories	6,149	(1,416)	-	-	-	4,733
Profit in property, plant and equipment	22,476	-	-	-	-	22,476
Profit in intangible assets	23,334	-	-	-	-	23,334
Property, plant and equipment	27,479	-	-	-	-	27,479
Leases liabilities	11	-	-	-	-	17
Loss carry forward	64	6	-	-	-	64
Total	141,250	(18,490)	(2,779)	(90)	228	125,677
Deferred tax liabilities						
Lease receivables	-	(28)	-	-	-	(28)
Derivatives	-	(1,327)	-	-	-	(1,327)
Property, plant and equipment	(11,123)	(12,543)	-	90	-	(23,576)
Right to power purchase agreement and right to operate (See note 14)	(298,674)	-	-	-	(4,398)	(303,072)
Leases liabilities	(1,275)	388	-	-	-	(887)
Others	(49)	35	-	-	-	(14)
Total	(311,121)	(13,475)	-	90	(4,398)	(328,904)
Net	(169,871)	(31,965)	2,779	-	(4,170)	(203,227)



Separate financial statements

	(Charged)/ credited to:			
	At 1 January	Profit or loss	Other comprehensive income	At 31 December
	(in thousand Baht)			
Deferred tax				
2022				
Deferred tax assets				
Trade account receivable and other receivables	210	(76)	-	134
Inventories	4,250	-	-	4,250
Provisions	281	(163)	-	118
Provisions for employee benefit	12,211	778	-	12,989
Derivative	10,084	610	-	10,694
Lease liabilities	11	(11)	-	-
Total	27,047	1,138	-	28,185
Deferred tax liabilities				
Lease liabilities	-	(782)	-	(782)
Total	-	(782)	-	(782)
Net	27,047	356	-	27,403
2021				
Deferred tax assets				
Trade account receivable and other receivables	1,330	(1,120)	-	210
Inventories	4,250	-	-	4,250
Provisions	315	(34)	-	281
Provisions for employee benefit	10,893	(281)	1,599	12,211
Derivative	21,543	(11,459)	-	10,084
Loss carry forward	-	11	-	11
Total	38,331	(12,883)	1,599	27,047
Deferred tax liabilities				
Leases liabilities	(425)	425	-	-
Total	(425)	425	-	-
Net	37,906	(12,458)	1,599	27,047
Unrecognised deferred tax assets				
	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Loss carry forward	39,430	122,953	-	110,269
Total	39,430	122,953	-	110,269

The tax losses expire in 2027. The Group has not recognised these items as deferred tax assets because it is not probable that the Group will have sufficient future taxable profit to utilise the benefits therefrom.

23 Earnings per share

The calculations of basic earnings per share for the year ended 31 December 2022 and 2021 were based on the profit for the year attributable to ordinary shareholders of the Company and the weighted average number of ordinary shares outstanding during the year after adjusting the number of treasury shares as follows:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
<i>(in thousand Baht/ thousand shares)</i>				
Profit attributable to ordinary shareholders for the year ended 31 December	3,010,519	2,229,270	1,241,847	2,187,407
Number of ordinary shares outstanding as at 1 January				
- ordinary shares of Baht 0.25 each	8,882,531	8,882,531	8,882,531	8,882,531
Effect of treasury shares	-	(46,451)	-	(46,451)
Weighted average number of ordinary shares outstanding at 31 December	8,882,531	8,836,080	8,882,531	8,836,080
Earnings per share (basic) (in Baht)	0.34	0.25	0.14	0.25

24 Dividend

	Approval date	Payment schedule	Dividend rate per share (Baht)	Legal reserve	
				Amount (in thousand Baht)	
2022					
Annual dividend 2021	27 April 2022	May 2022	0.120	1,065,901	-
Interim dividend	10 November 2022	December 2022	0.06	532,949	-
				1,598,850	-
2021					
Annual dividend 2020	28 April 2021	May 2021	0.182	1,598,566	-
Interim dividend	11 August 2021	September 2021	0.06	532,946	-
				2,131,512	-

25 Financial instruments

(a) Carrying amounts and fair values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy for financial instruments measured at fair value. It does not include fair value information for financial assets and financial liabilities not measured at fair value if the carrying amount is a reasonable approximation of fair value.



	Consolidated financial statements					Fair value			
	Fair value – applied hedge accounting	Fair value through profit or loss	Carrying amount Fair value through other comprehensive income	Amortised cost - net (in thousand Baht)	Total	Level 1	Level 2	Level 3	Total
At 31 December 2022									
Financial assets									
Other current financial assets	-	301,246	-	-	301,246	-	301,246	-	301,246
Interest rate swap contracts	-	370,807	-	-	370,807	-	370,807	-	370,807
Total financial assets	-	672,053	-	-	672,053				
Financial liabilities									
Loans from financial institutions	-	-	-	1,525,517	1,525,517	-	1,508,300	-	1,508,300
Debentures	-	-	-	3,144,133	3,144,133	-	3,127,470	-	3,127,470
Interest rate swap contracts	-	7,606	-	-	7,606	-	7,606	-	7,606
Cross currency and interest rate swap contracts	-	53,473	-	-	53,473	-	53,473	-	53,473
Total financial liabilities	-	61,079	-	4,669,650	4,730,729				
At 31 December 2021									
Financial assets									
Other current financial assets	-	19,198	-	-	19,198	-	19,198	-	19,198
Forward exchange contracts	-	1,692	-	-	1,692	-	1,692	-	1,692
Interest rate swap contracts	-	53,520	-	-	53,520	-	53,520	-	53,520
Total financial assets	-	74,410	-	-	74,410				
Financial liabilities									
Loans from financial institutions	-	-	-	138,670	138,670	-	134,081	-	134,081
Debentures	-	-	-	5,939,791	5,939,791	-	5,975,966	-	5,975,966
Interest rate swap contracts	-	207,467	-	-	207,467	-	207,467	-	207,467
Cross currency and interest rate swap contracts	-	56,789	-	-	56,789	-	56,789	-	56,789
Total financial liabilities	-	264,256	-	6,078,461	6,342,717				



	Carrying amount			Separate financial statements		Fair value			
	Fair value – applied hedge accounting	Fair value through profit or loss	Fair value through other comprehensive income	Amortised cost - net (in thousand Baht)	Total	Level 1	Level 2	Level 3	Total
At 31 December 2022									
Financial assets									
Forward exchange contracts	-	200,020	-	-	200,020	-	200,020	-	200,020
Total financial assets	-	200,020	-	-	200,020				
Financial liabilities									
Loans from financial institutions	-	-	-	1,400,000	1,400,000	-	1,389,204	-	1,389,204
Debentures	-	-	-	3,144,133	3,144,133	-	3,127,470	-	3,127,470
Cross currency and interest rate swap contracts	-	53,473	-	-	53,473	-	53,473	-	53,473
Total financial liabilities	-	53,473	-	4,544,133	4,597,606				
At 31 December 2021									
Financial assets									
Forward exchange contracts	-	622	-	-	622	-	622	-	622
Total financial assets	-	622	-	-	622				
Financial liabilities									
Debentures	-	-	-	5,939,791	5,939,791	-	5,975,966	-	5,975,966
Cross currency and interest rate swap contracts	-	56,789	-	-	56,789	-	56,789	-	56,789
Total financial liabilities	-	56,789	-	5,939,791	5,996,580				

**Financial instruments measured at fair value**

Type	Valuation technique
Investments in marketable unit trusts classified as financial assets measured at FVTPL or FVOCI	The net asset value as of the reporting date.
Interest rate swaps contracts	<i>Swap models:</i> The present value of estimated future cash flows, using an observable yield curve.
Forward exchange contracts	<i>Forward pricing:</i> The fair value is determined using quoted forward exchange rates at the reporting date and present value calculations based on high credit quality yield curves in the respective currencies.
Cross currency and interest rate swap contracts	Derived by using a valuation technique incorporating observable market data.

Financial instruments not measured at fair value

Type	Valuation technique
Long-term loans	Discounted cash flow
Debentures	Bid prices from the Thai Bond Market Association as of the reporting date. If not available, the Government Bond Yield Curve from the Thai Bond Market Association for the same period is used, adjusted by an appropriate risk premium.

(b) Movement of marketable debt securities

Marketable debt securities	Consolidated financial statements				At 31 December
	At 1 January	Purchase	Disposal	Fair Value adjustment (in thousand Baht)	
2022					
Other current financial assets					
Investments in marketable unit trusts	19,198	2,026,800	(1,745,000)	248	301,246
Total	19,198	2,026,800	(1,745,000)	248	301,246
2021					
Other current financial assets					
Investments in marketable unit trusts	162,315	2,434,500	(2,577,472)	(145)	19,198
Total	162,315	2,434,500	(2,577,472)	(145)	19,198

Marketable debt securities	Separate financial statements				At 31 December
	At 1 January	Purchase	Disposal (in thousand Baht)	Fair Value adjustment	
2022					
Other current financial assets					
Investments in marketable unit trusts	-	1,850,000	(1,650,000)	20	200,020
Total	-	1,850,000	(1,650,000)	20	200,020
2021					
Other current financial assets					
Investments in marketable unit trusts	82,000	2,259,500	(2,341,500)	-	-
Total	82,000	2,259,500	(2,341,500)	-	-

(c) Financial risk management policies**Risk management framework**

The Group's board of directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The board of directors has established the risk management committee, which is responsible for developing and monitoring the Group's risk management policies. The committee reports regularly to the board of directors on its activities.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, to set appropriate risk limits and controls and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities. The Group, through its training and management standards and procedures, aims to maintain a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Group audit committee oversees how management monitors compliance with the Group's risk management policies and procedures, and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Group audit committee is assisted in its oversight role by internal audit. Internal audit undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the audit committee.

(c.1) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Group's receivables from customers.

(c.1.1) Trade accounts receivables and unbilled receivables

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, management also considers the factors that may influence the credit risk of its customer base, including the default risk associated with the industry and country in which customers operate. Detail of concentration of revenue are included in note 21(b) and 21(c).



The risk management committee has established a credit policy under which each new customer is analysed individually for creditworthiness before the Group's commercial terms and conditions are offered. The Group's review includes external ratings, if they are available, financial statements, credit agency information, industry information and in some cases bank references. Sale limits are established for each customer and reviewed regularly. Any sales exceeding those limits require approval from the management.

The Group limits its exposure to credit risk from trade accounts receivables by establishing a maximum payment period. Outstanding trade receivables are regularly monitored by the Group. An impairment analysis is performed by the Group at each reporting date. The provision rates of expected credit loss are based on days past due for individual trade receivables or groupings of various customer segments with similar credit risks to reflect differences between economic conditions in the past, current conditions and the Group's view of economic conditions over the expected lives of the receivables.

The Group has concentrations of credit risk since most of its revenues are contracted under long-term agreements with a small number of parties. However, counterparties are generally government authorities and large public or private corporations, and the risk perceived is low.

(c.1.2) Cash and cash equivalent and derivatives

The Group's exposure to credit risk arising from cash and cash equivalents and derivative assets is limited because the counterparties are banks and financial institutions which the Group considers to have low credit risk.

(c.2) Liquidity risk

The Group monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Group's operations and to mitigate the effects of fluctuations in cash flows.

The following table are the remaining contractual maturities of financial liabilities at the reporting date. The amounts are gross and undiscounted and include contractual interest payments and exclude the impact of netting agreements.

At 31 December 2022	Consolidated financial statements					
	Carrying amount	At call	Contractual cash flows			Total
			Within 1 year (in thousand Baht)	1 - 5 years	More than 5 years	
Non-derivative financial liabilities						
Short-term loans from financial institutions	481,652	150,000	331,652	-	-	481,652
Trade and other current payables	1,692,725	-	1,687,391	5,334	-	1,692,725
Payable for purchases of assets	35,602	-	35,602	-	-	35,602
Payables for share subscription	80,233	-	80,233	-	-	80,233
Retention payables	106,332	-	69,717	36,351	264	106,332
Loans from financial institutions	11,053,754	-	1,281,492	6,223,714	6,203,116	13,708,322
Debentures	3,144,133	-	1,010,482	2,306,936	-	3,317,418
Lease liabilities	462,537	-	65,841	156,540	507,821	730,202
Other non-current financial liabilities	618	-	-	-	618	618
	17,057,586	150,000	4,562,410	8,728,875	6,711,819	20,153,104
Derivative financial liabilities						
Cross currency and interest rate swap contracts						
- Cash outflow	(53,473)	-	(127,045)	(539,745)	-	(666,790)
- Cash inflow	-	-	119,505	491,522	-	611,027
	(53,473)	-	(7,540)	(48,223)	-	(55,763)
Derivative financial assets						
Interest rate swap contracts						
- Cash outflow	-	-	(291,795)	(1,065,021)	(1,415,728)	(2,772,544)
- Cash inflow	370,807	-	352,153	1,257,567	1,597,438	3,207,158
	370,807	-	60,358	192,546	181,710	434,614



Consolidated financial statements

At 31 December 2021	Contractual cash flows					
	Carrying amount	At call	Within 1 year (in thousand Baht)	1 – 5 years	More than 5 years	Total
Non-derivative financial liabilities						
Short-term loans from financial institutions	1,644,688	394,100	1,251,944	-	-	1,646,044
Trade and other current payables	1,681,236	-	1,681,236	-	-	1,681,236
Payable for purchases of assets	50,920	-	50,920	-	-	50,920
Payables for share subscription	142,024	-	142,024	-	-	142,024
Retention payables	361,693	-	343,873	17,820	-	361,693
Loans from financial institutions	17,159,700	-	2,118,856	9,165,524	8,381,446	19,665,826
Debentures	5,939,791	-	2,989,773	3,317,418	-	6,307,191
Lease liabilities	566,695	-	66,849	188,442	660,582	915,873
Other non-current financial liabilities	618	-	-	-	618	618
	<u>27,547,365</u>	<u>394,100</u>	<u>8,645,475</u>	<u>12,689,204</u>	<u>9,042,646</u>	<u>30,771,425</u>
Derivative financial liabilities						
Cross currency and interest rate swap contracts						
- Cash outflow	(56,789)	-	(124,507)	(523,841)	(142,949)	(791,297)
- Cash inflow	-	-	113,855	485,625	133,463	732,943
Interest rate swap contracts						
- Cash outflow	(207,467)	-	(470,573)	(1,378,183)	(1,096,084)	(2,944,840)
- Cash inflow	-	-	325,663	1,290,765	1,179,069	2,795,497
	<u>(264,256)</u>	<u>-</u>	<u>(155,562)</u>	<u>(125,634)</u>	<u>73,499</u>	<u>(207,697)</u>

Separate financial statements

At 31 December 2022	Contractual cash flows					
	Carrying amount	At call	Within 1 year (in thousand Baht)	1 – 5 years	More than 5 years	Total
Non-derivative financial liabilities						
Short-term loan from related parties	1,266,700	1,266,700	-	-	-	1,266,700
Trade and other current payables	174,943	-	174,943	-	-	174,943
Payables for share subscription	175	-	175	-	-	175
Retention payables	3,491	-	3,325	166	-	3,491
Loans from financial institutions	1,708,005	-	39,024	1,546,185	182,229	1,767,438
Debentures	3,144,133	-	1,010,482	2,306,936	-	3,317,418
Lease liabilities	34,274	-	21,693	14,206	-	35,899
Other non-current financial liabilities	618	-	-	-	618	618
	<u>6,332,339</u>	<u>1,266,700</u>	<u>1,249,642</u>	<u>3,867,493</u>	<u>182,847</u>	<u>6,566,682</u>
Derivative financial liabilities						
Cross currency and interest rate swap contracts						
- Cash outflow	(53,473)	-	(127,045)	(539,745)	-	(666,790)
- Cash inflow	-	-	119,505	491,522	-	611,027
	<u>(53,473)</u>	<u>-</u>	<u>(7,540)</u>	<u>(48,223)</u>	<u>-</u>	<u>(55,763)</u>
At 31 December 2021						
Non-derivative financial liabilities						
Short-term loan from related parties	1,219,551	294,100	926,807	-	-	1,220,907
Short-term loan from related parties	95,000	95,000	-	-	-	95,000
Trade and other current payables	381,431	-	381,431	-	-	381,431
Retention payables	2,726	-	2,122	604	-	2,726
Loans from financial institutions	336,511	-	38,392	145,093	213,962	397,447
Debentures	5,939,791	-	2,989,773	3,317,418	-	6,307,191
Lease liabilities	44,310	-	20,531	25,912	-	46,443
Other non-current financial liabilities	618	-	-	-	618	618
	<u>8,019,938</u>	<u>389,100</u>	<u>4,359,056</u>	<u>3,489,027</u>	<u>214,580</u>	<u>8,451,763</u>
Derivative financial liabilities						
Cross currency and interest rate swap contracts						
- Cash outflow	(56,789)	-	(124,507)	(523,841)	(142,949)	(791,297)
- Cash inflow	-	-	113,855	485,625	133,463	732,943
	<u>(56,789)</u>	<u>-</u>	<u>(10,652)</u>	<u>(38,216)</u>	<u>(9,486)</u>	<u>(58,354)</u>



The cash outflows disclosed in the above table represent the contractual undiscounted cash flows relating to derivative financial liabilities held for risk management purposes and which are not usually closed out before contractual maturity. The disclosure shows net cash flow amounts for derivatives that are net cash-settled and gross cash inflow and outflow amounts for derivatives that have simultaneous gross cash settlement.

(c.3) Market risk

Managing interest rate benchmark reform (IBOR reform)

The Group monitors the progress of transition from IBOR to new benchmark rate by reviewing the total amounts of contracts that have yet to transition to an alternative benchmark rate which the Group is currently considering amend the contract. As at 31 December 2022, total amounts of financial instruments that have yet to transition to an alternative benchmark rates is JPY 6,800.21 million and U.S. Dollars 69.01 million.

(c.3.1) Foreign currency risk

The Group is exposed to foreign currency risk relating to purchases material, purchases of asset, costs of operation and maintenance and have long-term loan which are denominated in foreign currencies. However, the Group entered into cross currency and interest rate swap contracts to mitigate the exposure of foreign exchange rate. At 31 December, the Group and the Company were exposed to foreign currency risk in respect of financial assets and liabilities denominated in the following currencies:



Consolidated financial statements

	31 December 2022			31 December 2021		
	United States Dollars	Euro	Total (in thousand Baht)	United States Dollars	Euro	Total
Exposure to foreign currency						
Cash and cash equivalents	105,707	265	105,972	111,048	273	111,321
Trade and other current receivables	699	-	699	42,442	-	42,442
Deposits from financial institution pledged as collateral	-	-	-	153,148	-	153,148
Interest-bearing liabilities	(264,418)	-	(264,418)	(147,335)	-	(147,335)
Trade and other current payables	(58,219)	(82)	(58,301)	(246,958)	(53,973)	(300,931)
Payable for purchases of assets	(2,829)	-	(2,829)	(11,228)	-	(11,228)
Retention payables	-	-	-	(154,528)	-	(154,528)
Net statement of financial position exposure	(219,060)	183	(218,877)	(253,411)	(53,700)	(307,111)
Estimated payable for operation and maintenance service fee of power plants	-	-	-	(576,559)	(236,934)	(813,493)
Estimated trade payables	(206,734)	-	(206,734)	(114,588)	-	(114,588)
Gross exposure	(425,794)	183	(425,611)	(944,558)	(290,634)	(1,235,192)
Cross currency and interest rate swap contracts	655,209	-	655,209	774,973	-	774,973
Forward exchange contracts	299,495	-	299,495	114,588	-	114,588
Net exposure	528,910	183	529,093	(54,997)	(290,634)	(345,631)



Separate financial statements

	31 December 2022			31 December 2021			
	United States Dollars	Euro	Total	United States Dollars	Japanese Yen	Euro	Total
<i>Exposure to foreign currency</i>				<i>(in thousand Baht)</i>			
Cash and cash equivalents	98,778	262	99,040	103,229	-	270	103,499
Trade and other current receivables	699	-	699	1,365	-	-	1,365
Short-term loans to related parties	-	-	-	-	37,626	-	37,626
Interest-bearing liabilities	-	-	-	(6,807)	-	-	(6,807)
Trade accounts payable	(1,841)	-	(1,841)	(131,112)	-	(17)	(131,129)
Net statement of financial position exposure	97,636	262	97,898	(33,325)	37,626	253	4,554
Estimated trade payables	-	-	-	(60,728)	-	-	(60,728)
Gross exposure	97,636	262	97,898	(94,053)	37,626	253	(56,174)
Cross currency and interest rate swap contracts	655,209	-	655,209	774,973	-	-	774,973
Forward exchange contracts	-	-	-	60,728	-	-	60,728
Net exposure	752,845	262	753,107	741,648	37,626	253	779,527

**Cross currency and interest rate swap contracts**

The Group is exposed to foreign currency risk relating to purchases goods, purchases assets and long-term loans which are denominated in foreign currencies. However, the Group entered into cross-currency and interest rate swap contracts for migrates effect of exchange rate.

As at 31 December 2022, the Group has outstanding cross currency and interest rate swap contracts as follow:

Currency and Interest Receive Rate Swap agreements	Currency and Interest Pay Rate Swap agreements	Termination date
U.S. dollars 7.45 million at the rate 0.00%	Baht 260.82 million at the rate 0.65%	24 February 2027
U.S. dollars 11.27 million at the rate 0.00%	Baht 394.38 million at the rate 0.65%	15 November 2027

Sensitivity analysis

A reasonably possible strengthening (weakening) of Thai Baht against all other foreign currencies at the reporting date would have affected the measurement of financial instruments denominated in a foreign currency. This analysis assumes that all other variables, in particular interest rates, remain constant.

<i>Impact to profit or loss</i>	Movement (%)	Consolidated financial statements		Separate financial statements	
		Strengthening	Weakening <i>(in thousand Baht)</i>	Strengthening	Weakening
<i>At 31 December 2022</i>					
United States Dollars	1.00	2,191	(2,191)	(976)	976
Euro	1.00	(2)	2	(3)	3
<i>At 31 December 2021</i>					
United States Dollars	1.00	2,534	(2,534)	333	(333)
Euro	1.00	537	(537)	(3)	3
Japanese Yen	1.00	-	-	(376)	376

(c.3.2) Interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Group's operations and its cash flows because loan interest rates are mainly floated. The Group is primarily exposed to interest rate risk from its borrowings (see note 15). The Group mitigates this risk by ensuring that the majority of its borrowings are at fixed interest rates and uses derivatives, principally interest rate swaps, to manage exposure to fluctuations in interest rates on specific debt securities and borrowings.

Exposure to interest rate risk at 31 December	Consolidated financial statements		Separate financial statements	
	2022	2021 (in thousand Baht)	2022	2021
Loans from financial institutions	11,131,084	17,352,175	1,709,600	367,200
Interest rate swap contracts	(8,103,195)	(14,894,789)	-	-
Net	3,027,889	2,457,386	1,709,600	367,200

Interest Rate Swap Agreements

As at 31 December 2022, the Group has outstanding interest rate swap agreements as follow:

Loan facility and outstanding principal	Interest Receive Rate Swap agreements	Interest Pay Rate Swap agreements	Termination date
Loan facility of Baht 4,080 million and the outstanding principal in interest rate swap agreement of Baht 2,679.44 million.	Floating rate THOR CMP BS 5BD +1.7 per annum	Fixed coupon rate 3.00% per annum	29 April 2033
Loan facility of JPY 11,699 million and the outstanding principal in interest rate swap agreement of JPY 6,800.21 million.	Floating rate TIBOR 6M +1.3% per annum	Fixed coupon rate 2.126% per annum	30 June 2036
Loan facility of U.S. Dollars 33.93 million and the outstanding principal in interest rate swap agreement of U.S. Dollars 29.11 million.	Floating rate LIBOR 3M per annum	Fixed coupon rate 0.68% and 1.00% per annum	31 March 2033
Loan facility of U.S. Dollars 20.90 million and the outstanding principal in interest rate swap agreement of U.S. Dollars 19.95 million.	Floating rate LIBOR 3M per annum	Fixed coupon rate 1.715 per annum	31 December 2031
Loan facility of U.S. Dollars 20.40 million and the outstanding principal in interest rate swap agreement of U.S. Dollars 19.95 million.	Floating rate LIBOR 3M per annum	Fixed coupon rate 3.42 per annum	30 June 2036

Cash flow sensitivity analysis for variable-rate instruments

A reasonable possible change of 1% in interest rates at the reporting date; this analysis assumes that all other variables, in particular foreign currency exchange rates, remain constant.

Impact to profit or loss	Consolidated financial statements		Separate financial statements	
	1% increase in interest rate	1% decrease in interest rate (in thousand Baht)	1% increase in interest rate	1% decrease in interest rate
2022				
Cash flow sensitivity (net)	(30,279)	30,279	(17,096)	17,096
2021				
Cash flow sensitivity (net)	(24,574)	24,574	(3,384)	3,384

(d) Capital management

The Board of Directors' policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board regularly monitors the return on capital, by evaluating result from operating activities divided by total shareholders' equity, excluding non-controlling interests and also monitors the level of dividends to ordinary shareholders.

**26 Commitments with non-related parties**

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	(in thousand Baht)			
Capital commitment				
Design, construction and installment for project under construction	6,979	44,422	-	-
Total	6,979	44,422	-	-

Letters of Guarantee

The Group and the Company had commitment to local banks and Thailand office of foreign financial institutions for letter of guarantee issued for sales and purchase of electricity, electricity used, purchase of machinery and rental agreements to certain government sector and private sectors. As at 31 December 2022, the Group had outstanding commitments being amount of Baht 3,236.90 million and U.S. Dollars 0.19 million (31 December 2021: Baht 2,044.29 million).

Significant Agreements**Consultant Agreement**

The Group was committed the consultant fee to prepare environmental impact reports, consultant fee of project development and engineering feasibility studies. As at 31 December 2022, the Group had outstanding commitments being amount of Baht 2.20 million and JPY 231 million (31 December 2021: Baht 6.71 million and JPY 245.40 million).

Service Agreement

The Group had obligation commitment in operation and maintenance service of power plant contracts. As at 31 December 2022, the Group outstanding obligation remains at Baht 27.08 million, U.S. Dollars 1.84 million, JPY 3,575.89 million and VND 24,124.72 million. (31 December 2021: Baht 46.81 million, EUR 6.19 million, U.S. Dollars 19.84 million, JPY 3,759.19 million and VND 32,522.14 million).

Power Purchase Agreement

The Group has the power purchase agreements for 15 - 25 years, 5 years and renew 5 years automatically with the Electricity Generating Authority of Thailand, Provincial Electricity Authority, Metropolitan Electricity Authority, including power purchase agreements in overseas and private sectors whereby the Group will supply the electric energy at the agreed quantity and price. The Group must comply with conditions and restrictions provided for in the agreement.

27 Events after the reporting period

At the Board of Directors' meeting of the Company held on 27 February 2023, the Board approved to submit for approval at the annual general meeting of the shareholders of the Company on 21 April 2023. The appropriation of the profit allocation from the results of the Company's operation and retained earnings to be cash dividend at the rate of Baht 0.06 per share, total amount does not exceed Baht 535 million. The balance of dividend is subject to the approval of the shareholders at the annual general on 21 April 2023.



Part 4

Attachments

Attachment 1

Details of Directors, Executives, Controlling Persons, the Person Assigned to Take the Highest Responsibility in Accounting and Finance, the Person Supervising Accounting and the Company Secretary285

Attachment 2

Details of the Company's Directors and Executives holding Directorial or Executive Position in Subsidiaries, Associated/ Joint Ventures, and Related Companies, and Details of the Subsidiaries' Directors318

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Attachment 1

1.1 Details of Directors, Executives, Controlling Persons, the Person Assigned to Take the Highest Responsibility in Accounting and Finance, the Person Supervising Accounting and the Company Secretary

Dr. Gunkul Dhumrongpiyawut

- Chairman of the Board of Directors
(Non-Executive Director)

Date and month of appointment as Director

- 10th August 2009 (13 Years 5 months)

Age 68 Years



Educational Qualifications

- The Honorary Doctor of Engineering, Rajamangala University of Technology Thanyaburi in 2018
- The Honorary Doctor of Art, Rajamangala University of Technology Phra Nakhon in 2016
- Honorary Master of Engineering, Western University in 2010

Training History

- The program of senior executives on justice administration, Class 25/2021, Judicial Training Institute
- Intermediate Certificate Courses - Good Governance for Medical Executives Class 8/2020 (IGM8), The Medical Council together with King Prajadhipok's Institute
- Thai - Chinese Leadership Studies (TCL) Class 2/2019, Huachiew Chalermprakiet University
- Rule of Law for Democracy Class 6/2018 (RLD.6), College of the Constitutional Court
- Top Executives Program Class 15/2012, Capital Market Academy
- Director Certification Program (DCP) Class 111/2008, Thai Institute of Director (IOD)
- Director Accreditation Program (DAP) Class 70/2008, Thai Institute of Director (IOD)
- Managing Finance for Business Owners by Peter Ho in 2007
- Secrets to Doubling Your Sales, Productivity & Profits Program in 2006
- Anti-Corruption Training Course

Training in 2022

- Seminar on "Anti-Corruption Guidelines", The Office of Continuing Education, Sukhothai Thammathirat Open University



Working Experience during the Past 5 Years

GUNKUL's Group

2012 - Present	Gunkul Engineering PCL	Chairman of the Board of Directors (Non-Executive Director)
2009 - Present	Gunkul Engineering PCL	Director

Other Companies/ Entities

2020 - Present	Green Field Energy Co., Ltd.	Director
2017 - Present	Group of Great Miracle Asset (14 Companies)	Director
1996 - Present	Gunkul Marine Line Co., Ltd.	Director
1994 - Present	G.M. Supply and Construction Co., Ltd.	Director
1991 - Present	Gunkul Group Co., Ltd.	Director
2000 - 2022	Gunkul Engineering (2000) Co., Ltd. ¹⁾	Director

Remarks : ¹⁾ During the process of liquidation

Pride Award

Year	List
2020	"National Model Father" Award by presentation from Dusit District, Bangkok
2015	Outstanding Award Category "Company Performance Awards of the Year 2015" at the SET Awards 2015, The Stock Exchange of Thailand Outstanding Establishment Award for Promotion of Skill Development from the Minister of Labor General Surasak Kanchanarat Received Plaque of Honor for Contributors to Education from Mrs. Phusadee Tamtai, Deputy Governor of Bangkok
2014	"National Outstanding Father" Award by presentation from Dusit District, Bangkok Outstanding Award Category "Investor Relations Awards of the Year 2014" at the SET Awards 2014, The Stock Exchange of Thailand Shortlisted and certified by CNBC Asia at "CNBC's 13th Asia Business Leaders Awards 2014" in Singapore. Received a plaque of honor as a sponsor of the university from Associate Professor Dr. Sakkarin Phumirat, President of King Mongkut's University of Technology Thonburi

Year	List
2013	Outstanding Award Category "Investor Relations Awards of the Year 2013" at the SET Awards 2013, The Stock Exchange of Thailand CSR-DIW for beginner 2013 Award by Department of Industrial Works, Ministry of Industry Plaque of Honor for those who have made contributions to the school's education under the Dusit District Office
2012	Received the Golden Bell Award from Somdej Phra Maharatchamongkhalachan and Received a Golden Bell Shield from H.E. General Phichit Kullavanich, Privy Councilor by the Assembly of Radio, Television News, Newspaper Programmers of Thailand
2011	Received Plaque of Honor for Good Corporate Governance from Mr. Panthep Klanarongran, Chairman of the National Anti-Corruption Commission (NACC)

Number of companies currently holding the position of a director

- Listed Company (s) : 1
Gunkul Engineering PCL
Chairman of the Board of Directors
(Non-Executive Director)
- Non-Listed Company (s) : 19

Share Holding Percentage as at 31st December 2022

- 240,712,170 shares, representing 2.7100 percent of the issued and paid-up capital

Relationship between Management

- Spouse of Ms. Sopacha Dhumrongpiyawut and Father of Ms. Naruechon Dhumrongpiyawut



Dr. Chongrak Rarueysong

- Director (Independent Director)
- Chairman of the Audit Committee ¹⁾
- Member of the Good Corporate Governance and Sustainable Development Committee ^{1) 2)}

Date and month of appointment as Director, Member of the Audit Committee and Member of the Good Corporate Governance and Sustainable Development Committee

- 3rd July 2015 (7 Years 6 months)/ 3rd July 2015 (7 Years 6 months)/ 3rd July 2015 (7 Years 6 months)

Age 69 Years



Educational Qualifications

- Ph.D., Economics, University of Illinois at Urbana - Champaign, U.S.A.
- Bachelor of Economics (Hons), Thammasat University

History of Training Programs

- Certificate, Economic Statistics, United Nations (UN)
- Certificate, Public Finance, International Monetary Fund (IMF)
- Certificate, Securities Market, U.S. Securities and Exchange Commission (SEC)
- Certificate, Directors Certification Program (DCP), Class 14/2002, Thai Institute of Director (IOD)
- Certificate, Effective Audit Committee, Class 4/2002, Thai Institute of Director (IOD)
- Certificate, Japan Capital Market, Japan Securities Dealers Association (JSDA)

Training in 2022

- Seminar on “Anti-Corruption Guidelines”, The Office of Continuing Education, Sukhothai Thammathirat Open University
- Seminar on “Cyber Armor : Capital Market Board Awareness 2022”, The Securities and Exchange Commission, Thailand
- Seminar on “2022 Board and Audit Committee Priorities”

Working Experience during the Past 5 Years

GUNKUL's Group

2020 - Present	Gunkul Engineering Public Company Limited	Director (Independent Director) / Chairman of the Audit Committee / Member of the Good Corporate Governance and Sustainable Development Committee ²⁾
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2015 - 2020	Gunkul Engineering Public Company Limited	Director (Independent Director) / Member of the Audit Committee / Chairman of the Good Corporate Governance Committee
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Other Companies/ Entities

2022 - Present	Kingsford Securities PCL	Director/ Chairman of the Audit Committee
2022 - Present	Kantana Holdings Co., Ltd.	Director/ Chairman of the Audit Committee/ Member of the Nomination and Remuneration Committee/ Member of the Corporate Governance and Sustainability Group Executive Committee
2016 - 2022	Kingsford Holdings Public Company Limited	Group Executive Committee
2020 - 2020	Apple Cash Company Limited	Director
2018 - 2020	Hatari Wireless Company Limited	Director
2004 - 2014	KTB Computer Services Company Limited	Director/ Chairman of the Audit Committee
2002 - 2003	PTT Public Company Limited	Director/ Member of the Audit Committee
2001 - 2007	Thai Bond Dealing Centre	Director
2001 - 2002	Petroleum Authority of Thailand	Director
1998 - 2007	TRIS Corporation Limited	Director
1998 - 2007	Thailand Securities Institute	Director
1996 - 2012	Thai Securities Finance Company Limited	Director/ Executive Director
1996 - 2012	Association of Securities Companies (Thailand)	President
1996 - 2012	ASCO Training Institute (ATI)	President



1995 - 1996	Vachira Dhanadhun Securities Company Limited	Managing Director
1992 - 1995	The Stock Exchange of Thailand	Director of Research and Development
1991 - 1992	Dhana Siam Finance and Securities Co., Ltd.	Director of Research and Development
1983 - 1991	Fiscal Policy Office, Ministry of Finance	Senior Specialist Loan Policy Division and Fiscal & Tax Policy Division

Number of companies currently holding the position of a director

- Listed Company (s) : 2

Gunkul Engineering PCL	Director (Independent Director)/ Chairman of the Audit Committee/ Member of the Good Corporate Governance and Sustainable Development Committee
Kingsford Securities PCL	Director/ Chairman of the Audit Committee
- Non-Listed Company (s) : 1

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None

¹⁾ Appointed as Chairman of the Audit Committee and Member of the Corporate Governance Committee on 14th December 2020.

²⁾ Approved by the Board of Directors No. 11/2022 to change the name to “Good Corporate Governance and Sustainable Development Committee” on 10th November 2022.



Associate Professor Dr. Panarat Panmanee

- Director (Independent Director)
- Member of the Audit Committee

Date and month of appointment as Director and Member of the Audit Committee

- 20th April 2018 (4 year 8 months)/ 14th May 2018 (4 years 8 months)

Age 74 Years



Educational Qualifications

- Ph.D. in Management and Accounting, Keio University, Japan
- Master of Accountancy, Thammasat University
- Bachelor of Accountancy, Thammasat University

History of Training Programs

- Certificate, Directors Certification Program (DCP), Class 264/2018, Thai Institute of Director (IOD)
- Certificate, Top Executive Program in Commerce and Trade (TEPCoT), Class 10, Commerce Academy
- Professional Training in Accounting and Others 40 hours per year, in accordance with the requirements of the Federation of Accounting Professions for certified auditors
- Professional Training in Accounting 20 hours per year and Others 20 hours per year, in accordance with the requirements of the Federation of Accounting Professions for certified auditors

Training in 2022

- Seminar on “Anti-Corruption Guidelines”, The Office of Continuing Education, Sukhothai Thammathirat Open University
- Seminar on “Easy Listening: Accounting Knowledge that AC should not miss”, The Securities and Exchange Commission, Thailand
- Seminar on “Audit Committee Forum No. 49 Climate risks and opportunities: Financial impact and reporting”, KPMG
- Seminar on “Data Analytics for Accountants”, Thammasat Business School, Faculty of Commerce and Accountancy
- Training on Standard Auditing TSA 315 (Revised 2021), TSA 2002 (Revised) and TSRS 4400 (Revised), Federation of Accounting Professions Under The Royal Patronage of His Majesty The King

Working Experience during the Past 5 Years

GUNKUL's Group

2018 - Present	Gunkul Engineering PCL	Director (Independent Director)
2018 - Present	Gunkul Engineering PCL	Member of the Audit Committee

Other Companies/ Entities

2020 - Present	Federation of Accounting, Professions Royal Patronage	Advisor to the Technology Development and Professional Accounting Subcommittee
2018 - Present	PROEN Corp Public Company Limited	Director (Independent Director)/ Member of the Audit Committee
2021 - 2022	Faculty of Management Science,	Professor Silpakorn University
2017 - 2020	Federation of Accounting Professions Royal Patronage	Consultant in Accounting Professional Education and Accounting Technology
2016 - 2019	University of the Thai Chamber of Commerce	Dean Faculty of Accounting
2009 - 2015	Rajamangala University of Technology Thanyaburi	Specialist PhD program, Faculty of Business Administration
2002 - 2007	Thammasat University	Deputy Dean for Academic Affairs, Faculty of Commerce and Accountancy
1991 - 1999	KPMG Peat Marwick & Suthee Ltd.	Partner
1976 - 2009	Thammasat University	Professor, Faculty of Commerce and Accountancy

Number of companies currently holding the position of a director

- Listed Company (s) : 2

Gunkul Engineering PCL	Director (Independent Director)/ Member of the Audit Committee
PROEN Corp Public Company Limited	Independent Director/ Member of the Audit Committee
- Non-Listed Company (s) : None

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None



Gen. Tarnchaiyan Srisuwan

- Director (Independent Director)

Date and month of appointment as Director

- 18th April 2019 (3 years 8 months)

Age 64 Years



Educational Qualifications

- Master of Arts, Faculty of Political Science, Ramkhamhaeng University
- Army Staff School, United Kingdom
- Army Staff School, Thailand
- Chulachomklao Royal Military Academy
- Military School

History of Training Programs

- Certificate, Thai - Chinese Leadership Studies (TCL), Class 2, Huachiew Chalermprakiet University
- Certificate, Director Accreditation Program (DAP) Class 160/2019, Thai Institute of Directors : IOD
- Certificate, National Defense Joint with Private Sector, National Defence College of Thailand
- Certificate, Leader Program, Class 23, Capital Market Academy

Training in 2022

- Seminar on “Anti-Corruption Guidelines”, The Office of Continuing Education, Sukhothai Thammathirat Open University

Working Experience during the Past 5 Years

GUNKUL's Group

2019 - Present Gunkul Engineering PCL Director (Independent Director)

Other Companies/ Entities

2017	Royal Thai Armed Forces Headquarters	Supreme Commander
2016	Royal Thai Armed Forces Headquarters	Chief of Staff
2015	Royal Thai Armed Forces Headquarters	Deputy Chief of Staff
2014	Royal Thai Armed Forces Headquarters	Chief of Staff of the Supreme Commander
2012	Royal Thai Armed Forces Headquarters	Military commander

Number of companies currently holding the position of a director

- Listed Company (s) :1
Gunkul Engineering PCL Director (Independent Director)
- Non-Listed Company (s) : None

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None



Mr. Tarakorn Angpubate

- Director (Independent Director)
- Member of the Audit Committee ¹⁾
- Chairman of the Risk Management Committee

Date and month of appointment as Director, Member of the Audit Committee and Member of the Risk Management Committee

- 20th April 2018 (4 years 8 months)/ 14th December 2020 (2 years 1 month)/ 20th November 2019 (3 years 10 months)

Age 58 Years

Educational Qualifications

- MBA, Finance and Marketing, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Bachelor's Degree in Engineering (Computer), Chulalongkorn University

History of Training Programs

- Certificate, Public-Private Sector Management, Class 8 (Bor.8), Education HQ Royal Thai Police
- Business Revolution & Innovation Network (BRAIN) Class 4/2020, The Federation of Thai Industries
- Certificate, Leader Program Class 24/2017, Capital Market Academy, The Stock Exchange of Thailand
- Certificate, Senior Finance Executive Program Class 1/2014, Institute of Personnel Development in Finance and Accounting, the Comptroller General's Department
- Certificate, Senior Executive Administration Program, Class 5/2013, College of Justice Office of the Administrative Court
- Certificate, National Defense Course (NDC, 55/2012), The National Defence College of Thailand
- Certificate, Corporate Governance for Director and Senior Executive of State Enterprises and Public Organization (Class 9/2012), King Prajadhipok's Institute
- Certificate, Director Certification Program (DCP) 155/2012, Thai Institute of Directors : IOD
- Fast Track MD Program, Managing Director Training Urgent program at McDonald's Singapore Company and Hamburger University, Sydney, Australia

Training in 2022

- Seminar on "Anti-Corruption Guidelines", The Office of Continuing Education, Sukhothai Thammathirat Open University

Working Experience during the Past 5 Years

GUNKUL's Group

2020 - Present	Gunkul Engineering PCL	Member of the Audit Committee
2019 - Present	Gunkul Engineering PCL	Chairman of the Risk Management Committee
2018 - Present	Gunkul Engineering PCL	Director (Independent Director)
2018 - 2019	Gunkul Engineering PCL	Chairman of the Nomination and Remuneration Committee

Other Companies/ Entities

2017 - Present	988 Plus Company Limited	Chief Executive Officer (CEO)
2018 - 2020	Winvestment Co., Ltd.	Chief Operating Officer
2018 - 2020	Thai Agro Exchange Company Limited	Chairman of the Executive Committee
2016 - 2017	Food Capitals Public Company Limited	Chief Executive Officer (CEO)
2013 - 2014	Government Housing Bank	Director
2011 - 2014	Airports of Thailand Public Company Limited	Director
2012 - 2013	Islamic Bank of Thailand	President
2007 - 2010	McThai Co., Ltd.	Managing Director
2004 - 2006	Capital OK Co., Ltd.	Managing Director
2004 - 2006	Payment Solution Co., Ltd.	Managing Director
1996 - 1998	Intouch Public Company Limited	Assistant Vice President
1993 - 1996	TT&T Public Company Limited	Assistant Vice President Finance and Business Strategy
1989 - 1993	Citi Thailand	Credit Manager
1985 - 1986	The Siam Cement Public Company Limited	Systems Analyst

Number of companies currently holding the position of a director

- Listed Company (s) : 1
Gunkul Engineering PCL
Director (Independent Director)/ Member of the Audit Committee/ Chairman of the Risk Management Committee
- Non-Listed Company (s) : None

Share Holding Percentage as at 31st December 2022

- 900,039 shares, representing 0.0101 percent of the issued and paid-up capital

Relationship between Management

- None

¹⁾ Appointed as Member of the Audit Committee on 14th December 2020.





Ms. Sopacha Dhumrongpiyawut

- Chairman of the Executive Committee
- Director (Authorized Director)
- Member of the Risk Management Committee

Date and month of appointment as Director, Chairman of the Executive Committee and Member of the Risk Management Committee

- 10th August 2009 (13 Years 5 months)/ 10th August 2009 (13 Years 5 months)/ 10th August 2009 (13 Years 5 months)

Age 56 Years



Educational Qualifications

- Honorary Doctorate Degree of Liberal Arts Degree in 2019, Rajamangala University of Technology Phra Nakhon
- Honorary Doctorate Degree in Philosophy Business Administration Program in 2018, Western University
- Bachelor of Nurse in 1989, Srinakharinwirot University

History of Training Programs

- Certificate, Rule of Law for Democracy (RLD), Class 7, College of the Constitutional Court
- Certificate, the National Defence Course, Class 60, National Defence College
- Certificate, Advanced Security Management Program (ASMP), Class 6/2015, The Association National Defence College of Thailand under the Royal Patronage of His Majesty the King
- Certificate, Top Executive Program, Class 18/2014, Capital Market Academy
- Certificate, Role of Chairman Program (RCP), Class 21/2009, Thai Institute of Director (IOD)
- Certificate, Director Accreditation Program (DAP), Class 70/2008, Thai Institute of Director (IOD)
- Certificate, Director Certification Program (DCP), Class 111/2008, Thai Institute of Director (IOD)
- Anti-Corruption Training Course
- Effective Senior Manager Course
- Certificate, Secrets to Doubling Your Sales, Productivity & Profits
- Certificate, Managing Finance for Business Owners by Peter Ho

Training in 2022

- Seminar on “Anti-Corruption Guidelines”, The Office of Continuing Education, Sukhothai Thammathirat Open University
- Seminar on “Adjusting Mindset, Awakening Passion, Increasing Professional Sales and Marketing Capabilities”
- New Gen Thai - Chinese Leadership Studies (NTCL), Class 4, Thai - Chinese Leadership Institute - Huachiew Chalermprakiet University (Studying)
- Climate Change Leaders Forum 2021, Class 1, Thailand Greenhouse Gas Management Organization (Public Organization), Ministry of Natural Resources and Environment (Studying)
- Wellness & Healthcare Business Opportunity for Executives Program (WHB) Class 2, ASEAN Institute for Health Development, Mahidol University (Studying)

Working Experience during the Past 5 Years

GUNKUL's Group

2012 - Present	Gunkul Engineering PCL	Chairman of the Executive Committee/ Member of the Risk Management Committee
2009 - Present	Gunkul Engineering PCL	Director
2012 - 2020	Gunkul Engineering PCL	Chief Executive Officer
2022 - Present	GAP Supply Company Limited	Director
2022 - Present	G Wind Power Holding 3 Company Limited	Director
2022 - Present	G Wind Power Holding 5 Company Limited	Director
2021 - Present	G.K. Hemp Group Company Limited	Director
2021 - Present	G.K. Smart Farming Company Limited	Director
2021 - Present	G.K. Bio Extraction Company Limited	Director
2021 - Present	Gunkul Wind Power 1 Company Limited	Director
2021 - Present	Gunkul Wind Power 2 Company Limited	Director
2021 - Present	Gunkul Wind Power 3 Company Limited	Director
2021 - Present	Gunkul Wind Power 4 Company Limited	Director
2021 - Present	Gunkul Wind Power 5 Company Limited	Director
2021 - Present	Gunkul Wind Power 8 Company Limited	Director
2021 - Present	Gunkul Wind Power 9 Company Limited	Director
2021 - Present	G.K. Real Estate (2564) Company Limited	Director
2021 - Present	Future Power Construction Company Limited	Director
2021 - Present	K.N.P. Supply Company Limited	Director
2020 - Present	GPD & TEECL Joint Venture Company Limited	Director
2020 - 2022	Gunkul Engineering (Myanmar) Company Limited ¹⁾	Director



2018 - Present	Future Electrical Control Company Limited	Director
2018 - Present	Solar Energy Society Company Limited	Director
2017 - Present	Gunkul Solar Power Company Limited	Director
2015 - Present	Korat Wind Energy Company Limited	Director
2014 - Present	Gunkul Solar Community Company Limited	Director
2013 - Present	NK Power Sola Company Limited	Director
2013 - Present	Siam Gunkul Solar Energy Company Limited	Director
2013 - Present	WHA Gunkul Green Solar Roof 1 Company Limited	Director
2013 - Present	WHA Gunkul Green Solar Roof 3 Company Limited	Director
2013 - Present	WHA Gunkul Green Solar Roof 6 Company Limited	Director
2013 - Present	WHA Gunkul Green Solar Roof 17 Company Limited	Director
2013 - Present	Gunkul Power Development Company Limited	Director
2013 - Present	Gunkul Training Center Company Limited	Director
2013 - Present	Gunkul Solar Roof 1 Company Limited	Director
2013 - Present	Gunkul Solar Power 1 Company Limited	Director
2013 - Present	Gunkul Solar Power 2 Company Limited	Director
2010 - Present	G-Power Source Company Limited	Director
2008 - Present	G.K. Assembly Company Limited	Director
2000 - Present	G.K. Power Products Company Limited	Director
2019 - 2022	Gunkul Infinite Group Company Limited	Director
2019 - 2022	GKE and GPD Joint Venture Company Limited ¹⁾	Director

Remark : ¹⁾ Liquidated in 2022

Other Companies/ Entities

2020 - Present	Green Field Energy Company Limited	Director
2017 - Present	Gunkul Group Company Limited	Director
2017 - Present	Group of Great Miracle Asset (13 Companies)	Director
2015 - Present	Happy Green 2558 Company Limited	Director
2002 - Present	Gunkul Trading and Agency Company Limited	Director

Awards & Recognitions

Year	List
Year - 2021	Receive a Plaque of Honor : Sustainability Rising Star Award “2021 Asia Corporate Excellence & Sustainability Awards” (ACES) by MORS Group
Year - 2020	Received a Rating of “Excellent” (5 stars) in the Corporate Governance Report

Year	List
Year - 2019	Received the Outstanding Brand Award from Mr. Chuan Leekpai, President of the National Assembly and former Prime Minister at the “2019 Asia CEO Summit & Award Ceremony”
Year - 2018	Received a Plaque for an Outstanding Cooperative Education Establishment in 2018 Certificate for Sponsoring a Charity Music Festival for the Underprivileged, the White Heart Project, Unity Campaign against AIDS
Year - 2017	Certificate of the 1st Sponsorship of the Asia International Music Contest ASEAN Distributor Meeting Award, 2017 High Sales Achievement Received an Anti-Corruption Certification Received a Rating of “Excellent” (5 stars) in the Corporate Governance Report
Year - 2016	The 2 nd Asia Pacific Entrepreneurship Award in 2016 (APEA) , Outstanding Entrepreneurs Award Outstanding Award Category “Best CEO Award” at the SET Awards 2016 , The Stock Exchange of Thailand Rising Stars of Asia-Renewable Energy & Power Award
Year - 2015	Outstanding Establishment Award for Promotion of Skill Development from the Minister of Labor General Surasak Kanchanarat Outstanding Award Category “Company Performance Awards of the Year 2015” at the SET Awards 2015, The Stock Exchange of Thailand Outstanding Award Category “Best CEO Award” at the SET Awards 2015, The Stock Exchange of Thailand
Year - 2014	The Asia Pacific Entrepreneurship Award in 2014 (APEA) in the category of Outstanding Entrepreneurs Award Outstanding Award Category “Investor Relations Awards of the Year 2014” at the SET Awards 2014, the Stock Exchange of Thailand Plaque of Honor for those who have made contributions to the school’s education under the Dusit District Office



Year	List
Year - 2013	<p>CSR-DIW for Beginner Award in 2013 by the Department of Industrial Works, Ministry of Industry</p> <hr/> <p>Plaque of Honor from H.E. Privy Councilor Plakorn Suwannarat on the occasion of being honored to be Quality Persons of the Year 2014 in the field of “Exemplary Persons in the Energy and Utilities Business Sector”, organized by the Foundation of Science and Technology Council of Thailand (FSTT)</p> <hr/> <p>Outstanding Award Category “Investor Relations Awards of the Year 2013” at the SET Awards 2013, the Stock Exchange of Thailand</p> <hr/>

Number of companies currently holding the position of a director

- Listed Company (s) : 1
Gunkul Engineering PCL Director/ Chairman of the Executive Committee/
Member of the Risk Management Committee
- Non-Listed Company (s) : 53

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- Spouse of Dr. Gunkul Dhumrongpiyawut



Dr. Somboon Aueatchasai

- Chief Executive Officer (CEO)
- Director (Authorized Director)
- Executive Director
- Secretary to the Board of Directors

Date and month of appointment as Director, Executive Director and Secretary to the Boards of Directors

- 9th June 2010 (12 Years 7 months)/ 10th August 2009 (13 Years 5 months)/ 10th August 2009 (13 Years 5 months)

Age 53 Years



Educational Qualifications

- Doctor's Degree, Industrial Business Administration, King Mongkut's Institute of Technology Ladkrabang, 2015
- Master Degree in Managerial Accounting, Thammasat University, 1998
- Diploma in Auditing, Thammasat University, 1994
- Bachelor Degree in Accounting, Rajamangala University of Technology Phra Nakhon, 1992
- Internal Audit Certificate Class 1, Chulalongkorn University and the Institute of Internal Auditors of Thailand, 2000
- Certificate Program in International Tax Law, Class 1, Thai Bar Association, 2003

Other Qualifications

- Tax Auditor Registration No. 1, Department of Revenue, Ministry of Finance, 2017
- Accounting and Business Administration Specialist List of State Enterprise Directors 2019 (No. 2) No. 46

History of Training Programs

- Certificate, Advanced Audit Committee Program (AACP), Class 42/2021, Thai Institute of Director (IOD)
- Certificate, Advanced Intellectual Property Law (IP Bar 2021), Central Intellectual Property and International Trade Court
- Certificate, Senior Justice Executive Course, Class 24/2020, Judicial Training Institute
- Certificate, the National Defence Course, Class 63/2020, National Defence College, National Defence Studies Institute
- Certificate, Thailand Insurance Leadership Program, Class 8/2019, Office of Insurance Commission
- Certificate, Thai - Chinese Leadership Studies (TCL), Class 2/2019, Huachiew Chalermprakiet University
- Certificate, Intermediate Certificate Courses - Good Governance for Medical Executives Class 6/2018 (IGM6), the Medical Council together with King Prajadhipok's Institute
- Certificate, Top Executive Program in Commerce and Trade, Class 10/2017 (TEPCoT 10), University of the Thai Chamber of Commerce
- Certificate, Top Executive Program, Class 23/2016, Capital Market Academy, The Stock Exchange of Thailand

- Certificate, Advanced Security Management Program (ASMP), Class 7/2015, The Association National Defense College of Thailand under the Royal Patronage of His Majesty the King
- Certificate, Capital Market Leader Program, Class 1/2014, The Securities and Exchange Commission
- Certificate, Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives, Class 17/2013, King Prajadhipok's Institute
- Certificate, Public Economics Management for Executives, Class 10/2012, King Prajadhipok's Institute
- Certificate, Director Certification Program (DCP), Class 139/2011, Thai Institute of Director (IOD)
- Certificate, Director Accreditation Program (DAP), Class 84/2010, Thai Institute of Director (IOD)
- Certificate, Internal Auditing, Class 1, Chulalongkorn University and the Association of Internal Auditors of Thailand Year 2000
- Anti-Corruption Training Course

Training in 2022

- Seminar on "Anti-Corruption Guidelines", The Office of Continuing Education, Sukhothai Thammathirat Open University
- Advanced Security Management Program : Chief Prosecutor Training Program Class 13/2022, Office of The Attorney General
- Corporate Income Tax Training Course

Working Experience during the Past 5 Years

GUNKUL's Group

2021 - Present Gunkul Engineering PCL

Chief Executive Officer

2010 - Present Gunkul Engineering PCL

Director

2009 - Present Gunkul Engineering PCL

Executive Director/ Secretary to the Board of Directors

2012 - 2020 Gunkul Engineering PCL

Managing Director

2022 - Present G Wind Power Holding 3 Company Limited

Director

2022 - Present G Wind Power Holding 5 Company Limited

Director



2022 - Present	GAP Supply Company Limited	Director
2022 - Present	Pun New Energy Company Limited	Director
2021 - Present	Origin Gunkul Energy Company Limited	Director
2021 - Present	THCG Group Company Limited	Director
2021 - Present	Thai Stick Herb Company Limited	Director
2021 - Present	G.K. Smart Farming Company Limited	Director
2021 - Present	G.K. Hemp Group Company Limited	Director
2021 - Present	G.K. Bio Extraction Company Limited	Director
2021 - Present	Gunkul Wind Power 1 Company Limited	Director
2021 - Present	Gunkul Wind Power 2 Company Limited	Director
2021 - Present	Gunkul Wind Power 3 Company Limited	Director
2021 - Present	Gunkul Wind Power 4 Company Limited	Director
2021 - Present	Gunkul Wind Power 5 Company Limited	Director
2021 - Present	Gunkul Wind Power 6 Company Limited	Director
2021 - Present	Gunkul Wind Power 7 Company Limited	Director
2021 - Present	Gunkul Wind Power 8 Company Limited	Director
2021 - Present	Gunkul Wind Power 9 Company Limited	Director
2021 - Present	Gulf Gunkul Corporation Company Limited	Director
2021 - Present	G.K. Real Estate (2564) Company Limited	Director
2021 - Present	K.N.P. Supply Company Limited	Director
2020 - Present	Rangngern Solution Co., Ltd.	Director
2020 - Present	Gunkul Engineering (Myanmar) Company Limited ¹⁾	Director
2018 - Present	Future Electrical Control Company Limited	Director
2018 - Present	Solar Energy Society Company Limited	Director
2018 - Present	Kenyir Gunkul Solar Sdn Bhd.	Director
2015 - Present	Eco Thai Energy Company Limited	Director
2015 - Present	Infinite Alternative Energy Company Limited	Director
2015 - Present	Korat Wind Energy Company Limited	Director
2015 - Present	Gunkul Utility and Energy Company Limited	Director
2014 - Present	Gunkul Solar Community Company Limited	Director
2013 - Present	NK Power Sola Company Limited	Director
2013 - Present	Gunkul Power Development Company Limited	Director
2013 - Present	Gunkul Training Center Company Limited	Director
2013 - Present	Gunkul Solar Roof 1 Company Limited	Director
2012 - Present	Wind Energy Development Company Limited	Director
2016 - 2022	Gunkul Infinite Group Company Limited	Director

2015 - 2022	GO Bioenergy Company Limited ¹⁾	Director
2015 - 2022	Outgrow D Company Limited ¹⁾	Director
2011 - 2022	G-Power Source Company Limited	Director

Remarks: ¹⁾ Liquidated in 2022

Other Companies/ Entities

2022 - Present	The Central Intellectual Property and International Trade Court	Lay Judge
2021 - Present	Office of the National Village and Urban Community Fund	Qualified Director according to the order of the National Village and Urban Community Fund No. 13/2021
2021 - Present	PCL Holding Company Limited	Independent Director/ Audit Committee/ Chairman of the Nomination and Remuneration Committee/ Risk Management Committee/ Corporate Governance Committee
2021 - Present	Office of the Consumer Protection Board	Label Committee according to the order of the Committee Consumer Protection No.3/2021
2021 - Present	Office of the National Village and Urban Community Fund	Qualified Director/ Executive Subcommittee National Village and Urban Community Fund/ Subcommittee on Information and Digital Technology/ Subcommittee and Member of the Audit Committee according to the order of the National Village and Urban Community Fund No. 4/2021 and 5/2021
2020 - Present	Com7 Public Company Limited	Independent Director/ Member of the Audit Committee and Chairman of the Corporate Governance Committee
2017 - Present	Federation of Accounting Professions	Committee on Taxation Committee/ Working group for Transfer Pricing Documentation Guideline
2016 - Present	Rajamangala University of Technology Phra Nakhon	Qualified Director of the Faculty of Business Administration and a Special Instructor

Work Experience

2014 - 2021	Juvenile and Family Court, Prachuap Khiri Khan Province	Lay Judge
2017 - 2020	Tax Auditors Association of Thailand	President of the Tax Auditors Association of Thailand
2018 - 2020	Alumni Association of Rajamangala Institute of Technology Phra Nakhon	President of the RMUTT Alumni Association
2016 - 2018	National Legislative Assembly Committee	Advisor to the Sub Committee on Alternative Energy Education, (1(8)/2016)



Ms. Naruechon Dhumrongpiyawut

- Director (Authorized Director)
- Executive Director
- Chief Operating Officer, Investment Strategy and Energy Innovation Business

Date and month of appointment as Director and Executive Director

- 10th August 2009 (13 Years 5 months)/ 10th August 2009 (13 Years 5 months)

Age 39 Years



Educational Qualifications

- Master of Business Administration, Boston University U.S.A.
- Master of Management, Harvard University U.S.A.
- Bachelor of Engineering, Chulalongkorn University

History of Training Programs

- Certificate, The Rule of Law for Democracy Program, Class 9/2021, the Constitution Court of the Kingdom of Thailand
- Certificate, New Gen Thai - Chinese Leadership Studies Program (NTCL), Class 1/2019, Huachiew Chalermprakiet University
- Certificate, The Young Executive Program in Energy Literacy for a Sustainable Future Program (YTEA) Class 4, Thailand Energy Academy
- Certificate, Academy of Business Creativity Program (ABC), Class 5, Sripatum University
- Certificate, Executive Program in Industrial Business Development and Investment Program, Class 2, Institute of Business and Industrial Development
- Certificate, CMA-GMS International Program, Class 1, Capital Market Academy of the Stock Exchange of Thailand
- Certificate, Financial Advisor License Year 2013, Investment Banking Club of the Association of Thai Securities Companies
- Certificate, Director Accreditation Program (DAP), Class 70/2008, Thai Institute of Director (IOD)
- Anti-Corruption Training Course

Training in 2022

- Seminar on “Anti-Corruption Guidelines”, The Office of Continuing Education, Sukhothai Thammathirat Open University
- Seminar on “Climate Change”
- Seminar on “Techsauce Global Summit 2022”

Working Experience during the Past 5 Years

GUNKUL's Group

2021 - Present	Gunkul Engineering PCL	Chief Operating Officer, Investment Strategy and Energy Innovation Business
2009 - Present	Gunkul Engineering PCL	Director/ Executive Director
2016 - 2021	Gunkul Engineering PCL	Assistant Managing Director, Business Development and Strategic Planning
2022 - Present	Pun New Energy Company Limited	Director
2022 - Present	Gulf Gunkul Corporation Company Limited	Director
2022 - Present	Gunkul Solar Powergen Company Limited	Director
2022 - Present	Gunkul Wind Development 1 Company Limited	Director
2022 - Present	Gunkul Wind Development 3 Company Limited	Director
2022 - Present	Gunkul Wind Development 6 Company Limited	Director
2022 - Present	Gunkul Wind Development 8 Company Limited	Director
2022 - Present	Gunkul One Energy 2 Company Limited	Director
2022 - Present	Gunkul One Energy 5 Company Limited	Director
2022 - Present	Gunkul One Energy 9 Company Limited	Director
2022 - Present	Gunkul One Energy 11 Company Limited	Director
2022 - Present	JGS Synergy Power Company Limited	Director
2021 - Present	Gunkul Wind Power 6 Company Limited	Director
2021 - Present	Gunkul Wind Power 7 Company Limited	Director
2021 - Present	Origin Gunkul Energy Company Limited	Director



2020 - Present	Gunkul Godungfaifaa Platform Company Limited	Director
2020 - Present	Singapore An Yang, Singapore	Director
2020 - Present	Singapore Yun Yang, Singapore	Director
2020 - Present	INT Energy, Singapore	Director
2020 - Present	Gunkul Vietnam Joint Stock Company	Director
2020 - Present	Tri Viet Tay Ninh Joint Stock Company	Director
2020 - Present	Bach Khoa A Chau Hoa Binh Joint Stock Company	Director
2020 - Present	Bach Khoa A Chau Tay Ninh Joint Stock Company	Director
2020 - Present	Doan Son Thuy Investment Joint Stock Company	Director
2020 - Present	Tan Chau Nang Luong Joint Stock Company	Director
2019 - Present	Gunkul Infinite Group Company Limited	Director
2019 - Present	Future Energy Corporation Company Limited	Director
2018 - Present	Kenyir Gunkul Solar Sdn Bhd.	Director
2018 - Present	Solar Energy Society Company Limited	Director
2016 - Present	BMP Solar Company Limited	Director
2015 - Present	Eco Thai Energy Company Limited	Director
2015 - Present	Infinite Alternative Energy Company Limited	Director
2015 - Present	Rangngern Solution Company Limited	Director
2014 - Present	Gunkul Utility and Energy Company Limited	Director
2014 - Present	Gunkul Solar Community Company Limited	Director
2014 - Present	Greenovation Power Company Limited	Director
2012 - Present	Wind Energy Development Company Limited	Director
2013 - Present	Gunkul International Investment (Singapore) Pte. Ltd.	Director
2015 - 2022	GO Bioenergy Company Limited ¹⁾	Director
2015 - 2022	Outgrow D Company Limited ¹⁾	Director

Remarks: ¹⁾ Liquidated in 2022

Other Companies/ Entities

2022 - Present	DoHome Public Company Limited	Director/ Independent Director/ Member of Audit Committee/ Chairman of Risk Management Committee
2021 - Present	Ngernturbo Company Limited	Director/ Independent Director /Audit Committee/ Nomination and Remuneration Committee
2020 - Present	Green Field Energy Company Limited	Director
2017 - Present	Great Miracle Asset Group (13 Companies)	Director
2017 - Present	Gunkul Group Company Limited	Director
2015 - Present	Happy Green 2558 Company Limited	Director
2004 - Present	Noppakun Company Limited	Director

Number of companies currently holding the position of a director

- Listed Company (s) : 2

Gunkul Engineering PCL	Director/ Executive Director
DoHome Public Company Limited	Director/ Independent Director/ Member of Audit Committee/ Chairman of Risk Management Committee
- Non-Listed Company (s) : 56

Share Holding Percentage as at 31st December 2022

- 431,193 shares, representing 0.0049 percent of the issued and paid-up capital

Relationship between Management

- Daughter of Dr. Gunkul Dhumrongpiyawut



Mrs. Areewan Chaloemdan

- Director (Authorized Director)
- Executive Director
- Chief Operating Officer, High Voltage Equipment Business

Date and month of appointment as Director and Executive Director

- 10th August 2009 (13 Years 5 months)/ 10th August 2009 (13 Years 5 months)

Age 53 Years



Educational Qualifications

- Master of Industrial Business Administration, King Mongkut's University of Technology North Bangkok
- Bachelor of Accounting, Dhurakij Bundit University

History of Training Programs

- Fiscal Management Program, Advanced Government, Class 8/2021, Comptroller General's Department
- Certificate, Budget Management for Senior Executives, Class 6/2019, The Bureau of the Budget
- Certificate, Leadership Succession Program (LSP), Class 9, Institute of Research & Development for Public Enterprises
- Certificate, Public Administration Economy for Executives Course, Class 15, King Prajadhipok's Institute
- Certificate, Implementation of Sufficiency Economy, Ministry of Industry, TIS 99
- Certificate, Superior Executive Program for Advanced Management Gen. 1 Rajamangala University of Technology Phra Nakhon
- Certificate, Pioneering Leadership Training Program, Canaan Farmers School, Korea
- Certificate, Director Accreditation Program (DAP), Class 70/2008, Thai Institute of Director (IOD)
- Effective Senior Manager Course
- Anti-Corruption Training Course

Training in 2022

- Seminar on "Anti-Corruption Guidelines", The Office of Continuing Education, Sukhothai Thammathirat Open University
- Public Economics Management for Executives Program (PEM) (Refresher Course), King Prajadhipok's Institute
- Senior Executives in Business and Industrial Development Class 7, Institute of Business and Industrial Development (IBID)

Working Experience during the Past 5 Years

GUNKUL's Group

2021 - Present	Gunkul Engineering PCL	Chief Operating Officer, High Voltage Equipment Business
2009 - Present	Gunkul Engineering PCL	Director/ Executive Director
2019 - 2021	Gunkul Engineering PCL	Assistant Managing Director, Production and Distribution of Electrical Equipment
2010 - 2019	Gunkul Engineering PCL	Senior Vice President, Factory
2022 - Present	GAP Supply Company Limited	Director
2021 - Present	Gunkul Wind Power 6 Company Limited	Director
2021 - Present	Gunkul Wind Power 7 Company Limited	Director
2021 - Present	K.N.P. Supply Company Limited	Director
2009 - Present	G.K. Power Products Company Limited	Director
2009 - Present	G.K. Assembly Company Limited	Director

Number of companies currently holding the position of a director

- Listed Company (s) : 1
Gunkul Engineering PCL Director/ Executive Director
- Non-Listed Company (s) : 6

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None



Mr. Chaloepon Sricharoen

- Director (Authorized Director)
- Executive Director
- Vice President, Sales and Marketing

Date and month of appointment as Director and Executive Director

- 10th August 2009 (13 Years 5 months)/ 10th August 2009 (13 Years 5 months)

Age 53 Years



Educational Qualifications

- Bachelor of Arts, Ramkhamhaeng University

History of Training Programs

- Certificate, Rule of Law for Democracy, Class 8, College of the Constitutional Court
- Certificate, Good Governance for Medical Executives (GME), Class 9, the Medical Council together with King Prajadhipok's Institute
- Basic legal and contract courses for using in work and daily life
- Certificate, Advanced Security Management Program (ASMP), Class 10/2019, The Association National Defence College
- Certificate, Leadership Succession Program (LPS), Class 8, The Institute of Research and Development for Public Enterprises (IRDP)
- Certificate, Advanced Certificate Course in Public Administration and Law for Executives, Class 15 King Prajadhipok's Institute
- Cautions for Directors to Prevent Legal Risks, Responsibility of Directors according to Civil and Criminal Law, SET and SEC
- Certificate, Public Economics Management for Executives, Class 12/2014, King Prajadhipok's Institute
- Certificate, Director Accreditation Program (DAP), Class 70/2008, Thai Institute of Director (IOD)
- Effective Senior Manager
- Anti-Corruption Training Course
- Certificate, Managing Finance for Business Owners by Peter Ho
- Seminar on "The Royal Decree on Interest Rate Modification for the 1st time in 95 years"
- Seminar on "Know it before you make a mistake, the Computer Crime Act in the COVID-19 Era and IT Policy Update"
- Seminar on "Guidelines and Considerations on Common Problems in Construction Contractors"
- Seminar on "People adapt, World change, escape from disruptive with innovative organizations"

Training in 2022

- Seminar on "Anti-Corruption Guidelines", The Office of Continuing Education, Sukhothai Thammathirat Open University

- Seminar on "One page summary"
- Seminar on "Canva Miracle, Creating professional designs by Canva"
- Seminar on "Adjusting Mindset, Awakening Passion, Increasing Professional Sales and Marketing Capabilities"
- Seminar on "Professional Management for Negotiation and Customers Complaint"

Working Experience during the Past 5 Years

GUNKUL's Group

2014 - Present	Gunkul Engineering PCL	Vice President, Sales and Marketing
2009 - Present	Gunkul Engineering PCL	Director/ Executive Director
2022 - Present	GAP Supply Company Limited	Director
2021 - Present	G.K. Assembly Company Limited	Director
2021 - Present	G.K. Power Products Company Limited	Director
2010 - Present	K.N.P. Supply Company Limited	Director

Number of companies currently holding the position of a director

- Listed Company (s) : 1
Gunkul Engineering PCL Director/ Executive Director
- Non-Listed Company (s) : 4

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- Brother of Ms. Sopacha Dhumrongpiyawut



Mr. Somchai Trairattanapirom

- Chairman of the Good Corporate Governance and Sustainable Development Committee (Independent Director)^{1) 2)}
- Member of the Risk Management Committee (Independent Director)

Date and month of appointment as Member of the Good Corporate Governance and Sustainable Development Committee and Member of the Risk Management Committee

- 25th February 2013 (9 Years 10 months)/ 22th June 2015 (7 Years 6 months)

Age 62 Years



Educational Qualifications

- Doctor's Degree, Faculty of Monetary Economics, Kobe University, Japan (Governing Japanese Scholarship)
- Master Degree, Faculty of Economics (International Finance and Banking), Thammasart University
- Bachelor Degree, Faculty of Economics (Finance, Banking, Marketing), Thammasart University

History of Training Programs

- Certificate, Digital Transformation Course, Institute of Research and Development for Public Enterprises (IRDP)
- Certificate, Advanced Certificate Course in Public Administration and Public Law (PorRorMor), Class 4
- Certificate, the Program on Management of Technology, the Association for Overseas Technical Scholarship (Scholarship AOTS), Japan
- Certificate, Director Certification Program (DCP), Class 118/2552, Thai Institute of Director (IOD)
- Certificate, Corporate Governance Public Sufficiency Management for Executive, Advanced Course, Class 1, the Office of the Public Sector Development Commission
- Certificate, Digital Marketing Course, Institute of Research and Development for Public Enterprises (IRDP)

Training in 2022

- Seminar on "Anti-Corruption Guidelines", The Office of Continuing Education, Sukhothai Thammathirat Open University

Working Experience during the Past 5 Years

GUNKUL's Group

2020 - Present	Gunkul Engineering PCL	Chairman of the Good Corporate Governance and Sustainable Development Committee ²⁾
2015 - Present	Gunkul Engineering PCL	Member of the Risk Management Committee
2013 - 2020	Gunkul Engineering PCL	Member of the Good Corporate Governance Committee

Other Companies/ Entities

2021 - Present	Institute of Research and Development for Public Enterprises (IRDP)	Expert in Evaluation Course Director, CEO-Leadership Succession Program (LSP)
2012 - Present	Thai Health Promotion Foundation	Chairman of Sub-Committee, Appraisal of Good Corporate Governance
2013 - 2020	Institute of Research and Development for Public Enterprises (IRDP)	Deputy Managing Director
2012 - 2013	Enterprises State Enterprise Policy Office Ministry of Finance	Advisor, Performance Controlling along with Appraisal System in quality of State
2011 - 2012	International Institute for Trade and Development (Public Organization)	Advisor, Competency Development in KPI and Appraisal Determination
2011 - 2012	National Innovation Agency (Public Organization)	Advisor in Risk Management and Internal Audit
2011 - 2012	Public Debt Management Office Ministry of Finance	Advisor, Follow-up and Project Appraisal - Development Policy Loan 2012, Area 4 North-East of Thailand



2010 - 2012	The Institute for the Promotion of Teaching Science and Technology	Advisory, Risk Management and Internal Audit
2010 - 2012	Technology Development Agency (Public Organization)	Advisory, Follow-up and Performance Appraisal of GISTDA Informatics and Space
2010 - 2011	Office of The National Broadcasting and Telecommunications Commission (NBTC)	Team Leader, Performance Appraisal of the Nation Telecommunications Commission, 2012 - 2011
2010 - 2011	Petroleum Institute of Thailand (PTIP) Energy Policy and Planning office, Ministry of Energy	Advisory, Cost Analysis and NGV Price Determination
2009	Agricultural Research Development Agency (ARDA), Ministry of Public Health	Advisor, Competency Appraisal of Personal of Development Individual
2009 - 2012	Office of the Attorney General	Advisor, Project of Certificate Issuing and Annual Performance Appraisal for Governor
2008 - 2012	Comptroller General's Department (CGD)	Advisory, Performance Appraisal in Working Capital Budget
2008 - 2012	Ministry of Energy	Advisory, Performance Appraisal of Ministry of Energy
2008 - 2012	Tris Corporation Company Limited (TRIS)	Deputy Managing Director
2007 - 2012	The Stock Exchange of Thailand	Advisory, SET Award Project
2007 - 2011	Office of the National Anti-Corruption Commission	Subcommittee on Negotiating Agreements and Evaluation of the Annual Official Practice Certification
2007 - 2011	Office of the National Anti-Corruption Commission	Advisor to organize the Capacity Building Seminar
2007 - 2011	Office of the National Anti-Corruption Commission	Project Advisor to improve the assessment of efficiency and effectiveness
2003 - 2012	Office of the Public Sector Development Commission	Chief of the consulting team for the preparation of government official/ provincial/ public organization certification
2000 - 2012	The Institute for the Promotion of Teaching Science and Technology	Team Leader, Performance Evaluation Advisor
2000 - 2005	SEC and SET	Advisor to the Corporate Governance Rating Program
1999 - 2008	Tris Corporation Company Limited (TRIS)	Senior Vice President

1998 - 2020	State Enterprise Policy Office Ministry of Finance	Team Leader/Specialist/Advisor Performance Appraisal of State Enterprises
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Number of companies currently holding the position of a director

- Listed Company (s) : None
- Non-Listed Company (s) : None

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None

Remarks : ¹⁾ Appointed as Chairman of the Good Corporate Governance Committee on 14th December 2020.

²⁾ Approved by the Board of Directors No. 11/2022 to change the name to "Good Corporate Governance and Sustainable Development Committee" on 10th November 2022.



Pol.Maj.Gen. Visit Sukarasep

- Chairman of the Nomination and Remuneration Committee (Independent Director)

Date and month of appointment as Member of the Nomination and Remuneration Committee

- 20th February 2019 (3 years 10 months)

Age 67 Years



Educational Qualifications

- Bachelor Degree in Public Administration, Royal Police Cadet Academy

History of Training Programs

- Certificate, Management for High Rank Police Course, Class 28
- Certificate, Superintendent Course, Class 31
- Certificate, Nomination Committee Best Practice Guideline
- Certificate, Director Accreditation Program (DAP), Class 78/2009, Thai Institute of Director (IOD)

Training in 2022

- Seminar on “Anti-Corruption Guidelines”, The Office of Continuing Education, Sukhothai Thammathirat Open University

Working Experience during the Past 5 Years

GUNKUL's Group

2019 - Present	Gunkul Engineering PCL	Chairman of the Nomination and Remuneration Committee
2012 - 2018	Gunkul Engineering PCL	Chairman of the Nomination and Remuneration Committee
2009 - 2018	Gunkul Engineering PCL	Member of the Audit Committee
2009 - 2018	Gunkul Engineering PCL	Director (Independent Director)

Other Companies/ Entities

2014 - 2015	Chumphon Provincial Police Station	Commander
2013 - 2014	Ranong Provincial Police Station	Commander
2012 - 2013	Royal Thai Police	Commander Administrative and Civil Affair Division
2006 - 2012	Royal Thai Police	Deputy Commander Administrative and Civil Affair Division
2005 - 2006	Royal Thai Police	Superintendent Administrative and Civil Affair Division
2000 - 2005	Royal Thai Police	Superintendent (Disciplinary Development) Disciplinary Division
1998 - 2000	Royal Thai Police	Deputy Superintendent (Penalty Solicitor) Disciplinary Division
1992 - 1994	Nongyasai District Provincial Police Station, Suphanburi Province	Chief of Police

Number of companies currently holding the position of a director

- Listed Company (s) : None
- Non-Listed Company (s) : None

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None



Mr. Decha Chooligorn

- Member of the Nomination and Remuneration Committee (Independent Director)

Date and month of appointment as Member of the Nomination and Remuneration Committee

- 9th November 2012 (10 Years 2 months)

Age 60 Years



Educational Qualifications

- MBA Marketing and Finance, Case Western Reserve University, USA
- Bachelor Degree of Economics, Thammasat University

History of Training Programs

- Certificate, Director Certification Program (DCP), Class 26/2003, Thai Institute of Director (IOD)
- Certificate, Secrets to Doubling Your Sales, Productivity & Profits Course
- Certificate, Key to Success in Organization Redesign Course
- Certificate, Effective Managers Program
- Certificate, Project Finance Course
- Certificate, Nomination Committee Best Practice Guideline Course

Training in 2022

- Seminar on “The Guidelines for Prevention of the Corruption”, The Office of Continuing Education, Sukhothai Thammathirat Open University

Working Experience during the Past 5 Years

GUNKUL's Group

2012 - Present Gunkul Engineering PCL

Member of the Nomination and Remuneration Committee

2022 - Present Gunkul Power Development Co., Ltd.

Member of the Nomination and Remuneration Committee

Other Companies/ Entities

2005 - Present	Integrated Management Consultant Co., Ltd.	Director/ Managing Director
2012 - 2022	Diamond Security Guard Co., Ltd.	Director
2003 - 2005	Thai Rung Union Car PCL	Assistant Managing Director
2001 - 2003	Advance Power Supply PCL	Deputy Managing Director

Number of companies currently holding the position of a director

- Listed Company (s) : None
- Non-Listed Company (s) : 1

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None



Mr. Hathai Uthai

- Member of the Nomination and Remuneration Committee (Independent Director)

Date and month of appointment as Member of the Nomination and Remuneration Committee

- 12th November 2015 (7 Years 2 months)

Age 68 Years



Educational Qualifications

- Management of Public and Private Program, National Institute of Development Administration
- Bachelor of Engineering (Mechanical), Khonkaen University
- Bachelor of Laws, Thammasat University

History of Training Programs

- Certificate, Nomination Committee Best Practice Guideline Course

Training in 2022

- Seminar on “The Guidelines for Prevention of the Corruption”, The Office of Continuing Education, Sukhothai Thammathirat Open University

Working Experience during the Past 5 Years

GUNKUL's Group

2015 - Present	Gunkul Engineering PCL	Member of the Nomination and Remuneration Committee
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Other Companies/ Entities

2021 - Present	Thai Industrial Standards Committee (TISC)	Advisory Committee
2021 - Present	Thailand Automotive Institute	Chairman
2021 - Present	Foundation for Industrial Development	Director
2021 - Present	Institute of Small and Medium Enterprises Development (ISMED)	Director

2020 - Present	The Foundation for Thailand Productivity Institute	Director
2019 - Present	Ministry of Industry	Advisor to the Permanent Secretary, Ministry of Industry
2019 - Present	Ministry of Industry	Audit and Evaluation Committee
2014 - 2015	Thai Industrial Standards Institute	Secretary-General
2013 - 2014	Ministry of Industry	Inspector-General
2012 - 2013	Ministry of Industry	Deputy Director of the Office of Industrial Economics
2008 - 2012	Ministry of Industry	Deputy Secretary General, Thai Industrial Standards Institute

Number of companies currently holding the position of a director

- Listed Company (s) : None
- Non-Listed Company (s) : None

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None



Mr. Pongtep Thithapand

- Member of the Good Corporate Governance and Sustainable Development Committee (Independent Director) ¹⁾

Date and month of appointment as Member of the Good Corporate Governance and Sustainable Development Committee

- 25th February 2013 (9 Years 10 months)

Age 64 Years



Educational Qualifications

- Master Degree of Public Administration, National Institute of Development Administration
- Bachelor Degree of Laws, Ramkhamhaeng University

History of Training Programs

- Certificate, Capital Market Academy Leadership Program 2018, Capital Market Academy
- Certificate, Senior Justice Executive Course, Class 21/2017
- Certificate, Senior Budget Administrator, Class 3/2016, Bureau of the Budget
- Certificate, "LEADERSHIP", RIPA International, London, England, 2012
- Certificate, Degree in N.D.C., Class 54/2011, National Defense College
- Certificate, Advanced Certificate Course in Public Administration and Public Law for Executives, Class 8/2009, King Prajadhipok's Institute
- Directors Certification Program (DCP), Class 125/2009, Thai Institute of Director (IOD)
- Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives, Class 6/2008, King Prajadhipok's Institute
- MOF Executive Program, Ministry of Finance, 2005

Training in 2022

- Seminar on "The Guidelines for Prevention of the Corruption", The Office of Continuing Education, Sukhothai Thammathirat Open University

Working Experience during the Past 5 Years

GUNKUL's Group

2013 - Present Gunkul Engineering PCL

Member of the Good Corporate Governance and Sustainable Development Committee ¹⁾

Other Companies/ Entities

2022 - Present	Sahacogen (Chonburi) PCL	Director (independent Director)/ Member of the Audit Committee
2015 - Present	DOD Biotech PCL	Director (Independent Director)/ Member of the Audit Committee
2019 - 2020	PTT Natural Gas Distribution Co., Ltd.	Director
2014 - 2017	Total Industrial Services Co., Ltd.	Director
2010 - 2015	PTT LNG Co., Ltd. (PTT Group)	Director

Number of companies currently holding the position of a director

- Listed Company (s) : 2

DOD Biotech PCL	Director/ Member of the Audit Committee
Sahacogen (Chonburi) PCL	Director/ Member of the Audit Committee
- Non-Listed Company (s) :None

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None

Remarks: ¹⁾ Approved by the Board of Directors No. 11/2022 to change the name to "Good Corporate Governance and Sustainable Development Committee" on 10th November 2022.



Dr. Phongsakorn Damnoen

- Chief Operating Officer, Energy and Cannabis Business

Age 45 Years



Educational Qualifications

- Ph.D. in Renewable Energy, Naresuan University, 2019
- Master Degree in Electrical Engineering, Hannover University, Germany, 2005
- Bachelor Degree (Eng.) in Telecommunication, Rajamangala University of Technology, 2002

History of Training Programs

- Certificate, Environmental Governance for Executive Officer Program, Class 8/2021, Department of Environmental Quality Promotion, Ministry of Natural Resources and Environment in collaboration with Chulalongkorn University
- Certificate, Thai - Chinese Leadership Studies (TCL), Class 3/2019, Huachiew Chalermprakiet University
- Certificate, Top Executive Program in Commerce and Trade (TEPCoT), Class 12, University of the Thai Chamber of Commerce
- Certificate, Ultra Wealth (UW), Class 4, The Ultra Wealth Group Company Limited
- Certificate, Senior Executives in Industrial Business Development and Investment, Class 4/2017, Institute of Business and Industrial Development
- Certificate, Leadership Succession Program (LSP), Class 6/2016, Institute of Research and Development for Public Enterprises (IRDP)
- Certificate, Director Certification Program (DCP), Class 149/2011, Thai Institute of Director (IOD)
- Anti-Corruption Training Course

Training in 2022

- Seminar on “The Guidelines for Prevention of the Corruption”, The Office of Continuing Education, Sukhothai Thammathirat Open University

Working Experience during the Past 5 Years

GUNKUL's Group

2021 - Present	Gunkul Engineering PCL	Chief Operating Officer, Energy and Cannabis Business
2016 - 2020	Gunkul Engineering PCL	Deputy Managing Director, Business Development & Strategic Planning
2022 - Present	Gulf Gunkul Corporation Co., Ltd.	Director
2022 - Present	JGS Synergy Power Co., Ltd.	Director
2022 - Present	G Wind Power Holding 3 Co., Ltd.	Director
2022 - Present	G Wind Power Holding 5 Co., Ltd.	Director
2021 - Present	Origin Gunkul Energy Co., Ltd.	Director
2021 - Present	THCG Group Co., Ltd.	Director
2021 - Present	Thai Stick Herb Co., Ltd.	Director
2021 - Present	G.K. Smart Farming Co., Ltd.	Director
2021 - Present	G.K. Hemp Group Co., Ltd.	Director
2021 - Present	G.K. Bio Extraction Co., Ltd.	Director
2021 - Present	Gunkul Wind Power 1 Co., Ltd.	Director
2021 - Present	Gunkul Wind Power 2 Co., Ltd.	Director
2021 - Present	Gunkul Wind Power 3 Co., Ltd.	Director
2021 - Present	Gunkul Wind Power 4 Co., Ltd.	Director
2021 - Present	Gunkul Wind Power 5 Co., Ltd.	Director



2021 - Present	Gunkul Wind Power 6 Co., Ltd.	Director
2021 - Present	Gunkul Wind Power 7 Co., Ltd.	Director
2021 - Present	Gunkul Wind Power 8 Co., Ltd.	Director
2021 - Present	Gunkul Wind Power 9 Co., Ltd.	Director
2021 - Present	Gunkul Godungfaifaa Platform Co., Ltd.	Director
2020 - Present	Gunkul Vietnam Joint Stock Company	Director
2020 - Present	Tri Viet Tay Ninh Joint Stock Company	Director
2020 - Present	Bach Khoa A Chau Hoa Binh Joint Stock Company	Director
2020 - Present	Bach Khoa A Chau Tay Ninh Joint Stock Company	Director
2020 - Present	Doan Son Thuy Investment Joint Stock Company	Director
2020 - Present	Tan Chau Nang Luong Joint Stock Company	Director
2020 - Present	Gunkul Engineering (Myanmar) Co., Ltd. ¹⁾	Director
2020 - Present	Gunkul Solar Power 2 Co., Ltd.	Director
2020 - Present	Infinite Alternative Energy Co., Ltd.	Director
2018 - Present	Solar Energy Society Co., Ltd.	Director
2018 - Present	Kenyir Gunkul Solar Sdn Bhd.	Director
2017 - Present	BMP Solar Co., Ltd.	Director
2017 - Present	Gunkul Solar Power Co., Ltd.	Director
2015 - Present	Gunkul Infinite Group Co., Ltd.	Director
2015 - Present	ECO Thai Energy Co., Ltd.	Director
2015 - Present	Rangngern Solution Co., Ltd.	Director
2015 - Present	Gunkul Solar Power 1 Co., Ltd.	Director
2015 - Present	Bright Green Power Co., Ltd.	Director
2015 - Present	Korat Wind Energy Co., Ltd.	Director
2014 - Present	Greenovation Power Co., Ltd.	Director
2013 - Present	Siam Gunkul Solar Energy Co., Ltd.	Director
2013 - Present	NK Power Sola Co., Ltd.	Director
2012 - Present	Wind Energy Development Co., Ltd.	Director
2009 - Present	Gunkul Chubu Powergen Co., Ltd.	Director
2019 - 2022	GKE & GPD Joint Venture Co., Ltd.	Director

2015 - 2022	GO Bio Energy Co., Ltd.	Director
2015 - 2022	Outgrow D Co., Ltd.	Director

Remark: ¹⁾ Liquidated in 2022

Number of companies currently holding the position of a director

- Listed Company (s) : None
- Non-Listed Company (s) : 44

Share Holding Percentage as at 31st December 2022

- 38,174,073 shares, representing 0.4298 percent of the issued and paid-up capital
- 336,000 shares, representing 0.0038 percent of the issued and paid-up capital (spouse)

Relationship between Management

- None



Mr. Chaisiri Wattanacharnnarong

- Chief Operating Officer, Engineering and Turnkey Business

Age 47 Years



Educational Qualifications

- Master Degree of Engineer, Construction Engineering and Management King Mongkut's University of Technology Thonburi
- Bachelor Degree of Engineer, Civil Engineering, Srinakharinwirot University
- Civil Engineering Professional License, Associate Engineering

History of Training Programs

- Seminar on "People adapt, World change, escape from disruptive with innovative organizations", 2021
- Certificate, Director Accreditation Program, Class 159/2019, Thai Institute of Directors (IOD)
- Certificate, Leadership Succession Program (LSP), Class 10, Institute of Research and Development for Public Enterprises
- Certificate, Public Administration and Law for Executives Program, Class 19, King Prajadhipok's Institute
- Certificate, the Metropolitan Development Training Course for Top Executive, Class 8/2020, Institute of Metropolitan Development, Navamindradhiraj University
- Certificate, Public Economics Management for Executives, Class 19/2020, King Prajadhipok's Institute

Training in 2022

- Seminar on "The Guidelines for Prevention of the Corruption", The Office of Continuing Education, Sukhothai Thammathirat Open University
- Certificate, Financial and Fiscal Management Program for Senior Executive, Class 9, The Comptroller General's Department
- Seminar on "KPIs and Competency Assessment Criteria"
- Seminar on "Vision, Mission and SWOT Analysis for Organization"

Working Experience during the Past 5 Years

GUNKUL's Group

2021 - Present	Gunkul Engineering PCL	Chief Operating Officer, Engineering and Turnkey Business
2018 - 2021	Gunkul Engineering PCL	Assistant Managing Director, Project Construction Management
2017 - 2018	Gunkul Engineering PCL	Senior Vice President, Project Construction Management
2021 - Present	Gunkul Power Development Co., Ltd.	Director
2021 - Present	Future Power Construction Co., Ltd.	Director
2020 - Present	GPD & TEECL Joint Venture Co., Ltd.	Director
2013 - Present	Future Electrical Control Co., Ltd.	Director

Number of companies currently holding the position of a director

- Listed Company (s) : None
- Non-Listed Company (s) : 4

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None



Mr. Thitipong Techaratanayuenyong

- Member of the Risk Management Committee
- Secretary to the Risk Management Committee
- Chief Financial Officer (CFO)
- Head of Investor Relations

Date and month of appointment as Member and Secretary to the Risk Management Committee

- 12th November 2014 (8 Years 2 months)/ 12th November 2014 (8 Years 2 months)

Age 47 Years



Educational Qualifications

- Master Degree of Business Administration (MBA), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Bachelor Degree of Economics (Major in International Economics), Chulalongkorn University
- Bachelor Degree of Engineering (Major in Civil & Environmental Engineering), Chulalongkorn University

History of Training Programs

- TLCA CFO Professional Development Program (TLCA CFO CPD), Thai Listed Companies Association, 2021
- Seminar on “Agricultural Accounting Standards” by KPMG Phoomchai, 2021
- Seminar on “People adapt, World change, escape from disruptive with innovative organizations” by Prof.Dr. Suchatvee Suwansawat, 2021
- Seminar on “CFO as a Business Partner to CEO”, Federation of Accounting Professions under The Royal Patronage of His Majesty the King, 2021
- Certificate, Public Economic Management for High Executives Program” by King Prajadhipok’s Institute, Class 18
- Certificate, Strategic CFO in Capital Markets Program, Class 1, by Stock Exchange of Thailand
- Business Leader Program by Dr. Noel M. Tichy from University of Michigan (Ross School of Business)
- International Financial Reporting Standards (IFRS) No.9
- International Financial Reporting Standards (IFRS) No.15-16
- Good & Smart Team Management Program
- Bond Regulatory Updates 2018-19 by ThaiBMA
- Supervision Psychology and Job Coaching Course
- Global Business Leader Development Course
- Building Relationships and Team Leading Course
- Sustainable Teamwork Curriculum Course
- Anti-Corruption Training Course

Training in 2022

- Seminar on “The Guidelines for Prevention of the Corruption”, The Office of Continuing Education, Sukhothai Thammathirat Open University
- Certificate, Director Certification Program, Class 315/2022, Thai Institute of Directors (IOD)
- Certificate, CFO’s Refresher Course, 2022
- Certificate, Leadership Succession Program (LSP), Class 13/2022, Institute of Research and Development for Public Enterprises (IRDPP)

Working Experience during the Past 5 Years

GUNKUL’s Group

2021 - Present	Gunkul Engineering PCL	Chief Financial Officer (CFO)/ Head of Investor Relations
2014 - Present	Gunkul Engineering PCL	Member of the Risk Management Committee/ Secretary to the Risk Management Committee
2020 - 2021	Gunkul Engineering PCL	Senior Vice President, Finance & Corporate Strategic Management
2014 - 2019	Gunkul Engineering PCL	Senior Vice President, Financial Management and Controlling Foreign Affairs/ Chief Financial Officer
2022 - Present	G-Power Source Co., Ltd.	Director
2022 - Present	Gunkul Vietnam Joint Stock Company	Director
2022 - Present	Tri Viet Tay Ninh Joint Stock Company	Director



2022 - Present	Bach Khoa A Chau Hoa Binh Joint Stock Company	Director
2022 - Present	Bach Khoa A Chau Tay Ninh Joint Stock Company	Director
2022 - Present	Doan Son Thuy Investment Joint Stock Company	Director
2022 - Present	Tan Chau Nang Luong Joint Stock Company	Director
2021 - Present	Gunkul Chubu Powergen Co., Ltd.	Director

Number of companies currently holding the position of a director

- Listed Company (s) : None
- Non-Listed Company (s) : 8

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None



Mr. Theerapab Punyasakhon

- Chief Operating Officer, Business Support

Age 49 Years



Educational Qualifications

- LLM, 1999, University of Illinois at Urbana-Champaign
- LLB, 1995, Thammasat University
- Member of the Thai Bar Association
- Lawyer's license, Lawyers Council of Thailand

History of Training Programs

- Certificate, Leadership Succession Program (LSP), Class 12
- Seminar on "Construction Contract Management"
- Survey Seminar on "Secondary Law Draft Project under the Personal Data Protection Act B.E. 2562"
- Seminar on "People adapt, World change, escape from disruptive with innovative organizations"
- Seminar on "A new dimension in securities analysis by focusing on sustainability through One-report"

Training in 2022

- Seminar on "The Guidelines for Prevention of the Corruption", The Office of Continuing Education, Sukhothai Thammathirat Open University
- Seminar on "Climate Change"
- Seminar on "National Energy Plan under Energy Transition"

Working Experience during the Past 5 Years

GUNKUL's Group

2021 - Present	Gunkul Engineering PCL	Chief Operating Officer, Business Support
2019 - 2021	Gunkul Engineering PCL	Assistant Managing Director, Office of Managing Director
2022 - Present	Gunkul Solar Powergen Co., Ltd.	Director

2022 - Present	Gunkul Wind Development 1 Co., Ltd.	Director
2022 - Present	Gunkul Wind Development 3 Co., Ltd.	Director
2022 - Present	Gunkul Wind Development 6 Co., Ltd.	Director
2022 - Present	Gunkul Wind Development 8 Co., Ltd.	Director
2022 - Present	Gunkul One Energy 2 Co., Ltd.	Director
2022 - Present	Gunkul One Energy 5 Co., Ltd.	Director
2022 - Present	Gunkul One Energy 9 Co., Ltd.	Director
2022 - Present	Gunkul One Energy 11 Co., Ltd.	Director
2021 - Present	G.K. Real Estate (2564) Co., Ltd.	Director
2021 - Present	Kenyir Gunkul Solar Sdn Bhd.	Director
2021 - 2022	Gunkul Renewable Energy Co., Ltd.	Director
2019 - 2022	Gunkul Infinite Group Co., Ltd.	Director

Number of companies currently holding the position of a director

- Listed Company (s) : None
- Non-Listed Company (s) : 11

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None



Ms. Suttirat Tangnorakul

- Senior Vice President, Accounting
- Accounting Supervisor

Age 49 Years



Educational Qualifications

- Master Degree of Business Administration, Major in Accounting, Ramkhamhaeng University
- Bachelor Degree of Business Administration, Major in Accounting, Ramkhamhaeng University

History of Training Programs

- Certificate, CFO's Orientation Course for New IPOs, Class 5/2021
- Seminar on "Guaranteed" an important thing to know, 2021
- Seminar on "Prevent risks with construction project insurance and property insurance", 2021
- Seminar on "C.A.R. & I.A.R : Constructor's All Risk Insurance and Industrial All Risk", 2021
- Seminar on "Update the Revenue Code, the Revenue Department, which has been promulgated in the year 2021"
- Seminar on "Accounting Standard Update 2021"
- Certificate, TFRS 9, 13, 15, 16 and a conceptual framework for financial reports (new) Course
- Certificate, Tax Law Update 2022
- Certificate, Follow up TFRS 15 Course (Revenue from Contracts with Customers)
- Certificate, Transfer Pricing 2019 Course, transfer pricing between related companies
- Certificate, Tax Advisor Region 1 Course, Revenue Code, Gen. 5 (2018)
- Mini MBA I Taxation Course (Major in General Business), School of Tax
- Certificate, Financial Model 1 - Fundamentals of Finance Course, Class 2
- Certificate, Modern Accountants Program Class 13, Faculty of Commerce and Accountancy, Chulalongkorn University
- Certificate, Specialist Tax Law Practice Course 2015
- Certificate, Train the Trainer of Anti-Corruption Course, 2018
- Tax Advisor Project, Class 5

Training in 2022

- Seminar on "The Guidelines for Prevention of the Corruption", The Office of Continuing Education, Sukhothai Thammathirat Open University

- Seminar on "Fire Drill and Fire Evacuation for Year 2022"
- Seminar on "Climate Change"
- Seminar on "Corporate Income Tax"
- Seminar on "Thai Financial Reporting Standards (TFRS) 15,16 and Code of Ethics for Professional Accountants"

Working Experience during the Past 5 Years

GUNKUL's Group

2021 - Present	Gunkul Engineering PCL	Senior Vice President, Accounting/ Accounting Supervisor
2019 - 2021	Gunkul Engineering PCL	Senior Vice President, Business Support (Accounting)
2016 - 2017	Gunkul Engineering PCL	Assistant Vice President, Business Support (Accounting)
2017 - Present	Gunkul Training Center Co., Ltd.	Director

Number of companies currently holding the position of a director

- Listed Company (s) : None
- Non-Listed Company (s) : 1

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None



Ms. Chantra Jongjamareeseethong

- Company Secretary
- Secretary to the Good Corporate Governance and Sustainable Development Committee
- Senior Vice President, Office of CEO

Date and month of appointment as Company Secretary and Secretary to the Good Corporate Governance and Sustainable Development Committee

- 10th August 2009 (13 Years 5 months)/ 25th February 2013 (9 Years 10 months)

Age 55 Years



Educational Qualifications

- Master Degree of Business Administration, Major in Accounting, Ramkhamhaeng University
- Bachelor Degree of Business Administration, Major in Accounting, Siam University
- Bachelor Degree of Arts, Major in Linguistics, Thammasat University

History of Training Programs

- Seminar on “Organizing a shareholders’ meeting under the epidemic situation of the coronavirus”, 2021
- Seminar on “Guidelines on preparing a stakeholder report and things to know regarding internal information policy”, 2021
- Seminar on “A new dimension of securities analysis by focusing on sustainability through One-report”, 2021
- Seminar on “Business and Human Rights in ONE REPORT”, 2021
- Seminar on “Corporate Governance (CGR) Workshop 2023”, 2021
- CG Coaching Course
- Certificate, The difference that the Revenue Department often examines between PND 50 vs Phor Por, Clause 65 Twi, Clause 65 Tri Course
- Follow up TFRS 15 (Revenue from Contracts with Customers) Course
- Leadership and Coaching Skills Course, Class 1
- Senior Executive and Organizational Change Course
- Withholding Tax and Update Tax Law 2019 Course
- Accounting for Financial Instruments Course
- The Updated Land and Buildings Tax Act Course
- Certificate, Company Secretary Program, Class 28/2008, Thai Institute of Director (IOD)
- Certificate, Effective Minute Taking (EMT), Class 12/2008, Thai Institute of Director (IOD)
- Certificate, Japanese Certificate Level 3
- Anti-Corruption Training Course

Training in 2022

- Seminar on “The Guidelines for Prevention of the Corruption”, The Office of Continuing Education, Sukhothai Thammathirat Open University
- Seminar on “Corporate Income Tax”

- Seminar on “Thai Financial Reporting Standards (TFRS) 15,16 and Code of Ethics for Professional Accountants”
- Seminar on “Easy Listening : Accounting knowledge that AC should not miss”, The Securities and Exchange Commission
- Seminar on “AGM Checklist “Matters in the point of view of shareholders”, Thai Investors Association
- Seminar on CGR 2023 Coaching, Thai Institute of Directors (IOD) and the Stock Exchange of Thailand
- Company Secretary Professional Development Program, Thai Listed Companies Association
- Certificate, Minute Taking Technique, Thai Company Secretary Club, Thai Listed Companies Association
- Seminar on “Preparation of 56-1 One Report on SETLink system”, The Securities and Exchange Commission and the Stock Exchange of Thailand
- IPO Focus No 2/2022, The Stock Exchange of Thailand

Working Experience during the Past 5 Years

GUNKUL’s Group

2016 - Present	Gunkul Engineering PCL	Senior Vice President, Office of CEO
2013 - Present	Gunkul Engineering PCL	Secretary to the Good Corporate Governance and Sustainable Development Committee
2009 - Present	Gunkul Engineering PCL	Company Secretary

Number of companies currently holding the position of a director

- Listed Company (s) : None
- Non-Listed Company (s) :None

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None



Mr. Tanetsiri Farkmitr

- Secretary to the Audit Committee
- Vice President, Internal Audit
- Head of Internal Audit
- Acting Head of Compliance

Date and month of appointment as Secretary to the Audit Committee

- 20th October 2016 (6 Years 2 months)

Age 46 Years



Educational Qualifications

- Master Degree of Accounting, Thammasat University
- Bachelor Degree of Accounting, Thammasat University
- Certified Public Accountant, CPA (Thailand)

History of Training Programs

- Certificate, Anti-Corruption Training Course, 2021
- Certificate, Accounting Standard No. 41 on Agriculture, 2021
- Certificate, Thai Financial Reporting Standards 2021 and Accounting Standard No. 41 on Agriculture, 2021
- Certificate, Withholding Tax Course, 2021
- Certificate, Update Tax Law Year 2021
- Seminar on “Armed with cybersecurity knowledge and skills for operators and the general public”, 2021
- Seminar on “Readiness check: How prepared are you for the new Transfer Pricing requirements?”, 2021
- Seminar on “Integrating human rights into risk management”, 2021
- Certificate, The difference that the Revenue Department often examines between PND 50 vs Phor Por, Clause 65 Twi, Clause 65 Tri Course, 2021
- Certificate, Auditor Challenges with AI and Block Chain Technology Course
- Certificate, Leadership and Coaching Skills Course, Class 1
- Certificate, Corporate Culture Program
- Certificate, Driving Effective Cultural Course, Class 2
- Certificate, Senior Executive Program and Organizational Change Course
- Certificate, Preparation Course for IT Examination Course No. 2/2019
- Certificate, Negotiate Like PRO Course

Training in 2022

- Seminar on “The Guidelines for Prevention of the Corruption”, The Office of Continuing Education, Sukhothai Thammathirat Open University

- Certificate, Corporate Income Tax
- Seminar on “Thai Financial Reporting Standards (TFRS) 15,16 and Code of Ethics for Professional Accountants”
- Seminar on “Developing and Promoting the Corporate Governance of Government Contracting Parties”
- Certificate, Financial Fraud, Class 2/2022
- Certificate, Accounting in accordance with newly issued tax and laws relating to accounting profession

Working Experience during the Past 5 Years

GUNKUL’s Group

2021 - Present	Gunkul Engineering PCL	Acting Head of the Company’s Compliance Division
2019 - Present	Gunkul Engineering PCL	Vice President, Internal Audit
2016 - Present	Gunkul Engineering PCL	Secretary to the Audit Committee
2016 - Present	Gunkul Engineering PCL	Head of Internal Audit
2016 - 2019	Gunkul Engineering PCL	Assistant Vice Director, Internal Audit

Number of companies currently holding the position of a director

- Listed Company (s) : None
- Non-Listed Company (s) : None

Share Holding Percentage as at 31st December 2022

- None

Relationship between Management

- None

1.2 Details of Company Secretary

The Board of Directors Meeting No. 13/2008 on October 27, 2008, resolved to appoint Ms. Chantira Jongjamareeseethong to be a Company Secretary, with effect from October 27, 2008, since such person has education, knowledge and experience as well as having a degree in accounting which fulfil the ability to perform Company Secretary duties. The Company Secretary's profile is included in Attachment 1.1. Moreover, to ensure compliance with applicable laws and good corporate governance principles, the Company specified the Company Secretary's qualifications, roles, and responsibilities in the Company Secretary Charter as follows:

Qualifications:

1. Having knowledge and understanding the businesses of the Company and the Group.
2. Understanding the Company Secretary's roles and responsibilities.
3. Having knowledge and understanding of the laws, rules, and regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand as well as other relevant supervisory authorities.
4. Having knowledge and understanding of good corporate governance principles and practices.
5. Not attempting or seeking improper benefits for own sake or peers from the Company and the Group as well as maintaining the confidentiality and not disclosing information,

and internal documents of the Company and the Group to outsiders.

Roles and Responsibilities

1. Coordinate and execute various activities related to the Board of Directors' meetings and the shareholders' meeting of the Company in accordance with the good corporate governance principles, rules, regulations and the Company's Articles of Association, including other applicable laws, as well as follow-up to ensure compliance with the resolutions of Board of Directors meetings and shareholders' meeting.
2. Prepare and maintain important documents, such as the director registered book, notices of Board of Directors meetings, minutes of Board of Directors meetings, notices of shareholders meetings, minutes of shareholders meetings, and the Company's annual registration statement/annual report (Form 56-1 One Report), directors and executive officers' Securities Holdings Reports, and Conflict of Interest Reports.
3. Oversee information disclosure in accordance with the regulations of the Stock Exchange of Thailand, the Securities and Exchange Commission, and other relevant supervisory authorities, as well as good corporate governance principles.
4. Report the changes in the securities holdings of directors or executives to the Board of



Directors, on quarterly basis and retain a copy of such report.

5. Provide initial advice to the Board of Directors on laws and regulations related to good corporate governance, maintaining the Company's listed status on the Stock Exchange of Thailand, and laws and regulations relating to the Company's business operations, together with following up to ensure proper and consistent compliance, including regularly update new rules and regulations which might affect the Company.
6. Communicate with shareholders and stakeholders to inform about the Company's news and respective rights of the shareholders and stakeholders.
7. Assure that the Company Secretary Department serves as the central repository for corporate records, which includes corporate

registration documents, Memorandums of Association, Articles of Association, and shareholder registered book.

8. Coordinate to arrange the orientation, as well as providing advice and consultation to the newly appointed director of the Company.
9. Supervise the Board of Directors' activities and other activities as required by law or assigned by the Board of Directors, or as prescribed by the Thai Capital Market Supervisory Board.

Additionally, since the Company recognizes the value of good corporate governance principles, the Company has encouraged Ms. Chantira Jongjamareeseethong, the Company Secretary, to attend the Company Secretary Program Class 28/2008, the Effective Minute Taking (EMT) Class 12/2008 organized by the Thai Institute of Directors (IOD), and other courses to support the Board of Directors' duties and good corporate governance practices continuously.



Attachment 2

Details of the Company's Directors and Executives holding Directorial or Executive Position in Subsidiaries, Associated/Joint Ventures, and Related Companies, and Details of the Subsidiaries' Directors

1. Details of the Company's directors and executives holding directorial or executive position in subsidiaries, associated/joint ventures, and related companies

Company Name			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
			Dr. Gunkul Dhumrongpiyawut	Dr. Chongrak Rarueysong	Assoc. Prof. Dr. Panarat Panmanee	Gen. Tarnchaiyan Srisuwan	Mr. Tarakorn Angpubate	Ms. Sopacha Dhumrongpiyawut	Dr. Somboon Aueatchasai	Ms. Naruechon Dhumrongpiyawut	Mrs. Areewan Chaloeindan	Mr. Chaloepon Sricharoen	Mr. Somchai Triratanapirom	Pol.Maj.Gen. Visit Sukrasep	Mr. Decha Chooligorn	Mr. Hathai Uthai	Mr. Pongtep Thithapand	Mr. Phongsakorn Damnoen	Mr. Chaisiri Wattanachannarong	Mr. Thitipong Techaratanayuenyong	Mr. Theerapab Punyasakhon	Ms. Suttirat Tangnorakul	Ms. Chantra Jongiamareeseethong	Mr. Tanetsiri Farkmitr
Gunkul Engineering PCL			1) 2)	2) 3) 4) 5) 7)	2) 3) 5)	2) 3)	2) 3) 5) 6) 7)	2) 6) 7) 9) 10)	2) 8) 9) 10) 11)	2) 9) 10)	2) 9) 10)	2) 9) 10)	3) 6) 7)	3) 6) 7)	3) 7)	3) 7)	3) 7)	10)	10)	7) 10) 14) 15)	10)	10)	10) 12) 14)	10) 13)
Subsidiaries (Direct and Indirect)	1.	G.K. Assembly Co., Ltd.						2)			2)	2)												
	2.	G.K. Power Products Co., Ltd.						2)			2)	2)												
	3.	K.N.P.Supply Co., Ltd.						2)	2)		2)	2)												
	4.	NK Power Solar Co., Ltd.						2)	2)									2)						
	5.	Gunkul Solar Power 1 Co., Ltd.						2)										2)						
	6.	Gunkul Solar Power 2 Co., Ltd.						2)										2)						
	7.	Bright Green Power Co., Ltd.																2)						
	8.	Siam Gunkul Solar Energy Co., Ltd.						2)										2)						
	9.	Solar Energy Society Co., Ltd.						2)	2)	2)								2)						
	10.	Gunkul Solar Roof 1 Co., Ltd.						2)	2)															
	11.	Gunkul Training Center Co., Ltd.						2)	2)													2)		
	12.	Gunkul Solar Community Co., Ltd.						2)	2)	2)														
	13.	Gunkul Power Development Co., Ltd.						2)	2)						7)				2) 10)					
	14.	Gunkul Utility and Energy Co., Ltd. ⁽³⁾							2)	2)														
	15.	Infinite Alternative Energy Co., Ltd.							2)	2)								2)						
	16.	Rang Ngern Solution Co., Ltd.							2)	2)								2)						

Company Name			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
			Dr. Gunkul Dhumrongpiyawut	Dr. Chongrak Rarueysong	Assoc. Prof. Dr. Panarat Panmanee	Gen. Tarnchaiyan Srisuwan	Mr. Tarakorn Angpubate	Ms. Sopacha Dhumrongpiyawut	Dr. Somboon Aueatchasai	Ms. Naruechon Dhumrongpiyawut	Mrs. Areewan Chaloemdan	Mr. Chaloempon Sricharoen	Mr. Somchai Triratanapirom	Pol.Maj.Gen. Visit Sukarasep	Mr. Decha Chooligorn	Mr. Hathai Uthai	Mr. Pongtep Thithapand	Mr. Phongsakorn Damnoen	Mr. Chaisiri Wattanachannarong	Mr. Thitipong Techaratanayuenyong	Mr. Theerapab Punyasakhon	Ms. Suttirat Tangnorakul	Ms. Chantira Jongjamareeseethong	Mr. Tanetsiri Farkmitr
Gunkul Engineering PCL			1) 2)	2) 3) 4) 5) 7)	2) 3) 5)	2) 3)	2) 3) 5) 6) 7)	2) 6) 7) 9) 10)	2) 8) 9) 10) 11)	2) 9) 10)	2) 9) 10)	2) 9) 10)	3) 6) 7)	3) 6) 7)	3) 7)	3) 7)	3) 7)	10)	10)	7) 10) 14) 15)	10)	10)	10) 12) 14)	10) 13)
Subsidiaries (Direct and Indirect)	17.	GO Bioenergy Co., Ltd. ⁽¹⁾							2)	2)								2)						
	18.	Outgrow D Co., Ltd. ⁽¹⁾								2)	2)							2)						
	19.	Eco Thai Energy Co., Ltd.								2)	2)							2)						
	20.	Gunkul Infinite Group Co., Ltd.						2)	2)	2)								2)						
	21.	BMP Solar Co., Ltd.									2)							2)						
	22.	Gunkul Solar Power Co., Ltd.						2)										2)						
	23.	Future Electricl Control Co., Ltd.						2)	2)										2) 10)					
	24.	Joint Venture GKE & GPD Co., Ltd. ⁽¹⁾						2)										2)						
	25.	Future Energy Corperation Co., Ltd.									2)													
	26.	Joint Venture GPD & TEECL Co., Ltd.						2)											2)					
	27.	Godungfaifaa Platform Co., Ltd. ⁽⁴⁾									2)							2)						
	28.	Gunkul Wind Power 6 Co., Ltd.								2)	2)	2)						2)						
	29.	Gunkul Wind Power 7 Co., Ltd.								2)	2)	2)						2)						
	30.	G.K. Hemp Group Co., Ltd.						2)	2)									2)						
	31.	G.K. Smart Farming Co., Ltd.						2)	2)									2)						
	32.	G.K. Bio Extraction Co., Ltd.						2)	2)									2)						
	33.	Gunkul Wind Power 1 Co., Ltd.						2)	2)									2)						
	34.	Gunkul Wind Power 2 Co., Ltd.						2)	2)									2)						
	35.	Gunkul Wind Power 3 Co., Ltd.						2)	2)									2)						
	36.	Gunkul Wind Power 4 Co., Ltd.						2)	2)									2)						
	37.	Gunkul Wind Power 5 Co., Ltd.						2)	2)									2)						
	38.	G.K. Real Estate (2564) Co., Ltd.							2)	2)										2)				
	39.	Future Power Construction Co., Ltd.							2)										2) 10)					
	40.	Gunkul Wind Power 8 Co., Ltd.							2)	2)								2)						
41.	Gunkul Wind Power 9 Co., Ltd.							2)	2)								2)							
42.	G Wind Power Holding 3 Co., Ltd.							2)	2)								2)							
43.	G Wind Power Holding 5 Co., Ltd.							2)	2)								2)							
44.	GAP Supply Co., Ltd.							2)	2)		2)	2)												

[illegible]

Company Name			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
			Dr. Gunkul Dhumrongpiyawut	Dr. Chongrak Rarueysong	Assoc. Prof. Dr. Panarat Panmanee	Gen. Tarnchaiyan Srisuwan	Mr. Tarakorn Angpubate	Ms. Sopacha Dhumrongpiyawut	Dr. Somboon Aueatchasai	Ms. Naruechon Dhumrongpiyawut	Mrs. Areewan Chaloemdan	Mr. Chaloempon Sricharoen	Mr. Somchai Triratanapirom	Pol.Maj.Gen. Visit Sukarasep	Mr. Decha Chooligorn	Mr. Hathai Uthai	Mr. Pongtep Thithapand	Mr. Phongsakorn Damnoen	Mr. Chaisiri Wattanachannarong	Mr. Thitipong Techaratanayuengyong	Mr. Theerapab Punyasakhon	Ms. Suttirat Tangnorakul	Ms. Chantira Jongjamareeseethong	Mr. Tanetsiri Farkmitr
Gunkul Engineering PCL			1) 2)	2) 3) 4) 5) 7)	2) 3) 5)	2) 3)	2) 3) 5) 6) 7)	2) 6) 7) 9) 10)	2) 8) 9) 10) 11)	2) 9) 10)	2) 9) 10)	2) 9) 10)	3) 6) 7)	3) 6) 7)	3) 7)	3) 7)	3) 7)	10)	10)	7) 10) 14) 15)	10)	10)	10) 12) 14)	10) 13)
Associated/Joint Ventures	1.	G-Power Source Co., Ltd.						2)	2)											2)				
	2.	Gunkul Chubu Powergen Co., Ltd.																2)		2)				
	3.	THCG Group Co., Ltd.								2)								2)						
	4.	Thai Stick Herb Co., Ltd.								2)								2)						
	5.	Origin Gunkul Energy Co., Ltd.								2)	2)							2)						
	6.	JGS Synergy Power Co., Ltd.									2)							2)						
	7.	Gulf Gunkul Corporation Co., Ltd. ⁽⁷⁾								2)	2)							2)						
	8.	Gulf Gunkul Solar Co., Ltd.																						
	9.	Pun New Energy Co., Ltd.									2)	2)												
	10.	Wind Energy Development Co., Ltd.									2)	2)						2)						
	11.	Greenovation Power Co., Ltd.										2)						2)						
	12.	Korat Wind Energy Co., Ltd.							2)	2)								2)						
	13.	WHA Gunkul Green Solar Roof 1 Co., Ltd.							2)															
	14.	WHA Gunkul Green Solar Roof 3 Co., Ltd.							2)															
	15.	WHA Gunkul Green Solar Roof 6 Co., Ltd.							2)															
	16.	WHA Gunkul Green Solar Roof 17 Co., Ltd.							2)															
	17.	Kenyir Gunkul Solar Sdn Bhd.								2)	2)							2)			2)			
Related Companies	1.	Gunkul Group Co., Ltd.	2)					2)		2)								2)						
	2.	Kulnatee Co., Ltd.																						
	3.	Gunkul Trading and Agency Co., Ltd.						2)																
	4.	Gunkul Marine Line Co., Ltd.	2)																					
	5.	Gunkul Engineering (2000) Co., Ltd. ⁽²⁾	2)																					
	6.	G.M. Supply and Construction Co., Ltd.	2)																					
	7.	Happy Green 2558 Co., Ltd.						2)		2)														
	8.	Noppakul Co., Ltd.								2)														
	9.	Great Miracle Asset Co., Ltd.	2)					2)		2)														
	10.	Great Miracle Asset 2 Co., Ltd.	2)					2)		2)														
	11.	Great Miracle Asset 3 Co., Ltd.	2)					2)		2)														
	12.	Great Miracle Asset 4 Co., Ltd.	2)					2)		2)														



Company Name		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
		Dr. Gunkul Dhumrongpiyawut	Dr. Chongrak Rarueysong	Assoc. Prof. Dr. Panarat Panmanee	Gen. Tarnchaiyan Srisuwan	Mr. Tarakorn Angpubate	Ms. Sopacha Dhumrongpiyawut	Dr. Somboon Aueatchasai	Ms. Naruechon Dhumrongpiyawut	Mrs. Areewan Chaloeждан	Mr. Chaloeppen Sritharoen	Mr. Somchai Triratanapirom	Pol.Maj.Gen. Visit Sukrasep	Mr. Decha Chooligorn	Mr. Hathai Uthai	Mr. Pongtep Thithapand	Mr. Phongsakorn Damnoen	Mr. Chaisiri Wattanachannarong	Mr. Thitipong Techaratanayuenyong	Mr. Theerapab Punyasakhon	Ms. Suttirat Tangnorakul	Ms. Chantra Jongjamareeseethong	Mr. Tanetsiri Farkmitr
Gunkul Engineering PCL		1) 2)	2) 3) 4) 5) 7)	2) 3) 5)	2) 3)	2) 3) 5) 6) 7)	2) 6) 7) 9) 10)	2) 8) 9) 10) 11)	2) 9) 10)	2) 9) 10)	2) 9) 10)	3) 6) 7)	3) 6) 7)	3) 7)	3) 7)	3) 7)	10)	10)	7) 10) 14) 15)	10)	10)	10) 12) 14)	10) 13)
Related Companies	13. Great Miracle Asset 5 Co., Ltd.	2)					2)		2)														
	14. Great Miracle Asset 7 Co., Ltd.	2)					2)		2)														
	15. Great Miracle Asset 8 Co., Ltd.	2)					2)		2)														
	16. Great Miracle Asset 9 Co., Ltd.	2)					2)		2)														
	17. Great Miracle Asset 10 Co., Ltd.	2)					2)		2)														
	18. Great Miracle Asset 11 Co., Ltd.	2)					2)		2)														
	19. Great Miracle Asset 12 Co., Ltd.	2)																					
	20. Great Miracle Asset 13 Co., Ltd.	2)					2)		2)														
	21. Pranburi Boulevard Co., Ltd.	2)					2)		2)														
	22. Great Miracle Asset 14 Co., Ltd.	2)					2)		2)														
	23. Kulnatee International Investment Co., Ltd.																						
	24. Green Field Energy Co., Ltd.	2)					2)		2)														
	25. Kingsford Securities PCL		2) 4)																				
	26. Kantana Holdings Co., Ltd.		2) 4) 6) 7)																				
	27. Kingsford Holdings PCL		9)																				
	28. PROEN Corp PCL			2) 3) 5)																			
	29. 988 PLUS Co., Ltd.					10)																	
	30. PCL Holding Co., Ltd.							2) 3) 5) 6) 7)															
	31. Com7 PCL							2) 3) 5) 6)															
	32. Do Home PCL								2) 3) 5) 6)														
	33. Ngernturbo Co., Ltd.								2) 3) 5) 7)														
	34. Integrated Management Consultant Co., Ltd.													2) 10)									
	35. Diamond Security Guard PCL													2)									
	36. Sahacogen (Chonaburi) PCL														2) 3) 5)								
	37. DOD Biotech PCL														2) 3) 5)								



2. Details of the Subsidiaries' directors*

Company Name			1	1	2	3	4	6	7	8	9	10	11	12
			Dr. Gunkul Dhumrongpiyawut	Dr. Chongrak Rarueysong	Assoc. Prof. Dr. Panarat Panmanee	Gen. Tarnchaiyan Srisuwan	Mr. Tarakorn Angpubate	Ms. Sopacha Dhumrongpiyawut	Dr. Somboon Aueatchasai	Ms. Naruechon Dhumrongpiyawut	Mrs. Areewan Chaloeandan	Mr. Chaloepon Sricharoen	Mr. Chaisiri Wattanachannarong	Mr. Janpon Ngamaroonchote
Subsidiaries	1.	G.K. Assembly Co., Ltd.						1)			1)	1)		
	2.	Future Electrical Control Co., Ltd.						2)	2)				2)	
	3.	Gunkul International (Mauritius)												2)

Remark

1) Chairman of the Board of Directors

2) Director

3) Independent Director

4) Chairman of the Audit Committee

5) Audit Committee Member

6) Chairman of Other Sub-Committee

7) Other Sub-Committee Member

8) Chief Executive Officer (CEO)

9) Executive Committee Member

10) Executive

11) Secretary to the Board of Directors

12) Company Secretary

13) Secretary to the Audit Committee

14) Secretary to other Sub-Committee

15) Chief Financial Officer (CFO)

*Subsidiaries that have earnings more than 10 percent of total income according to the profit and loss statement

⁽¹⁾ Liquidation in 2022⁽²⁾ In liquidation process⁽³⁾ Former: Gunkul Energy Solution and Lighting Company Limited⁽⁴⁾ Former: Gunkul B2B Company Limited⁽⁵⁾ Former: Tri Viet Hoa Binh Joint Stock Company⁽⁶⁾ Former: Tan Chau Nang Luong Joint Stock Company⁽⁷⁾ Former: Gunkul Renewable Energy Company Limited



Attachment 3

Details of the Head of Internal Audit and the Head of Compliance

The Audit Committee's Meeting No. 4/2016, held on 20th October 2016, has appointed Mr. Tanetsiri Farkmitr, Vice President - Internal Audit, to be the Company's Head of Internal Audit and Secretary to the Audit Committee. As he has over 11 years of experience in Internal Auditing and is a licensed Certified Public Accountant (CPA) in Thailand, therefore he is qualified to perform such duties properly and sufficiently.

Furthermore, Mr. Tanetsiri Farkmitr has been appointed to be the Company's Acting Head of Compliance, effective from 11th August 2011 onwards, since the Company is in the process of recruiting such position.

Additionally, the Company has prepared the profile of the Head of Internal Audit and Acting Head of Compliance as follows;

Name : Mr. Tanetsiri Farkmitr

Age : 46 years

Current position : Secretary to the Audit Committee
Vice President - Internal Audit
Head of Internal Audit
and Acting Head of Compliance

Educational qualifications : • Master's degree in Accounting, Faculty of Commerce and Accountancy, Thammasat University
• Bachelor's degree in Accounting, Faculty of Commerce and Accountancy, Thammasat University
• Certified Public Accountant (CPA), Thailand

Training / Seminars : • Certificate, Anti-Corruption Training Course, 2021
• Certificate, Accounting Standard No. 41: Agriculture, 2021
• Certificate, Thai Financial Reporting Standards 2021 and Accounting Standard No. 41 : Agriculture, 2021
• Certificate, Withholding Tax Course, 2021
• Certificate, Update on tax law, 2021
• Seminar on "Armed with cybersecurity knowledge and skills for operators and the general public", 2021
• Seminar on "Readiness check: How prepared are you for the new transfer pricing requirements?", 2021
• Seminar on "Integrating human rights into risk management", 2021

- Certificate, The difference that the Revenue Department often examines between PND 50 vs Phor Por, Clause 65 Twi, Clause 65 Tri Course, 2021
- Certificate, Auditor Challenges with AI and Block Chain Technology Course
- Certificate, Leadership and Coaching Skills Course, Class 1
- Certificate, Corporate Culture Program
- Certificate, Driving Effective Cultural Course, Class 2
- Certificate, Senior Executive Program and Organizational Change Course
- Certificate, Preparation Course for IT Examination Course No. 2/2019
- Certificate, Negotiate Like PRO Course

Training in 2022 : • Seminar on "The Guidelines for Prevention of the Corruption", The Office of
• Continuing Education, Sukhothai Thammathirat Open University
• Certificate, Corporate Income Tax
• Seminar on "Thai Financial Reporting Standards (TFRS) 15, 16 and Code of Ethics for Professional Accountants"
• Seminar on "Developing and Promoting the Corporate Governance of Government Contracting Parties"
• Certificate, Financial Fraud, Class 2/2022
• Certificate, Accounting in accordance with newly issued tax and laws relating to accounting profession

Working experience:

Year	Position	Company
2021 - Present	Acting Head of Compliance	Gunkul Engineering Public Company Limited
2019 - Present	Vice President - Internal Audit	Gunkul Engineering Public Company Limited
2016 - Present	Secretary to the Audit Committee	Gunkul Engineering Public Company Limited
2016 - Present	Head of Internal Audit	Gunkul Engineering Public Company Limited
2015 - 2016	Assistant Vice Director - Internal Audit Division	Gunkul Engineering Public Company Limited

In this regard, the approval on appointment, removal, or transfer of the person holding position of the Company's Head of Internal Audit must be approved or deemed appropriate by the Audit Committee.



Attachment 4

Business Asset

Assets used in Business Operation

As of December 31, 2022, the Company and subsidiaries have main fixed assets used in business operations as follows :

List	Ownership type	Net value (Million baht)	Obligations
1. Gunkul Engineering Public Company Limited (“the Company”)			
1. Lands, Buildings and Structures			
1.1 Head office			
Location : 1177 Pearl Bangkok, 8 th Floor (Whole floor) with area size approx. 1,398.60 square meters (To use as the Company’s head office)	Lease	-	Rent a building from TCT Co., Ltd. - None -
1.2 Office branch			
Location : 1038-1046 Nakhon Chaisri Rd., Thanon Nakhon Chaisri Subdistrict, Dusit District, Bangkok			The said land and buildings are owned by Great Miracle Assets Co., Ltd.
• Land, area size approx. 0-3-04 rai or 304 square wa	Lease	-	- None -
• Head office building, area size approx. 2,210 square meters (To use as the Company’s office branch)	Lease	-	- None -
1.3 Warehouse (Pichai)			
Location : 113/1 Soi Mo Suporn, Thanon Nakhon Chaisri Subdistrict Dusit District, Bangkok			The said land and buildings are owned by Great Miracle Assets 2 Co., Ltd.
• Land, area size approx. 1-1-58 rai or 558 square wa	Lease	-	- None -
• Building and structure, area size approx. 4,340 square meters (To store the Company’s products)	Lease	0.67	- None -
1.4 Warehouse (Ruamchit)			
Location : 479/3, 6,7,10 and 12 Ruamchit Rd., Thanon Nakhon Chaisri Subdistrict, Dusit District, Bangkok			The said land and buildings are owned by Great Miracle Assets 3 Co., Ltd.
• Land, area size approx.1-1-60 rai or 560 square wa	Lease	-	Land and buildings are mortgaged with the financial institutions to
• Building and structure, area size approx. 1,920 square meters (To store the Company’s products)	Lease	-	guarantee credit lines of Future Electrical Control Co., Ltd.
1.5 Factory building and warehouse (GKA)			
Location : 110/9-10 Moo 2, Maha Sawat Subdistrict, Bang Kruai District, Nonthaburi Province			All land and some of the buildings are owned by G.K. Assembly Co., Ltd. and some buildings are owned by GUNKUL and KNP.
• Land, area size approx. 8-0-56 rai or 3,256 square wa	-	-	- None -
• Building and structure, area size approx. 9,053.50 square meters (GUNKUL’s property, 3,511 square meters) (To use as a factory and storage of GKA’s products)	Owner	0.73 (GUNKUL)	- None -
1.6 Document storage warehouse			
Location : Nakhon Chaisri Rd., Dusit District, Bangkok			The said land and building are owned by Great Miracle Assets 8 Co., Ltd.
• Land, area size approx. 0-3-12 rai or 312 square wa and area size approx. 0-3-8.7 rai or 308.70 square wa	Lease	-	



List	Ownership type	Net value (Million baht)	Obligations
1.7 Land 19-2-23 rai Location : Nong Kum Subdistrict, Bo Phloi District, Kanchanaburi Province			
• Land, area size approx. 19-2-23 square wa (To use as area for the subsidiary's power plant operations)	Owner	3.14	- None -
2. Building improvement and utilities systems Location : 1038-1046 Nakhon Chaisi Rd., Thanon Nakhon Chaisi Subdistrict, Dusit District, Bangkok	Owner	0.37	- None -
3. Tools	Owner	0.34	- None -
4. Furnishing and office supplies	Owner	12.70	- None -
5. Vehicles	Owner	18.79	Under the leasing contracts, a total of 7 vehicles
2. G.K. Assembly Co., Ltd. ("Subsidiary")			
1. Land and Structure, 2 Places			
1.1 Headquarter, factory and warehouse (GKA) Location : 110/9-10 Moo 2, Maha Sawat Subdistrict, Bang Kruai District, Nonthaburi Province			
• Land, area size approx. 8-0-56 rai or 3,256 square wa	Owner	83.21	- None -
• Office building and warehouse, assembly building and plastic factory, etc., area size approx. 5,538 square meters.	Owner	13.71	- None -
• Factory building and warehouse, area size approx. 3,511 square meters (GUNKUL's property)	-	-	- None -
• Guardhouse, area size approx. 4.5 square meters (KNP's property)	-	-	- None -
1.2 Vacant land, 7-0-68 rai Location : Plai Bang Rd., Maha Sawat District, Bang Kruai District, Nonthaburi Province			The said land is owned by Great Miracle Asset 9 Co., Ltd.
• Land, area size approx. 7-0-68 rai (Area leased by GKA about 3,472 square meters) (To use as storage for GKA's products)	Lease	-	- None -
2. Building improvements and utilities Location : 110/9-10 Moo 2, Maha Sawat Subdistrict, Bang Kruai District, Nonthaburi Province	Owner	14.50	- None -
3. Machinery and factory equipment • Machinery equipment and tools	Owner	25.45	- None -
4. Furnishings and office supplies	Owner	3.01	- None -
5. Vehicles	Owner	4.22	Under the leasing contract, a total of 1 vehicle



List	Ownership type	Net value (Million baht)	Obligations
3. G.K. Power Products Co., Ltd. (“Subsidiary”)			
1. Land and Structures, 2 Places			The said land and some of the structures are owned by Great Miracle Asset 7 Co., Ltd.
1.1 Headquarter, factory and warehouses			
Location : 9 Moo 2, Maha Sawat Subdistrict, Bang Kruai District, Nonthaburi Province			
• Land, area size approx. 300 square wa	Sublease	-	- None -
• Office building and warehouse, area size approx. 1,753 square meters Factory area about 750 square meters	Owner	4.81	- None -
	Lease	-	The said land and some of the structures are owned by Saengaree Estate Co., Ltd.
• Warehouse building 525 square meters	Lease		Under contract no. 49/1-6210-39
• Warehouse building 525 square meters	Lease		Under contract no. 49/2-6210-39
• Warehouse building 525 square meters	Lease		Under contract no. 49/3-6210-39
• Warehouse building 525 square meters	Lease		Under contract no. 49/4-6210-39
2. Machinery and factory equipment			
• Machinery equipment and tools	Owner	34.69	- None -
3. Furnishings and office supplies	Owner	0.89	- None -
4. Vehicles	Owner	4.96	Under the leasing contract, a total of 1 vehicle
4. K.N.P. Supply Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Tools and equipment	-	0.02	- None -
3. Furnishings and office supplies	Owner	0.40	- None -
4. Vehicles	Owner	-	- None -
5. NK Power Sola Co., Ltd. (“Subsidiary”)			
1. Head Office			For use as an office for business operations
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
1.2 Land and buildings, using for the business of generating electricity from solar energy			Such land is owned by Gunkul Engineering Public Company Limited
Location : Nong Kum Subdistrict, Bo Phloi District, Kanchanaburi Province			
• Land, area size approx. 19 rai 2 ngan 23.0 square wa	Lease	-	
• Structure	Owner	9.79	



List	Ownership type	Net value (Million baht)	Obligations
2. Tools, machinery and equipment	Owner	31.83	- None -
3. Furnishings and office supplies	Owner	-	- None -
4. Vehicles	-	-	- None -
6. Gunkul Solar Power 2 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
1.2 Land for solar power generation business			
Location : Surasak Subdistrict, Si Racha District, Nonthaburi Province			
• Land and buildings	Lease	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Tools, machinery and equipment	Owner	23.78	- None -
4. Work under construction	Owner	-	- None -
7. Siam Gunkul Solar Energy Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
1.2 Land for solar power generation business			
Location : Vibhavadi Rangsit Rd., Sanambin Subdistrict, Don Mueang District, Bangkok			
• Land and buildings	Lease	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Tools, machinery and equipment	Owner	23.91	- None -
8. Solar Energy Society Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
1.2 Land for solar power generation business			
Location : Pracharat 1 Rd., Wong Sawang Subdistrict, Bang Sue District, Bangkok			
• Land and buildings	Lease	-	- None -



List	Ownership type	Net value (Million baht)	Obligations
2. Building, building improvement and utilities	Owner	-	- None -
3. Tools, machinery and equipment	Owner	17.04	- None -
4. Work under construction	Owner	980.36	- None -
9. Gunkul Solar Roof 1 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
1.2 Land for solar power generation business			
Location : 113/1 Pichai Rd., Nakhon Chaisri Subdistrict, Dusit District, Bangkok			
Location : Bang Kruai-Sai Noi Rd., Maha Sawat Subdistrict, Bang Kruai District, Nonthaburi Province			
• Land and buildings	Lease	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Tools, machinery and equipment	Owner	12.82	- None -
10. Gunkul Power Development Co., Ltd. (“Subsidiary”)			
1. Head Office			Rent a building from TCT Co., Ltd.
Location : 1177 Pearl Bangkok Building, 6 th Area size approx. 116 square meters (To use as the Company’s head office)	Lease	-	- None -
2. Tools, machinery and equipment	Owner	0.50	- None -
3. Furnishings and office supplies	Owner	0.19	- None -
4. Vehicles	Lease	0.14	Under the leasing contract, a total of 1 vehicle
11. Gunkul Solar Community Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Tools, machinery and equipment	Owner	0.46	- None -
3. Furnishings and office supplies	Owner	0.01	- None -
4. Vehicles	Lease	1.11	Under the leasing contract, a total of 2 vehicles



List	Ownership type	Net value (Million baht)	Obligations
12. Gunkul Utility and Energy Co., Ltd. (“Subsidiary”) (Former : Gunkul Energy Solution and Lighting Co., Ltd.)			
1. Head Office			Commercial building area for use as an office for business operations
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement	Owner	1.21	- None -
3. Tools, machinery and equipment	Owner	7.44	- None -
4. Furnishings and office supplies	Owner	5.27	- None -
5. Work under construction (Decorate 3rd Floor)	Owner	4.78	- None -
13. Rangngern Solution Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
1.2 Land for solar power generation business			
Location : Kanchanaburi, Phetchaburi, Phrae, Lampang, Phetchaburi, Prachuap Khiri Khan (Provinces)			The aforementioned land, buildings, machinery and equipment are owned by Rangngern Solution Co., Ltd. and mortgaged with financial institutions to guarantee credit lines of Rangngern Solution Co., Ltd.
• Land and buildings	Owner	300.31	
2. Building, building improvement and utilities	Owner	423.59	- None -
3. Tools, machinery and equipment	Owner	3,083.19	- None -
4. Furnishings and office supplies	Owner	0.07	- None -
5. Work under construction	Owner	-	- None -
14. Future Electrical Control Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, Room 12A01, 12A th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Machinery and equipment	Owner	0.58	- None -
3. Furnishings and office supplies	Owner	1.99	- None -
4. Vehicles	Owner	12.35	Under the leasing contract, a total of 17 vehicles



List	Ownership type	Net value (Million baht)	Obligations
15. Future Energy Corporation Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Machinery and equipment	Owner	-	- None -
3. Furnishings and office supplies	Owner	0.86	- None -
4. Work under construction	Owner	1.87	- None -
16. Gunkul Godungfaifaa Platform Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Furnishings and office supplies	Owner	0.46	- None -
3. Machinery and equipment	Owner	-	- None -
17. G.K. Real Estate (2564) (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
18. Tri Viet Tay Ninh Joint Stock Company (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	Owner	136.88	- None -
3. Machinery and equipment	Owner	628.33	- None -
19. Bach Khoa A Chau Tay Ninh Joint Stock Company (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -



List	Ownership type	Net value (Million baht)	Obligations
2. Building, building improvement and utilities	Owner	143.05	- None -
3. Machinery and equipment	Owner	632.51	- None -
20. Tan Chau Energy Joint Stock Company (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	Owner	89.78	- None -
3. Machinery and equipment	Owner	972.90	- None -
21. Doan Son Thuy Investment Joint Stock Company (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	Owner	451.21	- None -
3. Machinery and equipment	Owner	594.29	- None -
22. Gunkul Wind Power 1 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	0.81	Under the leasing contract, a total of 1 vehicle
4. Work under construction	Owner	9.45	- None -
23. Gunkul Wind Power 2 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	Owner	1.18	- None -



List	Ownership type	Net value (Million baht)	Obligations
24. Gunkul Wind Power 3 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-		- None -
3. Machinery and equipment	Owner	2.87	- None -
4. Furnishings and office supplies	Owner	0.01	- None -
5. Vehicles	Owner	0.86	Under the leasing contract, a total of 1 vehicle
6. Work under construction	Owner	0.82	- None -
25. Gunkul Wind Power 4 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Work under construction	Owner	1.02	- None -
26. Gunkul Wind Power 5 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	Owner	9.05	- None -
4. Vehicles	Owner	0.86	Under the leasing contract, a total of 1 vehicle
5. Work under construction	Owner	0.82	- None -



List	Ownership type	Net value (Million baht)	Obligations
27. G.K. Hemp Group Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Furnishings and office supplies	Owner	0.09	- None -
5. Vehicles	Owner	0.48	- None -
28. G.K. Smart Farming Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
1.2 Land for use in hemp cultivation business			The said land is owned by
Location : 425 Huay Bong Subdistrict, Dan Khun Thot District, Nakhon Ratchasima Province			Wind Energy Development Co., Ltd.
• Land, area size approx. 80 rai 1 ngan 45 square wa	Lease	-	
2. Land improvement	Owner	46.61	- None -
3. Building, building improvement and utilities	Owner	236.62	- None -
4. Machinery and equipment	Owner	102.43	- None -
5. Furnishings and office supplies	Owner	2.61	- None -
6. Vehicles	Owner	0.76	- None -
7. Work under construction	Owner	3.77	- None -
29. G.K. Bio Extraction Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -



List	Ownership type	Net value (Million baht)	Obligations
2. Land for the business of extracting essential substances from hemp Location : 98/1 Bueng Nam Rak Subdistrict, Thanyaburi District, Pathum Thani Province <ul style="list-style-type: none"> Land, area size approx. 40.1 square wa Head office building, area size approx. 1,389.75 square meters Factory building, area size approx. 482.60 square meters (To use as the Company's office branch) 	Owner	9.19	The said land is owned by G.K. Bio Extraction Co., Ltd.
3. Building, building improvement and utilities	Owner	21.95	- None -
4. Machinery and equipment	Owner	46.21	- None -
5. Furnishings and office supplies	Owner	0.45	- None -
6. Work under construction	Owner	43.46	- None -
30. Gunkul Training Center Co., Ltd. (“Subsidiary”)			
1. Head Office 1.1 Office Building Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	Commercial building area for use as an office for business operations. - None -
2. Furnishings and office supplies	Owner	-	- None -
31. Gunkul Infinite Group Co., Ltd. (“Subsidiary”)			
1. Head Office 1.1 Office Building Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	Commercial building area for use as an office for business operations. - None -
2. Work under construction	Owner	11.32	- None -
32. Eco Thai Energy Co., Ltd. (“Subsidiary”)			
1. Head Office 1.1 Office Building Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	Commercial building area for use as an office for business operations. - None -
2. Building, building improvement and utilities	Owner	55.18	- None -
3. Machinery and equipment	Owner	141.17	- None -
4. Furnishings and office supplies	Owner	0.01	- None -



List	Ownership type	Net value (Million baht)	Obligations
33. BMP Solar Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
1.2 Land for solar power generation business			
Location : Sa Kaeo Province			
• Land and buildings	Owner	35.00	The aforementioned land, buildings, machinery and equipment are owned by BMP Solar Co., Ltd. The parent company and its holders have mortgaged as credit collateral that the parent company receives from financial institutions.
2. Building, building improvement and utilities	Owner	16.09	- None -
3. Machinery and equipment	Owner	394.21	- None -
4. Furnishings and office supplies	Owner	0.01	- None -
34. Gunkul Wind Power 6 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Work under construction	Owner	4.23	- None -
35. Gunkul Wind Power 7 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Work under construction	Owner	0.29	- None -



List	Ownership type	Net value (Million baht)	Obligations
36. Gunkul Wind Development 1 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Work under construction	-	-	- None -
37. Gunkul Wind Development 3 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Furnishings and office supplies	Owner	0.02	- None -
38. Gunkul Wind Development 6 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Furnishings and office supplies	Owner	0.03	- None -
39. Gunkul Wind Development 8 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Furnishings and office supplies	Owner	0.03	- None -



List	Ownership type	Net value (Million baht)	Obligations
40. Future Power Construction Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	Owner	-	- None -
3. Machinery and equipment	Owner	6.97	- None -
41. Gunkul Wind Power 8 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Work under construction	-	-	- None -
42. Gunkul Wind Power 9 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Work under construction	-	-	- None -
43. G Wind Power Holding 3 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Work under construction	-	-	- None -



List	Ownership type	Net value (Million baht)	Obligations
44. G Wind Power Holding 5 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
2. Building, building improvement and utilities	-	-	- None -
3. Machinery and equipment	-	-	- None -
4. Work under construction	-	-	- None -
45. Gunkul Solar Powergen Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
46. Gunkul One Energy 2 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
47. Gunkul One Energy 5 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
48. Gunkul One Energy 9 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -
49. Gunkul One Energy 11 Co., Ltd. (“Subsidiary”)			
1. Head Office			Commercial building area for use as an office for business operations.
1.1 Office Building			
Location : 1177 Pearl Bangkok Building, 8 th Floor, Phaholyothin Rd., Phayathai Subdistrict, Phayathai District, Bangkok	-	-	- None -



Trademark

Gunkul Engineering Public Company Limited owns the “GUNKUL” trademark for fuse products, which has been registered with the Trademark Office, Department of Intellectual Property, since July 20, 2006. For electrical switch fuse set, street light controllers set, safety belt set, and street light lamp set, have been registered with the Trademark Office, Department of Intellectual Property, since May 27, 2010. Whereas the “GTOPWELD” trademark is for electrical connection equipment, which has been registered since October 12, 2010.

G.K. Assembly Co., Ltd. owns the “GK” trademark for prefabricated metal frame for mounting electrical and telephone. The trademark has been registered with the Trademark Office, Department of Intellectual Property, since July 9, 2004. It also owns the “ZIMTAP” and “ZIMLUG” trademarks for electrical connection equipment, and the “PIGMAN” trademark for lightning protection equipment, which these trademarks have been registered with the Trademark Office, Department of Intellectual Property, since June 15, 2010, June 17, 2010 and June 18, 2010, respectively.

G.K. Power Products Co., Ltd. owns the “GKP” trademark for electrical distribution/ control equipment, which has been registered with the Trademark Office, Department of Intellectual Property, since October 14, 2010.

Important Agreements as of December 31, 2022

1) Land and Building Lease Agreement

Contract	Parties	Period	Details
1. Gunkul Engineering PCL			
1.1 Head Office Building Lease Agreement	T.C.T. Co., Ltd.	3 years February 1, 2021 to January 31, 2024	<u>Leased Property</u> The building where the head office is located <u>Rental Rate (New)</u> Fixed rental rate at 696,502.80 baht per month, with a service agreement of 464,335.20 baht per month. <u>Agreement Renewal</u> Notify in writing at least 180 days prior to the expiration of the rental period. <u>Termination of Agreement</u> Notify in writing at least 30 days in advance.
1.2 Agreement to use the building which the factory of G.K. Assembly Co., Ltd. is located	G.K. Assembly Co., Ltd.	Starting from January 1, 2018 onwards	<u>Leased Property</u> Factory building for production <u>Rental Rate</u> - None- <u>Agreement Renewal</u> Notify in writing at least 30 days prior to the expiration of the rental period. <u>Termination of Agreement</u> Notify in writing at least 30 days in advance, which a rent must be paid in the amount of 1 month since the date the lessor acknowledges the intent to terminate the agreement.



Contract	Parties	Period	Details
1.3 Land, Building and Structure Lease Agreement	Great Miracle Asset Co., Ltd.	January 1, 2021 to December 31, 2023	<u>Leased Property</u> Land and buildings for the Company's branch office <u>Rental Rate</u> Fixed rental rate at 260,300 baht per month. (January 1, 2021 to December 31, 2023) <u>Termination of Agreement</u> If the lessee breaches any of the lease agreements, the lessor has the right to terminate the agreement.
1.4 Land Lease Agreement	Great Miracle Asset 2 Co., Ltd.	3 Years January 1, 2021 to December 31, 2023	<u>Leased Property</u> Land for storing the Company's products <u>Rental Rate</u> Fixed rental rate at 184,500 baht per month. (January 1, 2021 to December 31, 2023) <u>Termination of Agreement</u> If the lessee breaches any of the lease agreements, the lessor has the right to terminate the agreement.
1.5 Land, Building and Structure Lease Agreement	Great Miracle Asset 3 Co., Ltd.	3 Years January 1, 2021 to December 31, 2023	<u>Leased Property</u> Land and buildings for storing the Company's products <u>Rental Rate</u> Fixed rental rate at 164,560 baht per month. (January 1, 2021 to December 31, 2023) <u>Termination of Agreement</u> If the lessee breaches any of the lease agreements, the lessor has the right to terminate the agreement.
1.6 Land, Building and Structure Lease Agreement	Great Miracle Asset 8 Co., Ltd.	3 Years January 1, 2021 to December 31, 2023	<u>Leased Property</u> Land and buildings for storing the Company's documents <u>Rental Rate</u> Fixed rental rate at 91,700 baht per month. <u>Termination of Agreement</u> If the lessee breaches any of the lease agreements, the lessor has the right to terminate the agreement.
1.7 The lease agreement of the roof area of the factory building for installation of solar panels	Gunkul Solar Roof 1 Co., Ltd.	3 Years Start September 3, 2014 by extending the agreement for 3 years each time	<u>Leased Property</u> For installation of solar panels on the roof <u>Rental Rate</u> Fixed rental rate at 1,800 baht per month.



Contract	Parties	Period	Details
2. G.K. Assembly Co., Ltd.			
2.1 Factory Building Sublease Agreement	G.K. Power Products Co., Ltd.	3 Years January 4, 2021 to December 31, 2023	<u>Leased Property</u> Factory Building, Plastic Department, of G.K. Power Products Co., Ltd. <u>Rental Rate</u> Fixed rental rate at 83,000 baht per month. (January 1, 2018 to February 28, 2018) Fixed rental rate at 91,800 baht per month. (March 1, 2018 to December 31, 2020) Fixed rental rate at 60,000 baht per month. (January 4, 2021 to December 31, 2023) <u>Agreement Renewal</u> Notify in writing at least 30 days prior to the expiration of the rental period. <u>Termination of Agreement</u> Notify in writing at least 30 days in advance, which a rent must be paid in the amount of 1 month since the date the lessor acknowledges the intent to terminate the agreement.
2.2 Land Lease Agreement for Storage of Goods	Great Miracle Asset 9 Co., Ltd.	3 Years January 4, 2021 to December 31, 2023	<u>Leased Property</u> Vacant land for storage <u>Rental Rate</u> Fixed rental rate at 63,600 baht per month. (January 1, 2018 to February 28, 2018) Fixed rental rate at 70,000 baht per month. (March 1, 2018 to December 31, 2020) Fixed rental rate at 70,000 baht per month. (January 4, 2021 to December 31, 2023) <u>Agreement Renewal</u> Notify in writing at least 30 days prior to the expiration of the rental period. <u>Termination of Agreement</u> Notify in writing at least 30 days in advance, which a rent must be paid in the amount of 1 month since the date the lessor acknowledges the intent to terminate the agreement.
2.3 The lease agreement of the roof area of the factory building for installation of solar panels	Gunkul Solar Roof 1 Co., Ltd.	3 Years (Start September 2, 2014 by extending the agreement for 3 years each time)	<u>Leased Property</u> For installing solar panels on the roof <u>Rental Rate</u> Fixed rental rate at 10,368 baht per month.



Contract	Parties	Period	Details
3. G.K. Power Products Co., Ltd.			
3.1 Land and Building Sublease Agreement, which the head office, factory, and warehouse are located	Great Miracle Asset 7 Co., Ltd.	3 Years January 1, 2021 to December 31, 2023	<u>Leased Property</u> Land, Test Building and Warehouse <u>Rental Rate</u> Fixed rental rate at 51,000 baht per month. (January 1, 2018 to February 28, 2018) Fixed rental rate at 56,300 baht per month. (March 1, 2018 to December 31, 2020) Fixed rental rate at 56,300 baht per month. (January 1, 2021 to December 31, 2023) <u>Agreement Renewal</u> Notify in writing at least 30 days prior to the expiration of the rental period. <u>Termination of Agreement</u> Notify in writing at least 30 days in advance, which a rent must be paid in the amount of 1 month since the date the lessor acknowledges the intent to terminate the agreement.
3.2 Factory Building Lease Agreement	Gunkul Energy Solution and Lighting Co., Ltd.	3 Years October 1, 2019 to December 31, 2022	<u>Leased Property</u> Factory building for producing and selling LED lighting <u>Rental Rate</u> Fixed rental rate at 66,150 baht per month. (October 1, 2019 to December 31, 2022) <u>Agreement Renewal</u> Notify in writing at least 30 days prior to the expiration of the rental period. <u>Termination of Agreement</u> Notify in writing at least 30 days in advance, which a rent must be paid in the amount of 1 month since the date the lessor acknowledges the intent to terminate the agreement.
4. NK Power Sola Co., Ltd.			
4.1 Land lease agreement for power plant business	Gunkul Engineering PCL	26 Years June 12, 2023 to June 11, 2039	<u>Leased Property</u> Land for the business of generating electricity from solar power plants <u>Rental Rate</u> Rental rate at 176,010 Baht per year by increasing the rental rate at 10% every 4 years <u>Termination of Agreement</u> If the lessee breaches any of the lease agreements, the lessor has the right to terminate the agreement.



Contract	Parties	Period	Details
5. Gunkul Utility and Energy Co., Ltd. (“Subsidiary”) (Former : Gunkul Energy Solution and Lighting Co., Ltd			
5.1 Factory Building Lease Agreement	G.K. Power Products Co., Ltd.	3 Years 3 Months October 1, 2019 to December 31, 2022	<u>Leased Property</u> Factory building for producing and selling LED <u>Rental Rate</u> Fixed rental rate at 66,150 baht per month. (October 1, 2019 to December 31, 2022) <u>Termination of Agreement</u> If the lessee breaches any of the lease agreements, the lessor has the right to terminate the agreement 30 days in advance.
5.2 Head Office Building Lease Agreement	T.C.T. Co., Ltd.	1 Year 7 Months July 1, 2022 to December 31, 2024	<u>Leased Property</u> The building where the head office is located <u>Rental Rate (New)</u> Fixed rental rate at 341,628 baht per month, with a service agreement of 227,752 baht per month. <u>Agreement Renewal</u> Notify in writing at least 180 days prior to the expiration of the rental period. <u>Termination of Agreement</u> Notify in writing at least 30 days in advance.
6. Gunkul Power Development Co., Ltd.			
6.1 Head Office Building Lease Agreement	T.C.T. Co., Ltd.	3 Years February 1, 2020 to January 31, 2023	<u>Leased Property</u> The building where the head office is located <u>Rental Rate</u> Fixed rental rate at 62,640 baht per month, with a service agreement of 41,760 baht per month. <u>Agreement Renewal</u> Notify in writing at least 180 days prior to the expiration of the rental period. <u>Termination of Agreement</u> Notify in writing at least 30 days in advance.
6.2 Factory Building Lease Agreement	G.K. Power Products Co., Ltd.	2 Years 1 Month December 1, 2021 to December 31, 2023	<u>Leased Property</u> Buildings and structures to use for the Company's business <u>Rental Rate</u> Fixed rental rate at 17,700 baht per month. (December 1, 2021 to December 31, 2023) <u>Termination of Agreement</u> If the lessee breaches any of the lease agreements, the lessor has the right to terminate the agreement 30 days in advance.



Contract	Parties	Period	Details
6.3 Land, Building and Structure Lease Agreement	Great Miracle Asset 3 Co., Ltd.	3 Years January 1, 2021 to December 31, 2023	<u>Leased Property</u> Land and structure for storing the Company's products <u>Rental Rate</u> Fixed rental rate at 19,360 baht per month. (January 1, 2021 to 31 December 2023) <u>Termination of Agreement</u> If the lessee breaches any of the lease agreements, the lessor has the right to terminate the agreement.
6.4 Land, Building and Structure Lease Agreement	Great Miracle Asset 4 Co., Ltd.	3 Years January 1, 2021 to December 31, 2023	<u>Leased Property</u> Land and structure for storing the Company's products <u>Rental Rate</u> Fixed rental rate at 19,360 baht per month. (January 1, 2021 to 31 December 2023) <u>Termination of Agreement</u> If the lessee breaches any of the lease agreements, the lessor has the right to terminate the agreement.
7. Future Electrical Control Co., Ltd.			
7.1 Head Office Building Lease Agreement	T.C.T. Co., Ltd.	3 Years February 1, 2021 to January 31, 2024	<u>Leased Property</u> The building where the head office is located <u>Rental Rate</u> Fixed rental rate at 180,480 baht per month, with a service agreement of 120,320 baht per month. <u>Agreement Renewal</u> Notify in writing at least 180 days prior to the expiration of the rental period. <u>Termination of Agreement</u> Notify in writing at least 30 days in advance.
7.2 Land, Building and Structure Lease Agreement	Great Miracle Asset 3 Co., Ltd.	3 Years January 1, 2021 to December 31, 2023	<u>Leased Property</u> Land and structure for storing the Company's products <u>Rental Rate</u> Fixed rental rate at 9,680 baht per month. <u>Termination of Agreement</u> If the lessee breaches any of the lease agreements, the lessor has the right to terminate the agreement.



Contract	Parties	Period	Details
7.3 Land, Building and Structure Lease Agreement	Great Miracle Asset 4 Co., Ltd.	3 Years January 1, 2021 to December 31, 2023	<u>Leased Property</u> Warehouse area (Ratchaneekorn) <u>Rental Rate</u> Fixed rental rate at 30,400 baht per month. <u>Agreement Renewal</u> Notify in writing at least 30 days prior to the expiration of the rental period. <u>Termination of Agreement</u> Notify in writing at least 30 days in advance, which a rent must be paid in the amount of 1 month since the date the lessor acknowledges the intent to terminate the agreement.
8. Gunkul Godungfaifaa Platform Co., Ltd.			
8.1 Building Lease Agreement for Storage of Goods	Gunkul Engineering Public Company Limited	3 Years May 1, 2021 to December 31, 2022	<u>Leased Property</u> Warehouse area (Ratchaneekorn) <u>Rental Rate</u> Fixed rental rate at 19,663 baht per month. (May 1, 2021 to May 31, 2021) Fixed rental rate at 16,854 baht per month. (June 1, 2021 to June 30, 2021) Fixed rental rate at 39,326 baht per month. (July 1, 2021 to July 31, 2021) Fixed rental rate at 42,135 baht per month. (August 1, 2021 to December 31, 2022) <u>Agreement Renewal</u> Notify in writing at least 30 days prior to the expiration of the rental period. <u>Termination of Agreement</u> Notify in writing at least 30 days in advance, which a rent must be paid in the amount of 1 month since the date the lessor acknowledges the intent to terminate the agreement.



2) Power Purchase Agreement from EGAT of Associated Companies

No.	Company	Party	Number of project (Project)	Total size of electricity distribution	Province where the project is located	Period of supplying electricity into the system	Operation
1.	Wind Energy Development Co., Ltd.	EGAT	1	50.0 MW	Nakhon Ratchasima	2016	On schedule
2.	Greenovation Power Co., Ltd.	EGAT	1	67.5 MW	Nakhon Ratchasima	2018	On schedule
3.	Korat Wind Energy Co., Ltd.	EGAT	1	50.0 MW	Nakhon Ratchasima	2018	On schedule

EGAT : Electricity Generating Authority of Thailand MW : Megawatt

Details of Power Purchase Agreement

- Agreement details** : The Electricity Generating Authority of Thailand and 3 associated companies have agreed to trade electricity at a voltage of 115 kilovolts according to the regulations for the purchase of electricity from electricity supplier for generating electricity from renewable energy. The purchase point are as detailed above at the project location.
- Trading conditions** : The electricity supplier is required to sell electricity to the EGAT within the date specified in the agreement. (The date set for selling electricity to the EGAT)
- Agreement period** : 5 years from the agreement signing date and automatically renewed for 5 years each time. The party wishing to renew the agreement must notify the other party in writing in advance at least 30 days before the agreement expires.
- Termination of Agreement** : If the counterparty fails to comply with one of the agreements, the other party shall notify other party to take corrective action. If no corrective action is taken, the other party has the right to terminate the agreement.

3) Power Purchase Agreement from PEA of Subsidiaries

No.	Company	Party	Number of project (Project)	Total size of electricity distribution	Province where the project is located	Period of supplying electricity into the system	Operation
1.	Rangngern Solution Co., Ltd.	PEA	11	87.0 MW	Kanchanaburi, Phetchaburi, Prachuap Khiri Khan, Lampang, Phrae	2015 2016	On schedule On schedule
2.	NK Power Sola Co., Ltd.	PEA	1	1.0 MW	Kanchanaburi	2013	On schedule
3.	Gunkul Solar Power 2 Co., Ltd.	PEA	1	538.56 kW	Chonburi	2013	On schedule

PEA : Provincial Electricity Authority MW : Megawatt kW : Kilowatt



Details of Power Purchase Agreement

- Agreement details** : The Provincial Electricity Authority and 3 subsidiaries have agreed to trade electricity at a voltage of 22,000 volts according to the regulations for the purchase of electricity from a very small electricity supplier for generating electricity from renewable energy. The purchase point are as detailed above at the project location.
- Trading conditions** : The electricity supplier is required to sell electricity to the PEA within the date specified in the agreement. (The date set for selling electricity to the PEA)
- Agreement period** : 5 years from the agreement signing date and automatically renewed for 5 years each time. The agreement shall be effective until it is terminated.
- Termination of Agreement** : 1. The electricity supplier submits a written letter to the PEA expressing an intention to cancel electricity trading by terminating the agreement.
2. If the counterparty fails to comply with one of the agreements, the other party shall notify other party to take corrective action. If no corrective action is taken, the other party has the right to terminate the agreement.

No.	Company	Party	Number of project (Project)	Total size of electricity distribution	Province where the project is located	Period of supplying electricity into the system	Operation
1.	Eco Thai Energy Co., Ltd.	PEA	1	5.0 MW	Samut Sakhon	2016	On schedule
2.	BMP Solar Co., Ltd.	PEA	1	8.0 MW	Sa Kaeo	2016	On schedule
3.	Gunkul Infinite Group Co., Ltd.	PEA	3	1.3656 kW	Pathum Thani Samut Prakan Phetchaburi	2020 2021	On schedule

PEA : Provincial Electricity Authority MW : Megawatt kW : Kilowatt

Details of Power Purchase Agreement

- Agreement details** : The Provincial Electricity Authority and 3 subsidiaries have agreed to trade electricity at a voltage of 22 kilovolts according to the regulations for the purchase of electricity from a very small electricity supplier for generating electricity from renewable energy. The purchase point are as detailed above at the project location.
- Trading conditions** : The electricity supplier is required to sell electricity to the PEA within the date specified in the agreement. (The date set for selling electricity to the PEA)
- Agreement period** : 25 years from the agreement signing date for Eco Thai Energy Co., Ltd. and BMP Solar Co., Ltd. For Gunkul Infinite Group Co., Ltd., starting on the commencement date of trading electricity and ending on the same date as the land and building sublease agreement.
- Termination of Agreement** : 1. When the electricity purchaser receives a written notice of termination of agreement from the electricity supplier.
2. When one party terminates the agreement due to the other party fails to comply with any of the agreements



4) Power Purchase Agreement from PEA of Associated Companies

No.	Company	Party	Number of project (Project)	Total size of electricity distribution	Province where the project is located	Period of supplying electricity into the system	Operation
1.	Gunkul Chubu Powergen Co., Ltd.	PEA	6	24.4 MW	Phetchabun, Nakhon Nayok, Phichit	2011 2013	On schedule
2.	G-Power Source Co., Ltd.	PEA	4	26.0 MW	Nakhon Sawan, Chainat, Phetchabun	2012 2013	On schedule
3.	Wind Energy Development Co., Ltd.	PEA	2	10.0 MW	Nakhon Ratchasima	2016	On schedule

PEA : Provincial Electricity Authority MW : Megawatt

Details of Power Purchase Agreement

- Agreement details** : The Provincial Electricity Authority and 3 associated companies have agreed to trade electricity at a voltage of 22,000 volts according to the regulations for the purchase of electricity from a very small electricity supplier for generating electricity from renewable energy. The purchase point are as detailed above at the project location.
- Trading conditions** : The electricity supplier is required to sell electricity to the PEA within the date specified in the agreement. (The date set for selling electricity to the PEA)
- Agreement period** : 5 years from the agreement signing date and automatically renewed for 5 years each time. The agreement shall be effective until it is terminated.
- Termination of Agreement** : 1. The electricity supplier submits a written letter to the PEA expressing an intention to cancel electricity trading by terminating the agreement.
2. If the counterparty fails to comply with one of the agreements, the other party shall notify other party to take corrective action. If no corrective action is taken, the other party has the right to terminate the agreement.

5) Purchase Agreement from MEA of Subsidiaries

No.	Company	Party	Number of project (Project)	Total size of electricity distribution	Province where the project is located	Period of supplying electricity into the system	Operation
1.	Solar Energy Society Co., Ltd.	MEA	1	499.2 kW	Bangkok	2013	On schedule
2.	Siam Gunkul Solar Energy Co., Ltd.	MEA	1	873.6 kW	Bangkok	2013	On schedule
3.	Gunkul Solar Roof 1 Co., Ltd.	MEA	2	264.32 kW	Bangkok	2013	On schedule
4.	Gunkul Solar Roof 2 Co., Ltd.	MEA	1	538.56 kW	Chonburi	2014	On schedule

MEA : Metropolitan Electricity Authority kW : Kilowatt



Details of Power Purchase Agreement

- Agreement details** : The Metropolitan Electricity Authority and 4 subsidiaries, which are Solar Energy Society Co., Ltd., Siam Gunkul Solar Energy Co., Ltd., Gunkul Solar Roof 1 Co., Ltd., and Gunkul Solar Roof 2 Co., Ltd., have agreed to trade electricity at a voltage of 22 kilovolts according to the regulations for the purchase of electricity from a very small electricity supplier for generating electricity from renewable energy. The purchase point are as detailed above at the project location.
- Trading conditions** : The electricity supplier is required to sell electricity to the MEA within the date specified in the agreement. (The date set for selling electricity to the MEA)
- Agreement period** : 5 years from the agreement signing date and automatically renewed for 5 years each time. The agreement shall be effective until it is terminated.
- Termination of Agreement** : 1. The electricity supplier submits a written letter to the MEA expressing an intention to cancel electricity trading by terminating the agreement.
2. If the counterparty fails to comply with one of the agreements, the other party shall notify other party to take corrective action. If no corrective action is taken, the other party has the right to terminate the agreement.

6) Purchase Agreement from MEA of Associated Companies

No.	Company	Party	Number of project (Project)	Total size of electricity distribution	Province where the project is located	Period of supplying electricity into the system	Operation
1.	WHA Gunkul Green Solar Roof 1 Co., Ltd.	MEA	1	636.48 kW	Samut Prakan	2013	On schedule
2.	WHA Gunkul Green Solar Roof 3 Co., Ltd.	MEA	1	832.32 kW	Samut Prakan	2013	On schedule
3.	WHA Gunkul Green Solar Roof 6 Co., Ltd.	MEA	1	832.32 kW	Samut Prakan	2013	On schedule
4.	WHA Gunkul Green Solar Roof 17 Co., Ltd.	MEA	1	997.56 kW	Ayutthaya	2013	On schedule

MEA : Metropolitan Electricity Authority

kW : Kilowatt

Details of Power Purchase Agreement

- Agreement details** : The Metropolitan Electricity Authority and 4 associated companies have agreed to trade electricity at a voltage of 24 kilovolts according to the regulations for the purchase of electricity from a very small electricity supplier for generating electricity from renewable energy. The purchase point are as detailed above at the project location.
- Trading conditions** : The electricity supplier is required to sell electricity to the MEA within the date specified in the agreement. (The date set for selling electricity to the MEA)
- Agreement period** : 5 years from the agreement signing date and automatically renewed for 5 years each time. The agreement shall be effective until it is terminated.
- Termination of Agreement** : 1. The electricity supplier submits a written letter to the MEA expressing an intention to cancel electricity trading by terminating the agreement.
2. If the counterparty fails to comply with one of the agreements, the other party shall notify other party to take corrective action. If no corrective action is taken, the other party has the right to terminate the agreement.



7) Power Purchase Agreements from Overseas Electricity Authorities of Subsidiaries and Associated Companies

No.	Company	Party	Number of project (Project)	Total size of electricity distribution	Province where the project is located	Period of supplying electricity into the system	Operation
1.	Sendai Okura GD Daiichi Godo Kaisha, Japan	Tohoku	1	31.75 MW	Miyagi, Japan	2018	On schedule
2.	Kimitsu Mega Solar Godo Kaisha, Japan	TEPCO	1	33.5 MW	Chiba, Japan	2019	On schedule
3.	Tri Viet Tay Ninh Joint Stock Company, Vietnam	EVN	1	30.0 MW	Tay Ninh, Vietnam	2019	On schedule
4.	Bach Khoa A Chau Tay Ninh Joint Stock Company, Vietnam	EVN	1	30.0 MW	Tay Ninh, Vietnam	2019	On schedule
5.	Tan Chau Energy Joint Stock Company, Vietnam	EVN	1	50.0 MW	Tay Ninh, Vietnam	2020	On schedule
6.	Doan Son Thuy Investment Joint Stock Company, Vietnam	EVN	1	50.0 MW	Thua Thien Hue, Vietnam	2020	On schedule
7.	Kenyir Gunkul Solar Sdn. Bhd., Malaysia	TNB	1	21.0 MW	Terengganu, Malaysia	2020	On schedule

Tohoku : Tohoku Electric Power Co., Inc., Japan

MW : Megawatt

TEPCO : TEPCO Energy Partner Co., Inc., Japan

EVN : Vietnam Electricity Group

TNB : Tenaga Nasional Berhad

Details of Power Purchase Agreement

Agreement details : Tohoku Electric Power Co., Inc. and Sendai Okura GD Daiichi Godo Kaisha, including TEPCO Energy Partner Co., Inc. and Kimitsu Mega Solar Godo Kaisha, have agreed to trade electricity at a voltage of 66 kilovolts according to the regulations for the purchase of electricity from electricity supplier for generating electricity from renewable energy. The purchase point is as detailed above at the project location.

- Vietnam Electricity Group and 4 subsidiaries, which are Tri Viet Tay Ninh Joint Stock Company, Bach Khoa A Chau Tay Ninh Joint Stock Company, Tan Chau Energy Joint Stock Company, and Doan Son Thuy Investment Joint Stock Company, have agreed to trade electricity at a voltage of 110 kilovolts according to the regulations for the purchase of electricity from electricity supplier for generating electricity from renewable energy. The purchase point are as detailed above at the project location.
- Kenyir Gunkul Solar Sdn. Bhd. Has agreed to trade electricity at a voltage of 132 kilovolts according to the regulations for the purchase of electricity from electricity supplier for generating electricity from renewable energy. The purchase point are as detailed above at the project location.

Trading conditions : The electricity supplier is required to sell electricity to the electricity authority in overseas within the date specified in the agreement.

Agreement period : 20 years from the date of commencement of selling electricity. Except for Kenyir, the agreement period will be 21 years from the date of commencement of selling electricity.

Termination of Agreement : 20 years from the date of commencement of selling electricity. Except for Kenyir, the termination of agreement will be 21 years from the date of commencement of selling electricity.



8) Power Purchase Agreement from Private Agencies of Subsidiaries

No.	Company	Party	Number of project (Project)	Total size of electricity distribution	Province where the project is located	Period of supplying electricity into the system	Operation
1.	Solar Energy Society Co., Ltd.	Z. Kuroda (Thailand) Co., Ltd.	1	594 kW	Ayutthaya	2020	On schedule
2.	Solar Energy Society Co., Ltd.	CPF (Thailand) PCL	26	22,969.01 kW	Bangkok, Prachinburi, Saraburi, Nakhon Nayok, Nakhon Ratchasima, Chachoengsao, Samut Sakhon, Phra Nakhon Si Ayutthaya, Chonburi, Songkhla, Samut Sakhon, Rayong, Chumphon, Khon Kaen, Ratchaburi, Lamphun	2020 2021 2022	<ul style="list-style-type: none"> Year 2020-2021, totaling 13 projects, with total size of 11,868.78 MW : On schedule Year 2022, totaling 13 projects, with total size of 11,100.23 MW : In progress
3.	Solar Energy Society Co., Ltd.	Home Product Center PCL	18	8,286.3 kW	Bangkok, Pathum Thani, Saraburi, Chachoengsao, Ratchaburi, Prachin Buri, Nakhon Ratchasima, Phetchabun, Roi Et, Sakon Nakhon, Phuket, Chanthaburi, Loei, Chaiyaphum, Phitsanulok, Chiang Rai, Prachuap Khiri Khan, Kanchanaburi	2020 2021	On schedule
4.	Solar Energy Society Co., Ltd.	Golden Farm Korat PCL	1	362.88 kW	Nakhon Ratchasima	2020	On schedule
5.	Solar Energy Society Co., Ltd.	Murata Electronics (Thailand) Co., Ltd.	2	4,450.84 kW	Lamphun	2020 2021	On schedule
6.	Solar Energy Society Co., Ltd.	Biodegradable Packaging for Environment PCL	1	998.76 kW	Chai Nat	2021	On schedule
7.	Solar Energy Society Co., Ltd.	Huachiew Chalermprakiet University	1	829.44 kW	Samut Prakan	2022	In progress
8.	Solar Energy Society Co., Ltd.	C.J. Express Group Co., Ltd.	3	96.0 kW	Nakhon Pathom, Ratchaburi, Samut Sakhon	2021	On schedule
9.	Solar Energy Society Co., Ltd.	Robinson Department Store PCL	1	999.58 kW	Phetchaburi	2017	On schedule
10.	Solar Energy Society Co., Ltd.	Asia Golden Rice Co., Ltd.	1	1,506.6 kW	Chachoengsao	2021	In progress
11.	Solar Energy Society Co., Ltd.	MMP Corporation Co., Ltd.	1	1,863.08 kW	Nakhon Ratchasima	2021	In progress
12.	Solar Energy Society Co., Ltd.	Vatthanavej Co., Ltd.	1	482.4 kW	Chanthaburi	2020	On schedule
13.	Solar Energy Society Co., Ltd.	KCG Corporation PCL	1	1,107.48 kW	Samut Prakan	2023	In progress
14.	Solar Energy Society Co., Ltd.	C.P. Textile Co., Ltd.	1	4,550.00 kW	Nakhon Ratchasima	2023	In progress



No.	Company	Party	Number of project (Project)	Total size of electricity distribution	Province where the project is located	Period of supplying electricity into the system	Operation
15.	Solar Energy Society Co., Ltd.	Seafresh Industry PCL	1	2,053.90 kW	Chumphon	2023	In progress
16.	Solar Energy Society Co., Ltd.	Siam Retail Development Co., Ltd.	3	6,849.95 kW	Nakhon Ratchasima Bangkok	2023	In progress
17.	Solar Energy Society Co., Ltd.	Mahachai Foods Co., Ltd.	1	808.92 kW	Samut Sakhon	2023	In progress
18.	Solar Energy Society Co., Ltd.	MBK PCL	4	937.90 kW	Bangkok Pathum Thani	2022 2023	<ul style="list-style-type: none"> Year 2022, totaling 3 projects, with total size of 459.91 kW : On schedule Year 2023, totaling 1 project, with total size of 477.99 kW : In progress
19.	Solar Energy Society Co., Ltd.	Sirivatana Interprint PCL	2	2,540.16 kW	Chachoengsao	2022 2023	<ul style="list-style-type: none"> Year 2022, totaling 1 project, with total size of 997.92 kW : On schedule Year 2023, totaling 1 project, with total size of 1,542.24 kW : In progress
20.	Solar Energy Society Co., Ltd.	Suksawad Converting Center Co., Ltd.	1	999.22 kW	Samut Sakhon	2023	In progress
21.	Solar Energy Society Co., Ltd.	Thai NJR Co., Ltd.	1	1,524.42 kW	Lamphun	2023	In progress
22.	Solar Energy Society Co., Ltd.	Tanaka Precision (Thailand) Co., Ltd.	1	999.54 kW	Lamphun	2023	In progress
23.	Solar Energy Society Co., Ltd.	Sammitr Autopart Co., Ltd.	1	936.36 kW	Samut Sakhon	2023	In progress
24.	Solar Energy Society Co., Ltd.	Siam Piwat Simon Co., Ltd.	1	2,912.22 kW	Samut Prakan	2023	In progress
25.	Solar Energy Society Co., Ltd.	LH Mall & Hotel Co., Ltd.	2	1,821.60 kW	Chonburi Bangkok	2023	In progress
26.	Solar Energy Society Co., Ltd.	BBM Interfood Co., Ltd.	2	852.50 kW	Nakhon Ratchasima	2023	In progress

kW : Kilowatt



Details of Power Purchase Agreement (PPA)

- Agreement period** :
- For Z. Kuroda (Thailand) Co., Ltd., Suksawad Converting Center Co., Ltd., and Thai NJR Co., Ltd., the agreement period is 10 years from the date of supplying electricity into the system and the agreement shall be effective until it is terminated.
 - For CPF (Thailand) PCL, Home Product Center PCL, Golden Farm Korat PCL, Murata Electronics (Thailand) Co., Ltd., Biodegradable Packaging for Environment PCL, Huachiew Chalermprakiet University, C.J. Express Group Co., Ltd., C.P. Textile Co., Ltd., Seafresh Industry PCL, Mahachai Foods Co., Ltd., Sirivatana Interprint PCL, Tanaka Precision (Thailand) Co., Ltd., LH Mall & Hotel Co., Ltd., BBM Interfood Co., Ltd., and Siam Retail Development Co., Ltd., the agreement period is 15 years from the date of supplying electricity into the system and the agreement shall be effective until it is terminated.
 - For Siam Piwat Simon Co., Ltd., the agreement period is 16 years 6 months from the date of supplying electricity into the system and the agreement shall be effective until it is terminated.
 - For Robinson Department Store PCL, Asia Golden Rice Co., Ltd., MMP Corporation Co., Ltd., and KCG Corporation PCL, the agreement period is 20 years from the date of supplying electricity into the system and the agreement shall be effective until it is terminated.
 - For Vatthanavej Co., Ltd., the agreement period is 24 years from the date of supplying electricity into the system and the agreement shall be effective until it is terminated.
 - For MBK PCL and Sammitr Autopart Co., Ltd., the agreement period is 25 years from the date of supplying electricity into the system and the agreement shall be effective until it is terminated.
- Termination of Agreement** :
1. The electricity supplier submits a written letter to the MEA expressing an intention to cancel electricity trading by terminating the agreement.
 2. If the counterparty fails to comply with one of the agreements, the other party shall notify other party to take corrective action. If no corrective action is taken, the other party has the right to terminate the agreement.



Attachment 5

Corporate Governance Policies and Business Ethics

Corporate Governance Policies and Business Ethics as well as charters and other policies that have been disclosed on the Company website are the following items :

Charters (<https://www.gunkul.com/en/corporate-governance/charters>)

1. Board of Directors Charter
2. Audit Committee Charter
3. Risk Management Committee Charter
4. Nomination and Remuneration Committee Charter
5. Good Corporate Governance and Sustainable Development Committee Charter
6. Executive Committee Charter
7. Company Secretary Charter
8. Internal Audit Charter

Policies (<https://www.gunkul.com/en/corporate-governance/policy-and-procedures>)

1. Good Corporate Governance Policy
2. Business Ethics Policy
3. Anti-Corruption and Whistle Blowing Policy
4. Role, Authority, Duty and Responsibility of the Chairman and Chief Executive Officer Policy
5. Transaction Measures with the Related and Non-Related Parties Policy
6. Enterprise Risk Management Policy
7. Nomination and Appointment of Directors and Executives Policy
8. Determination on the Remuneration of All Committees Policy
9. Succession Plan Policy
10. Dividend Payment Policy

11. Investor Relations Ethics Policy
12. Remuneration and Welfare for Executives and Employees Policy
13. Human Resource Management and Development Policy
14. Sustainable Development Policy
15. Corporate Social Responsibility Policy
16. Human Rights Policy
17. Environment and Climate Change Management Policy
18. Procurement Policy
19. Supplier Code of Conduct
20. Tax Management Policy

Others

1. Vision, Missions and Corporate Culture
(<https://www.gunkul.com/storage/download/cg/2023/20230321-gunkul-policy-vision-mission-en.pdf>)
2. Member of Thai Private Sector Collective Action Against Corruption (CAC)
(<https://www.gunkul.com/en/corporate-governance/member-of-thai-private-sector-collective-action-against-corruption>)
3. Privacy Notice
(<https://www.gunkul.com/en/personal-data-protection/privacy-notice>)
4. Whistle Blowing
(<https://www.gunkul.com/en/corporate-governance/whistle-blowing-form>)

The Company regularly reviews the policies and charters at least once a year



Attachment 6

Report of the Audit Committee

The Audit Committee consists of independent directors who are qualified and knowledgeable, competent and experienced in accounting, finance, legal, management and energy business. The qualifications of those independent directors are in accordance with the requirements of the Securities and Exchange Commission and the Stock Exchange of Thailand. The Audit Committee has 3 members namely, Dr. Chongrak Rarueysong as the Chairman of the Audit Committee, Assoc.Prof. Dr. Panarat Panmanee and Mr. Tarakorn Angpubate as Members of the Audit Committee.

The Audit Committee has performed their duties and responsibilities that assigned by the Board of Directors in full compliance with the Audit Committee Charter (Details are available on the Company's website at (<https://www.gunkul.com/storage/download/cg/2023/20230321-gunkul-charter-audit-en.pdf>) as well as in accordance with the requirements and best practices for the Audit Committee as specified by the Stock Exchange of Thailand. The Audit Committee also reported the performance to the Board of Directors on a regular basis.

In the year 2023, the Audit Committee held 5 meetings. All members of the Audit Committee attended all meetings every time to review financial reports, related parties transaction (RPT) or reports that may have conflicts of interest, internal control system, fraud reports and other matters. In addition, the financial and accounting management, Auditor and Head of Internal Audit as well as other executives were invited to attend the meetings in order to provide information, acquire comments and recommendations which were benefit to the Company's operation. Moreover, the Audit Committee arranged 1 meeting between the Audit Committee and the Auditor in an absence of the management. The results of each meeting were presented to the Board of Directors of the Company. During past year, the Audit Committee carried out important activities, which could be summarized as follows;

1. **Reviewed the financial statements**, the Audit Committee reviewed the Quarterly and Yearly Financial Statements, as well as related financial reports by cooperating with the Certified Public Accountant and the Company's management on material issues, review the appropriateness of important accounting policies, adjustments of material accounting items, accounting estimation that affect financial information and financial reports, Key Audit Matters (KAM), using of discretion in the preparation of financial statements, including the independence of the auditor. to ensure that the Company's financial reports are prepared accurately in accordance with Thai Financial Reporting Standards and in line with International Financial Reporting Standards, with adequate information

disclosure, completely and reliable, complies with applicable laws and regulations, before the financial statements were submitted to the Board of Directors or shareholders for approval.

2. **Reviewed the adequacy and appropriateness of the internal control system**, the Audit Committee reviewed the adequacy, appropriateness and effectiveness of the internal control system of the Company and its subsidiaries by appraised from the reports of the Company's internal audit and the Auditor. This included the evaluation of the internal control system in accordance with the guidelines set forth by the Securities and Exchange Commission. The Audit Committee was of the view that the Company has an appropriate and adequate internal control system and reasonably assure that the Company has sufficient and effective internal control system.
3. **Supervised of internal audit**, the Audit Committee supervised the Internal Audit Department to have independence as specified in the Internal Audit charter, in order to ensure that the internal audit practices have efficiency and effectiveness, accurate and comply with the rules and regulations of the Securities and Exchange Commission and international standards. The Audit Committee reviewed the suitability and endorsed the annual internal audit plan, including reviewing the annual internal audit plan to ensure that the audit plan has been revised in accordance with the changing situation with efficiency and effectiveness, by incorporated a risk-based approach, considered and reviewed the internal audit report of the Internal Audit Department, together with providing comments and recommendations for the internal control improvement, also continuously follow up on the implementation of the suggestions in the audit reports of internal auditors and auditors in order to acknowledge the cause and suggest ways to prevent damage that may occur to the management, by following up and reviewing to ensure that the management has followed the recommendations to the internal control system in order to prevent recurring incidents.





4. **Reviewed the risk management**, the Audit Committee reviewed the risk management procedure in order to ensure that the risk management procedure was appropriate and effective, resulting in reduction of the associated risks to an acceptable level. Since the Company has given priority to develop the risk management procedure, the Board of Directors also appointed the Risk Management Committee to establish the risk management framework and policies to be effectively implemented throughout the Company Group and its subsidiaries in accordance with the Company's goals.
5. **Reviewed related party transactions that may have conflicts of interest**, the Audit Committee has given great importance to the consideration of related party transactions and transactions that may have conflicts of interest in accordance with the laws and regulations of the Stock Exchange of Thailand on a quarterly basis by assigning the Internal Audit Department to monitor and review the preliminary accuracy and forward to the Auditor to review such transactions annually. The Audit Committee is of the opinion that the management has decided and considered the connected transactions for the benefit of the Company, at an arm's length basis and performed in accordance with general commercial terms, reasonable, and according to the normal business of the Company for the greatest benefit to the Company, without beneficial to any party. Moreover, the related party transactions were disclosed following the process guideline and relevant law and regulations.
6. **Ensured the compliance with the Securities and Exchange Act**, the Audit Committee reviewed the operations and directed the Company to perform various transactions in accordance with the Securities and Exchange Act, notifications and regulations of the Stock Exchange of Thailand as well as other specific laws that relating to the Company's business. In addition, the Audit Committee urged the Company to follow up on the laws which under hearing process and may have an impact on the Company in order to prepare before the announcement. The Audit Committee also approved the establishment of the Compliance Unit under the Internal Audit Department to supervise and monitor operations in accordance with all relevant laws, in order to comply with the principles of good corporate governance.
7. **Encouraged good corporate governance and considered complaints about fraud or corruption**, the Audit Committee emphasized the Company's operations to adhere with good corporate governance practice, the system for receiving complaints, including providing channels for employees, shareholders and stakeholders to be able to conveniently contact the Audit Committee directly in order to be able to make the complaints, illegal or business ethical misconduct, or inquiries in financial reports or internal control systems to the Audit Committee, via email, website, postal and whistleblower box as well as having measures to protect the informant and to be treated as confidential.
8. **Evaluated Performance**, the Audit Committee evaluated its performance by group self-assessment

in accordance with the guidelines of the Stock Exchange of Thailand. The assessment results show that the Audit Committee has performed its duties and responsibilities as specified in the Audit Committee Charter, by adhering to the principles of accuracy, prudence, transparency and sufficient independence, with no restriction on access to information from executives, employees and related parties; as well as, giving constructive opinions and suggestions for the benefit of all stakeholders equally.

9. **Reviewed the Audit Committee Charter**, the Audit Committee has reviewed the appropriateness of the Audit Committee Charter annually in line with best practices and regulations of the Capital Market Supervisory Board and the Stock Exchange of Thailand, including international practices.
10. **Considered, selected, proposed the appointment and determined the remuneration of the Auditor of the Company**, the Audit Committee considered the qualification of the Auditors by taking into account the independency, business knowledge including audit fees. Hence, the Audit Committee proposed the Board of Directors to consider appointing an Auditor approved by the SEC, namely Mr. Waiyawut Kosamarnchaiyakij, Certified Public Accountant No. 6333 and/or Ms. Dussanee Yimsuwan, Certified Public Accountant No. 10235, and/or Ms. Sophit Prompol, Certified Public Accountant No. 10042 from KPMG Phoomchai Audit Ltd. to be the Auditor of the Company and its subsidiaries for the year 2023 and endorsed, in order to propose to the 2023 Annual General Meeting of for approval.

In conclusion, the Audit Committee was of the opinion that the Company provided accurate, complete and reliable financial reports, with an adequate internal control system and good corporate governance practices that complying with the Securities and Exchange Act, notifications and regulations of the Stock Exchange of Thailand and other relevant laws. The information on related party transactions or transactions that may have conflicts of interest were fully disclosed.

(Dr. Chongrak Rarueysong)
Chairman of the Audit Committee
February 27, 2023

Attachment 7

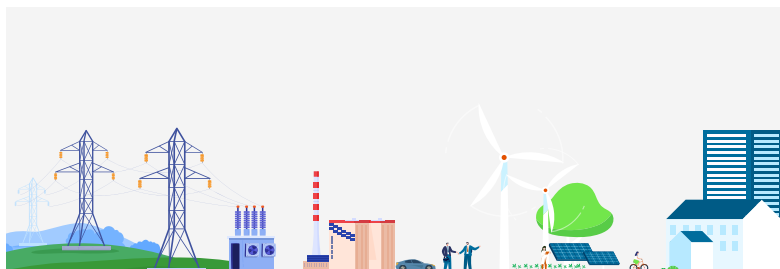
Sustainability Report

Details of the Sustainability Report is disclosed in the Company's Website.

<https://www.gunkul.com/en/investor-relations/download/sustainability-report>



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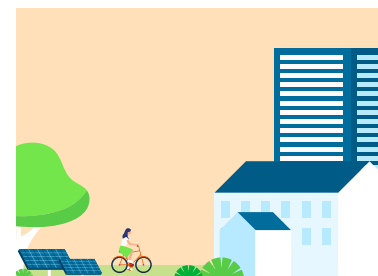
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(Dr. Somboon Aueatchasai)
Chief Executive Officer

Message from the Chief Executive Officer

Gunkul Engineering Public Company Limited is committed to sustainable business development with social responsibility under the promise of “not only the energy, we care”. We do not only care about clean energy innovation but also care about the existence of the planet and the quality of life by creating shared value with all groups of stakeholders covering economic, social and environmental dimensions, along with good corporate governance in accordance with the sustainable development goals and prepare to move towards a Net Zero society, by expanding the clean energy technology portfolio, penetrating the energy storage system business, creating business growth while creating stability for the smart grid system, supporting the transition for a growing business, a livable society and a sustainable environment.

For Growing Business,

the Company has driven the business to grow sustainably under good corporate governance for more than 41 years in the business of importing and distributing equipment for electrical systems and developed into the clean energy business as the first in Thailand until becoming a leader in renewable energy business, equipment and integrated electrical system, with modern technology and innovation, develops the energy business to fully step into the era of energy technology, creates innovation develop new solutions for consumers of all levels and groups, including supports all B2G, B2B, and B2C customers. In 2022, the Company moves towards a low-carbon economy, which the Company understands that moving towards a low-carbon economy along with creating sustainable business growth cannot be done alone. Therefore, jointly invested with strong and potential

business partners in order to move forward together to develop renewable energy projects to reach 1,000 megawatts as planned within 5 years, to jointly develop and promote solar energy as part of improving the quality of life and living and to jointly in installing solar roofs for houses in various projects which set a goal to reduce household greenhouse gas emissions by more than 100,000 tons of carbon dioxide equivalent within 5 years to create energy stability and develop strong infrastructure. In addition, the Company has also extended the full-service medical grade hemp and cannabis business, joining with partners in trading products related to hemp and cannabis plants and expanding these product market into foreign markets, to build business strength through the health benefits of hemp and cannabis plants and grow sustainably together.



For a Livable Society,

the Company always believes that energy is a fundamental right of every human being (Energy is a Human Right), thus creating opportunities and supporting access to electricity and renewable energy, to allow everyone in society to have equal access and aim to create value together with all stakeholders, covering both internal and external society with respect for value and equality, according to human rights principles. Starting from the internal society, by taking care of employees which is considered as the heart of the organization's sustainable success. Therefore, the Company has developed activities and projects to develop and create the well-being of employees, as well as giving importance to building a corporate culture to lay the foundation of a stable and sustainable organization, raising awareness for all employees to be responsible, putting into action to reduce

negative impacts and create a positive impact on society outside. As well as, promoting coexistence with the community by creating friendship and helping each other as **"Good Neighbor"**, to develop and strengthen the community, create a learning society, promote a good quality of life, support activities and continuously, create participation with the community and society at both the local and national levels. As a result of developing and operating business under the principle of respecting human rights, the Company received the 2022 Human Rights Model Organization Award from the Department of Rights and Liberties Protection, Ministry of Justice. This reflects the commitment of developing and conducting business with responsibility, to create a livable society for everyone's good quality of life.

For a Sustainable Environment,

during challenges from issues and impacts on the environment and energy transition towards environmentally friendly energy use, resulting in the current environmental issue comes to take part and influence every business, and many businesses have begun to adjust their production within the organization, with consideration to drive business growth with social and environmental responsibility and set goals to reduce greenhouse gas emissions even more. Which the energy sector must be an important force in reducing greenhouse gas emissions to net zero emissions. The Company is committed to continuous development as part of a solid starting point for sustainable change and reduction of environmental impact by supporting businesses and citizens to access clean energy. In the past year, the Company has formulated a strategy of **"Create"** **"Contribute"** and **"Share"** in accordance with the country's goals in management, to reduce greenhouse gas problems through **"Creating"** by developing renewable energy projects which contributes to the replacement of electricity generation from fossil fuels. **"Contributing"** by taking part in helping Thailand achieve its climate change goals, including carbon neutral goals in 2050, and a goal of net zero greenhouse gas emissions

by 2065 through the development of renewable energy projects and reforestation projects to absorb carbon dioxide, by **"Sharing"** carbon assets that arising from its projects, such as renewable energy and CO2 reforestation projects, to agencies or companies that want to offset their own greenhouse gas emissions. The implementation of this strategy is part of the Company's efforts and determination to be a part in solving problems for all sectors to reduce greenhouse gas emissions and to reduce the impact of climate change in a sustainable way.

On behalf of the Board of Directors, management, and employees of Gunkul Engineering Public Company Limited, we would like to thank our shareholders, customers, business partners, financial institution, government agency, state enterprise and all stakeholders who play an important role in supporting and building the success of the Company's sustainability operations. The Company will adhere to the principles of good governance by conducting business with responsibility and determining to drive business to grow and achieve sustainable development goals.



Business Overview

Vision

To be a leader in integrated energy business covering renewable energy, electrical equipment, and power system, with cutting-edge technology and innovation for sustainable infrastructure development, and to be a global player in cannabis business with desire to improve quality of life and good wellness.



Mission



Renewable Energy

Establish renewable energy power plants with high standards and efficiency while prioritizing society, local community and the environment.



Returns

Balance and maximize the shareholders and other stakeholders' returns.



People Management

Enhance employees' capability and broaden their knowledge and skills to extensive level in order to be in line with the Company's core competencies. All employees will be treated thoroughly and fairly, with human rights as a cornerstone.



Management Framework

Business structuring and management in accordance with good corporate governance principles, while maintaining a sense of responsibility for the economy, society, and environment.



Sales

To procure and deliver high quality power systems, energy saving products, cannabis products, distribution channels and render the services to fulfill customers' demand.



Cannabis

Produce hemp/cannabis in accordance with GAP and GMP standards so that it can be utilized in a wide range of products that improve quality of life, allowing customers to benefit the most.



Technology

To develop the IT system and adopt the new technology and innovation to improve business efficiency in management, production, and services as well as develop new products and services to fulfill all demands of business partners.

Corporate Culture

We **GROWTH** together



GUNKUL Business

Gunkul Engineering Public Company Limited (the “Company”) engages over all features of renewable energy, including equipment and electrical systems, and has progressed into the cannabis business by using modern technology and innovation to improve people’s quality of life, health, and sustainable growth infrastructure.

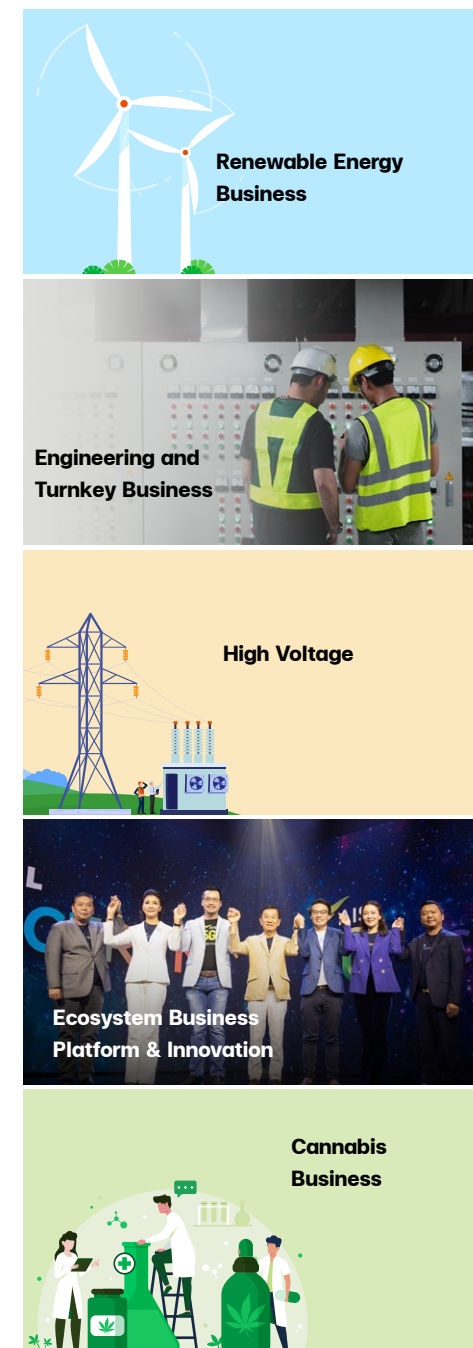
The Company was established in 1982 from the business of importing and distributing equipment for electrical systems and other related equipment to various public and private agencies. Afterwards, the Company had expanded the business of equipment for the electrical system fully covering production, procurement and distribution as well as starting to expand into other businesses, such as engineering, procurement, construction (EPC) services for electric station, electric system and renewable energy power plant and the maintenance of power plants of both public and private agencies. The Company was foreseeing the trend of increasing demand for electricity from renewable energy. Therefore, the Company had expanded its business scope into renewable energy business. The Company’s first solar power plant project started the commercial operation in 2011. The Company focused on expanding its energy business based on sustainable business

practices that focus on the environment, society, and stakeholders, under the good corporate governance principles and in line with the power generation development plan and the renewable and alternative energy development plan. Due to the global trend of moving towards a Net Zero Carbon society, the Company aims to improve both quality, standards, and safety to become one of the leaders in renewable energy, innovation and energy digital platform.

Throughout the Company’s 41-year history, the Company was transformed to a public company limited in 2009 and its securities were listed for trading on the Stock Exchange of Thailand (SET) on October 19, 2010 under the name **GUNKUL**, resulting in the Company’s significant growth. In addition, with a strong financial position experience and expertise of the Company and collaboration with leading partners, the Company never stop to seek business opportunities to increase operational potential and increase business value for stable and sustainable returns. The Company has continuously expanded its business to cover the needs of consumers. For the renewable energy business, it has been extended to wind power plants. Investments have been expanded to foreign countries such as Japan, Malaysia and Vietnam and expanding the customer base to the private sector (Private PPA). In addition, digital disruption is an important factors driving the company to develop innovations and a comprehensive digital energy platform in order to make a difference in the

development of the country’s infrastructure and energy sustainability. Recently, in 2021, the Company began expanding its business into the hemp and cannabis business which is a business opportunity from new economic crops to create added value and prepare for the New S-Curve of the business by using the Company’s former potential.

The Company plans to operate a comprehensive hemp and cannabis business for the health of Thai people which is fundamental to life. The Company plans to grow hemp in the greenhouse system for the highest level of quality control which is expected to be able to produce and gradually recognize income from 2022 onwards. In this regard, the Company commits to conduct business along with maintaining the balance of economy, society and environment driving the organization towards sustainable development and have a goal of operating so that all stakeholders can access and understand energy consumption providing an understanding that energy is tangible and able to utilize energy to its fullest potential with the concept of **“not only the energy, we care”** which operates 5 main business groups as follows:



Sustainability Awards and Achievement



2022 Thailand Sustainability Investment (THSI)

Listed in 2022 Thailand Sustainability Investment by the Stock Exchange of Thailand for the second consecutive year from sustainability assessment covering economic, social, and environmental dimensions. This demonstrates that the Company has conducted an organizational development towards sustainability with the emphasis on maintaining a balance between environmental preservation, social responsibility, and operational management in compliant with corporate governance principles (Environmental, Social and Governance: ESG)

Sustainability Disclosure Recognition for the year 2022

Received Sustainability Disclosure Recognition for the year 2022 for outstanding efforts towards sustainability disclosure and reporting on SDG target from Thaipat Institute.



The Company has received an "Excellent" rating on Corporate Governance for the year 2022

Assessed by Thai Institute of Directors Association (Thai IOD) for Corporate Governance Report (CGR) for the year 2022 to be a listed company with an "Excellent" rating; an average score of 97 percent and the scores in all categories are rated excellent for the sixth consecutive year.



The 2022 Role Model Organization Award in Human Rights

Received the 2022 Role Model Organization Award in Human Rights from the Department of Rights and Liberties Protection, Ministry of Justice. Accordingly, the Company becomes a role model in operating business with respect for human rights, which Gunkul Engineering PCL has awarded good for large business sector category and G.K. Assembly Co., Ltd. has received consolation award for the medium-sized business sector.



Outstanding Enterprise Award in Labor Relations and Labor Welfare for the year 2022

The Company and subsidiaries, consisting of Gunkul Engineering PCL, G.K. Assembly Co., Ltd., Gunkul Power Development Co., Ltd. And Future Electrical Control Co., Ltd. have received Outstanding Enterprise in labor relations and labor welfare for the year 2022 from the Department of Labor Protection and Welfare, Ministry of Labor for the second consecutive year.



ASEAN Asset Class Award



The Company received ASEAN Asset Class Publicly Listed Companies from evaluation of the 2021 ASEAN Corporate Governance Scorecard, which is an award given to companies that score 97.50 or more. There were 42 Thai listed companies receiving this award from a total of 135 companies, reflecting sustainable business operations under corporate governance principles that is in line with international standards.



Best Emerging Women COO in Sustainable Energy

GUNKUL's Chief Operating Officer - Strategic Investment & Sustainable Energy Business, Ms. Naruechon Dhumrongpiyawut, has been named by The Global Economics to be one of the Best Emerging Women COOs in Sustainable Energy for the year 2022.



The 2022 Role Model Sustainable Organization in Thai Capital Market, categorized in the Empowerment of Persons with Disabilities

Received the "Rising Star" award for the 2022 Role Model Sustainable Organization in Thai Capital Market Award, categorized in the empowerment of persons with disabilities, from the Securities and Exchange Commission in cooperation with the Ministry of Labor, the Department of Skill Development, the Department of Employment, the Department for Empowerment of Persons with disabilities, the Thai Listed Companies Association, and Disabilities Thailand.

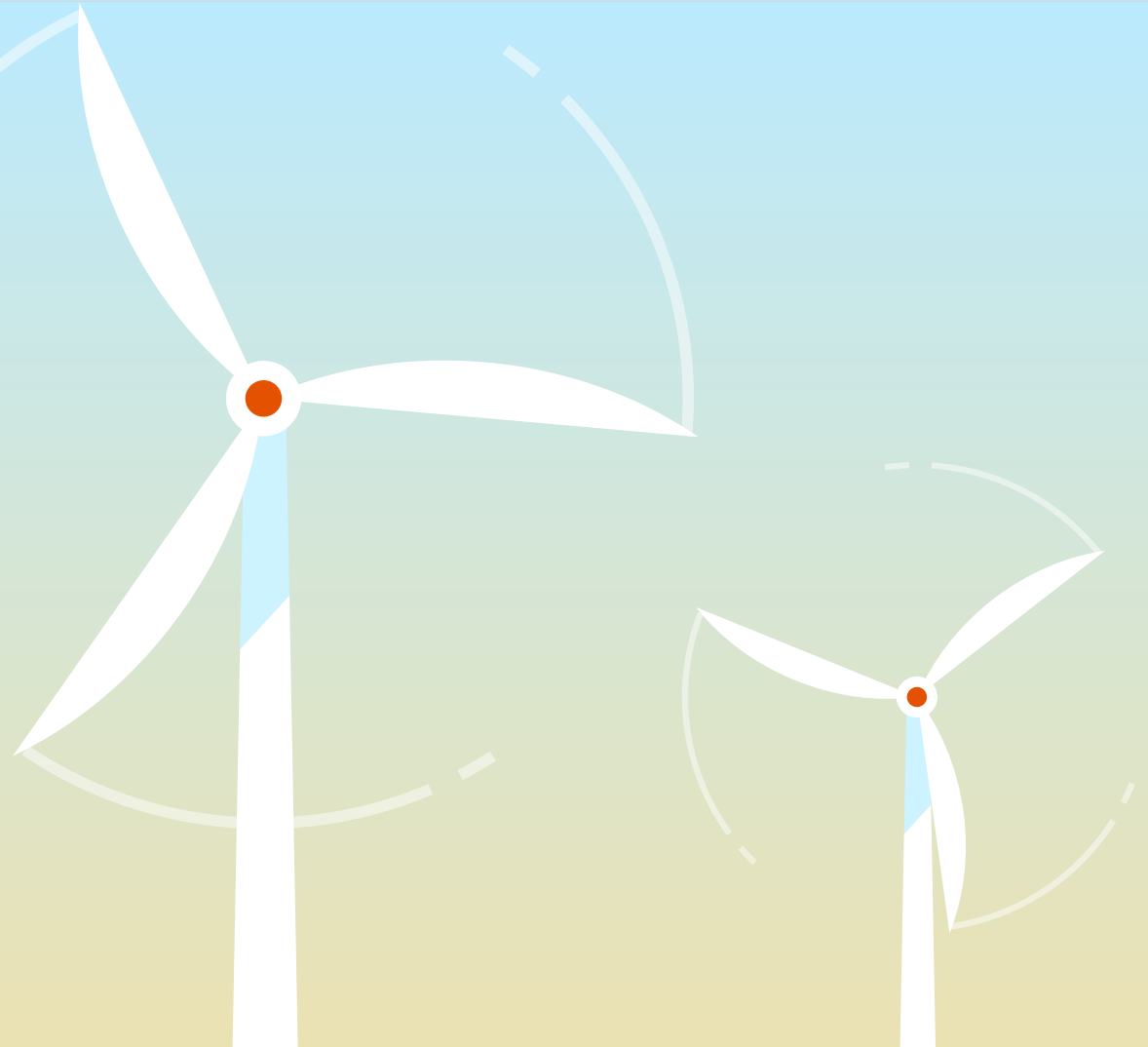
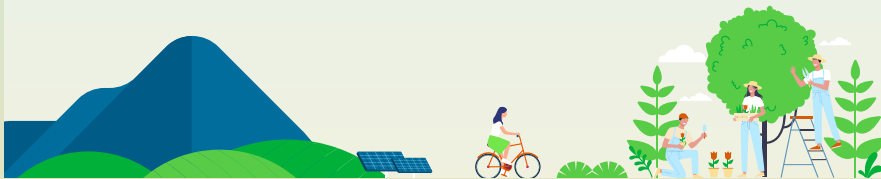


Part 1 Sustainability Management

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Sustainable Development Policy

The Company believes that sustainable development and growth with social

responsibility by concerning benefits of all stakeholders in business value chain are the way to create long-term value for organization. Accordingly, the Company places importance on sustainable business operation under corporate governance framework, social and environmental responsibility, and adheres to operating business sustainably, as aiming to be a leader in integrated renewable energy and electrical system business, with the use of modern technology and innovation to develop and strengthen the infrastructure, as well as, to be a leader in hemp and cannabis business in international markets to enhance quality of life and good health under the Company's commitment; **"not only the energy, we care."** By striving to be an organization that operates responsibly, builds reliability with stakeholders, creates stability in integrated renewable energy for the country in the future, the Company has formulated Sustainable Development policy and communicated it to employees at all departments in organization, as well as disclosed it on the Company's website to use as operational guidelines, which guidelines and strategies in sustainability management are reviewed continually, as follows :



Sustainable
Development Policy





We care Business

The Company develops an integrated business that fulfill the shareholders' needs in conjunction with operating business responsibly under good corporate governance principles. In addition, the Company continually developing technology and creating innovations to improve operations and deliver the best products and services to consumers by considering **"Quality, Standards, Safety, and Environment-Friendly."** This is to build stakeholders' confidence and ensure the country's stability of integrated renewable energy.



We care People

The Company develops its personnel to be competent at work, talented, possess interpersonal skills and excellent leadership as we believe that personnel are valuable resources and an important force in driving organization to achieve sustainably. Accordingly, we concentrate on human resources development through a working system that emphasizes participation, fostering a **"culture of teamwork and unity"**, as well as, promoting skills development and learning throughout the working period. This is to encourage personnel to be skilled and competent to work in all aspects, as well as, to foster a working culture within organization by adhering to good governance principles, equitability according to human rights, and occupational health and safety, in order to lead the organization to excellence.



We care Social

The Company creates opportunities for a sustainable society and environment that is community-friendly by encouraging community co-existence and providing mutual assistance as **"Good neighbors."** This is to focus on natural resources management for utmost benefits, development of technology and innovation to create society and environment, management of impact that may occur from the Company's operation, as well as, placing importance on sharing knowledge and experiences among individuals, organizations, communities, and stakeholders, and supporting access to electrical and renewable energy. As the Company believes that electricity and energy are considered as fundamental factor that everyone should have equal access.

In addition, the Company has communicated and thoroughly disseminated its Sustainable Development policy and operating framework to both internal and external stakeholders to create a responsible business culture among executives and personnel at all level, including all group of stakeholders, and for them to understand their roles and responsibilities and able to implement according to policy. Especially in today's world that is volatile and rapidly changing, including impact from climate change that is becoming more severe day by day, which require adaptability skills to build resilience against changes in order to manage risk, to add value to business together with mitigating impacts towards social and environment. **The Company aims to support energy transition towards Net Zero GHG Emissions within year 2065**, which is considered a crucial test in strategic planning and building a development foundation for all of the Company's activities, in order to create a long-term sustainable value for stakeholders.



Sustainable Development Goals and Strategies



We care Business

Develop a worthwhile integrated business that satisfies stakeholders



- Follow the good corporate governance principles and business ethics.
- Manage risks to reduce impact, expand business, and strive to seek for opportunities to increase business value for stable and sustainable return for all group of stakeholders
- Commit to develop products and services that meet customers' needs and develop a sustainable quality of life with the use of cutting-edge technology and innovation.
- Develop, improves, procure a complete range of electrical system products.
- Build on capital strength by expanding energy business, both domestically and internationally.
- Procure and develop cutting-edge energy technology and innovation in respond to the use of renewable energy thoroughly and efficiently.
- Expand business line and increase investment in future energy business.
- Expand construction business for both electrical systems and related equipment, including the above ground and underground transmission lines, as well as taking on more submarine cable work to generate income for sustainable growth.

We care People

Develop people to be competent at work, talented, possess good interpersonal skills and excellent leadership



- Create and strengthen "GROWTH" culture to support the strategies for achieving corporate goals.
- Enhance supervisors' skill to portray key roles in driving and fostering appropriate behavior for subordinates to be "competent at work, themselves, people, and team management".
- Develop joint behavior of personnel to adapt to a new organizational culture that focuses on teamwork and lead the organization to excellence.
- Improve human resources management system to facilitate the creation of good behavior for personnel.
- Support personnel to achieve career advancement.
- Adjust the way of working in unusual conditions or situations to ensure that personnel of organization can work safely and efficiently.
- Create an environment, occupational health and safety in the workplace.
- Treat workers with equality, fairness and respect to human rights.

We care Social

Create opportunities for a harmonious society and environment for sustainable communities



- Support the energy transition towards net zero emission with clean energy technology and innovation.
- Balance business growth coupled with creation of alternative energy that are environmentally friendly.
- Support access to electricity and renewable energy, which is one of the fundamental rights everyone should have equitable access.
- Develop the renewable energy power plants to become learning centers of communities and societies.
- Engage employees with community networks to support community activities, in order to establish a strong society and balanced coexistence.
- Promote the creation of career in communities surrounding the Company's renewable energy power plants to enhance quality of life of people in communities.
- Implement sustainable development management by using resources in production efficiently in line with circular economy, and strive to reduce amount of waste in landfills to zero.
- Develop and support the medical benefits of hemp and cannabis to enhance quality of life and good health for people in society.



Sustainable Development Goals : SDGs

The Company is aware of driving business responsibly in accordance with Sustainable Development Goals (SDGs) of the United Nation, therefore, is committed to operate business towards achieving sustainable development, which has 3 important component : economic growth, social inclusion, and environmental protection. The Company has defined sustainable development goals that are in line with business strategies, responds to organizational goals and stakeholders' expectations in a balanced manner. Currently, the Company supports totaling 11 sustainable development goals, the details are summarized as follows :



Promote healthy lives and well-being for all

The Company places importance on health and safety of personnel in suitable working environment and well-being of personnel. Therefore, management guidelines have been established to promote safety in workplace and well-being of employees, including all stakeholders whether it is contractors, partners or nearby communities in order to be safe and able to work efficiently with zero accident-at-work (3.6). Moreover, the Company also focuses on developing products and services to maintain the health of modern people by using natural products such as hemp and cannabis with quality standards that are safe and effective (3.8).



Create equitable and inclusive education, and promote lifelong learning education

The Company recognizes the importance of education, therefore supports employees and employees' families to gain equal access to education through annual scholarship sponsorship (4.1, 4.2, 4.3). Moreover, educational networks covering various educational institutions have been established in order to collaboratively enhance students' vocational skills by providing internship opportunities to support real-world experience that can be used to develop, refine, utilize in future job sustainably. This increases number of young people and adults with essential skills, including technical and professional skills, for employment and having a good job (4.4)



Promote and create gender equality

The Company works towards and create gender equality through employment without discrimination (5.1) by stipulating that all business activities must be free from actions that cause unfair discrimination, and promote respect towards human dignity. As well as, providing employees' rights for potential development and have equitable access to knowledge (5.5).



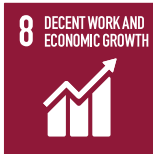
Sustainable management of water and sanitation for all

The Company recognizes that water is an important natural source, therefore, the Company is committed to internal management of water by providing a complete water management process in the production process to support water quality improvement and pollution reduction, as well as providing sustainable safe recycling and reuse (6.3). This is to enable the organization to use water resources efficiently for maximum benefit along with sustainable water conservation and restoration (6.4).



Providing modern, sustainable, stable and affordable energy for everyone

The Company engages in clean energy business, therefore, is committed to invest in business development according to its vision in making sustainable energy accessible to everyone efficiently (7.1). Moreover, the Company also provide new technologies to use in the production process consistently (7.3) to increase the proportion of renewable energy usage (7.2).



Promote sustained, inclusive and sustainable economic growth, and decent employment

The Company places importance on economic growth that is in line with stakeholders' expectations. Therefore, the Company is committed to be an employer that respect human rights and responsible for all stakeholders, whether it is to support the employment of employees or people with disabilities in the areas surrounding the business to create a career for the community, to the selection of law-abiding contractors, prohibit child labor, and promote a safe and equitable working environment. (8.5, 8.7, 8.8).



Develop resilient infrastructure, promote adaptation as sustainable industrialization and support innovation

The Company engages in clean energy and technologies-related business, including environmental innovations. Therefore, the Company is committed to invest in and assist the development of technology that is environmentally friendly to promote sustainability in a variety of industries and support the development of clean energy infrastructure. Moreover, the Company also support educational institutions in the creation of long-term innovation. (9.4, 9.5).



Ensure sustainable consumption plan and production

The Company operates business that engage in clean energy, both solar and wind energy. Therefore, it maintains operation under sustainable consumption by making the most efficient use of available resources (12.2).



Implement urgent measures to combat climate change

The Company realizes the significance of global warming that causing rapid climate change. Therefore, is committed to provide a Greenhouse Gas Inventory Report, which collects the organization's greenhouse gas emission, both directly and indirectly. The result would be adapted and used to manage reduction of the organization's greenhouse gas emission according to Thailand's goals at COPS26 meeting. (13.2, 13.3).



Protect, restore and promote sustainable use of terrestrial ecosystems, and sustainable forest management

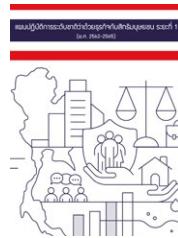
The Company promotes sustainable forest management by not cutting down forest, promote the restoration of degraded forests, and increase reforestation and forest restoration (15.2).



Promote a peaceful and fair society with no prejudice for sustainable development

The Company recognizes the importance of promoting a peaceful society and sustainable development, therefore, the Company's operation is based on transparency, accountability and participation in the Private Sector Collective Action against Corruption (CAC). Moreover, the Company also encourage suppliers to join the network in order to operate business with the Company in a transparent manner. (16.5, 16.6, 16.7).

Guidelines and Cooperation at National and International Levels



National Action Plan on Business and Human Rights

This action plan was developed under the framework of the United Nations Guiding Principles on Business and Human Rights (UNGPs), which emphasizes 3 pillars of protection, respect, and remedies. It consists of 4 key priority issues that need to be urgently addressed, which are 1) labor 2) land, environment and natural resources 3) human rights defender 4) cross-border investment and multi-national enterprises.



Global Reporting Initiative : GRI

An international independent standards organization founded by the United Nations Office for Environment Programs (UNEP) and the Ceres network, which jointly developed a sustainability reporting framework that discloses information in materiality analysis of the business and ability to respond to the stakeholders' interests with the same reporting standards and precise indicators.

ISO 9001

Quality Management System Standard (ISO 9001 : 2015)

A management system for quality assurance that control work process to be detected, correcting errors, as well as guidance for preventing errors. It also cover understanding the organisation and its context, including stakeholders' needs and expectation in order to conduct risks assessment, prioritize risks and develop an action plan to mitigate them, which is one of the foundations that will enable the organization to pursue sustainable development.

ISO 14001

Environmental Management System Standards (ISO14001 : 2015)

International standard on environmental management system, which is internationally accepted. The Company encourages it be used for environmental operations of both solar and wind power plants, as guidelines and operational management to reduce effects from operations, as well as, encouraging activities to preserve environment in the organization.

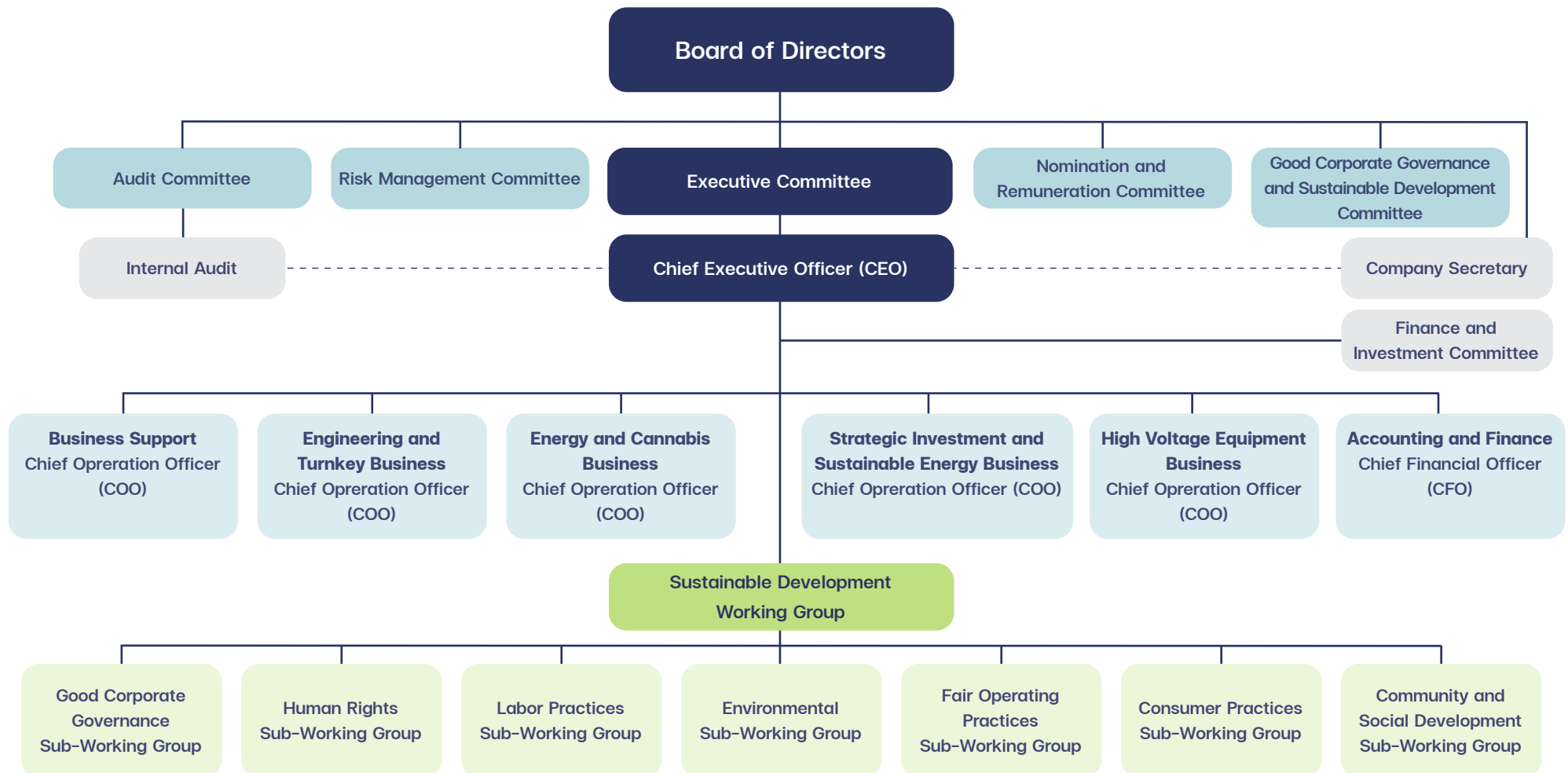
TIS18001 BS OHSAS 18001

Occupational Health and Safety Management System Standards (TIS18001 and BS OHSAS18001)

It is aimed to reduce and control the risks of harm of employees and relevant persons, while also increasing efficiency of business operations to ensure safety, and promoting a culture of corporate responsibility towards employees and society.

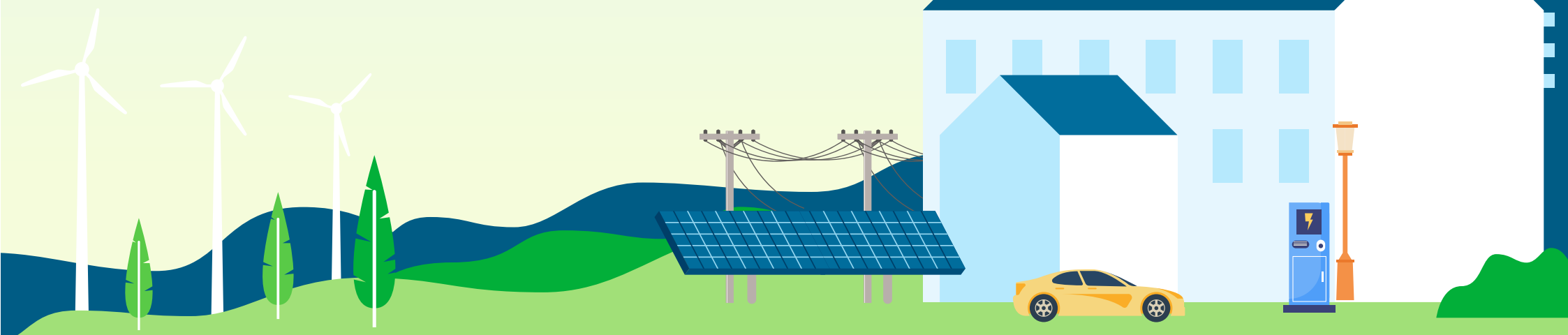
Organizational Structure for Sustainability

The Company has established an organizational structure for sustainability comprises the Board of Directors to approve policy and sustainable operations, and the Good Corporate Governance and Sustainable Development Committee to review, give opinions and suggestion about guidelines, and continually supervise the results of sustainable development, as well as, driving employees' engagement within organization and relevant stakeholders. In addition, the Company has established a working committee to develop organization towards sustainability and to ensure that work processes and sustainable business goals are achieved efficiently. The working committee would consider risks, opportunities, challenges and expectations of all group of stakeholders to use as guidelines in demonstrating organizational strategies and direction, and to promote a potential of community, society, and environment in a balanced way. The Company's organizational structure for sustainability is as follows :



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The Business Value Chain



The Company is committed to be integrated renewable energy, equipment, electrical, and hemp and cannabis business operator, using modern technology and innovation to develop infrastructure that is strong and sustainable, enhancing the quality of life and good health by involving all stakeholders from upstream to downstream and importantly contribute to the long-term value of the Company. The Company has analyzed the 5 Business Value Chain to indicate the key stakeholders which lead to the expectation analysis and specified the guideline to satisfy the stakeholders expectation of the Company by ensuring efficient business operations and reducing potential risks and building good relationships with stakeholders sustainably. The 9 groups of stakeholders include employees, business partners, customers, competitors, creditors, shareholders and investors, as well as the community, society, and environment, the public sector, the media and other organizations.

Creating shared business values towards sustainability

Input Factor



Financial Capital

- Operating expenses : 5,846.01 million baht
- Total assets : 32,331.46 million baht



Production Capital

- Over 5,000 trusted manufacturers and power suppliers
- Total capacity of 600 MW
- Production capacity from solar energy at 515 MW
- Production capacity from wind power at 85 MW



Manpower capital and intellectual capital

- Total number of employees : 1,219 people
- Potential development at 5.61 hours per person per year
- Caring and promoting safety and working environment
- Technology development and innovation



Social and relations capital

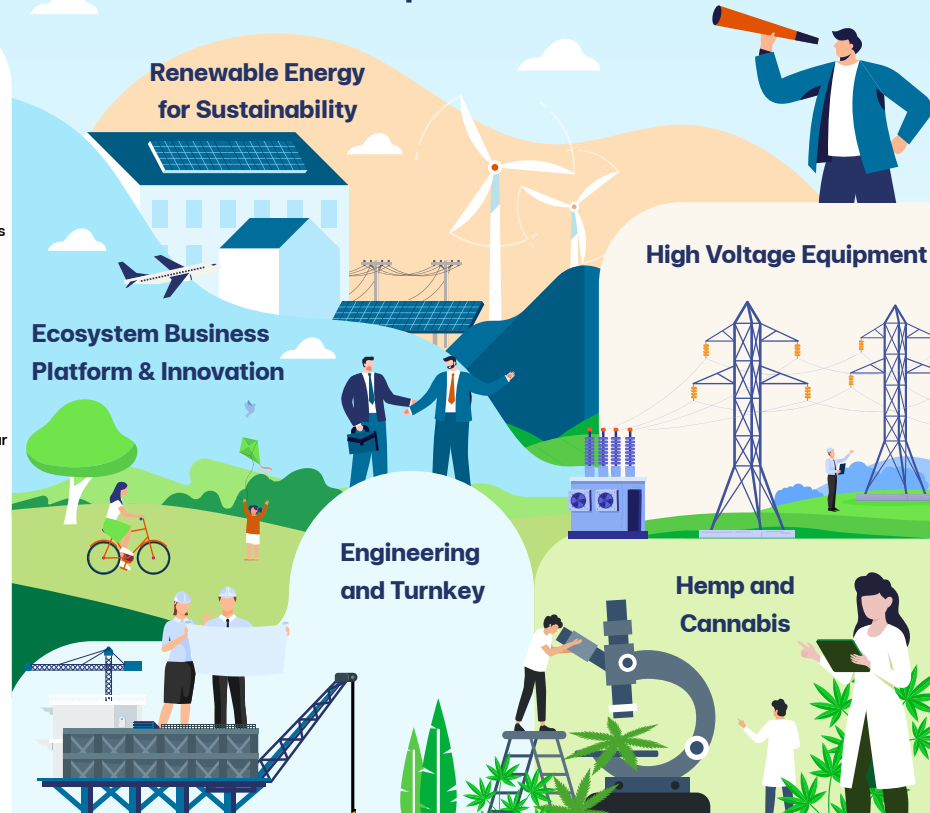
- Community relations and trust
- Engaging with stakeholders
- Business cooperation
- Relationship with partners



Natural capital

- Electricity consumption within the organization amounted to 4,225.14 megawatt - hours.
- The amount of water used within the organization is 61,056.87 cubic meters.
- Renewable and non-renewable natural resources

Business Operations of GUNKUL



We Care Business

We Care People

We Care Social



Result

For growing business

- Total income : 9,515.10 million baht
- Net profit : 3,014.38 million baht
- Earnings per share : 0.34 baht per share
- Generating electricity from renewable energy with a total capacity of 600 MW
- Generating electricity from solar energy with a total capacity of 515 MW
- Generating electricity from wind power with a total capacity of 85 MW


For a livable society


- Employee satisfaction and engagement with the organization at 86.83%
- Employee turnover rate at 1.54%
- 34 promoted employees
- Create participation with communities around the establishment at 80%
- An average score of overall satisfaction & community engagement at 74.94%
- No significant complaints about the community
- Develop Smart City projects for a better quality of life on Smart Energy
- Develop battery projects and virtual power plants



For a sustainable environment



- The total amount of greenhouse gas emissions of the organization is 5,445 tons of carbon dioxide equivalent.
- The amount of Carbon Credit from renewable energy produced is 951,192 tons of carbon dioxide equivalent.
- 481,778 RECs of renewable energy production certificates
- The amount of waste managed according to 3Rs was at 98.67%.
- The amount of electricity consumption from renewable energy is 98,282.45 kWh.
- The amount of circulating water used in the organization is 138 cubic meters.


Analysis of Stakeholders within the Business Value Chain



Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 <p>Employees</p>	<ol style="list-style-type: none"> 1. Reasonable welfare and remuneration compared with others companies in the same industry. 2. Necessary, appropriate and sufficient equipment to facilitate the work. 3. Official performance evaluation annually. 4. Promoting career advancement and working stability. 5. Appropriate and fair employee knowledge and skill development. 6. Take care of employees' health, appropriate and safe working environment. 7. Opened for comments, opinions and suggestion 8. Equitable treatment. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Percentage of satisfaction from the corporate engagement survey is higher than the previous year. 2. Employee turnover is lower or same as the previous year. 3. Employee make progress and enjoy stability in their job. 4. Zero accident rate at work. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Satisfaction from corporate engagement. 2. Employee turnover rate compared to previous year. 3. Number of executives and employees who have been promoted. 4. The rate of accidents and injuries to the extent of missing work (LTIFR). <p>Communication channel :</p> <ul style="list-style-type: none"> • Appropriate need survey in accordance with the business growth. • Corporate satisfaction and engagement survey. • Team building activities to encourage employee engagement. • Publicize news and activities through social networks, E-mail and Website. • Form 56-1 One Report 	<ol style="list-style-type: none"> 1. Establish welfare committee. 2. Annual remuneration survey for appropriate benefit and welfare. 3. Arrange necessary, appropriate and sufficient equipment to facilitate the work and safe working environment. 4. Specify the standard guideline for working assessment with concrete, equitably and transparency. 5. Specify advance career path. 6. Provide/manipulate training course for develop and improve competency in accordance with the employee field and level. 7. Promote and build corporate engagement with employees through various activities and projects. 8. Annual employee corporate satisfaction and engagement survey. 9. Improve and develop opinion and reporting channel. 10. Establish Health, Safety and Working Environment Committee. 11. Promote working culture with respect of human rights.

Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 <p>Business Partners</p>	<ol style="list-style-type: none"> 1. Fair, transparent and accountable procurement and bidding. 2. Corporate competency development for sustainable growth on corporate competency development. 3. Manage accordance with the contract and agreement. 4. Product quality, delivery and full payment on time in accordance with the agreement. 5. Exchange knowledge for development of innovation and new way of working procedure. 6. Respecting each other's rights and non-infringement of Intellectual Property. 7. Social and environmental responsible procurement. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Percentage of business partner competency assessment is at very good level. 2. 100% of key supplier acknowledge in written the supplier code of conduct guideline. 3. Select supplier that support the public of Carbon Footprint of Product (CFP) not less than 2% from the total supplier. 4. 2% of environmental friendly procurement of the total office supplies. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Supplier performance and competency assessment is at very good level. 2. Number of key suppliers who agree in written with the Supplier Code of Conduct. 3. Ratio of suppliers support the public of Carbon Footprint of Product (CFP). 4. Ratio of environmentally friendly procurement for office supplies. <p>Communication channel :</p> <ul style="list-style-type: none"> • Supplier Assessment Form. • Business meetings or seminars. • Channels for receiving feedback, including complaints, suggestions and opinions. • Form 56-1 One Report. 	<ol style="list-style-type: none"> 1. Conducting Supplier Code of Conduct and officially promulgated within the organization, and communicate to business partners. 2. Arrange meeting, create a clear understanding and activities with suppliers. 3. Knowledge sharing by specialists to develop sustainable growth with supplier. 4. Delivery products under specified time, full payment on time with correct and complete that adhere with the contract terms. 5. Visit business suppliers and listen to opinions and suggestion. 6. Treat business suppliers with equality and fairness. 7. Promote Green Procurement with environmental friendly. 8. Effective supply chain management to prevent and mitigate risk that impact social and environment. 9. Conducting an assessment of key trading partners and assessing supplier risk annually to prepare a relationship development plan with partners.

Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 Customers	<ol style="list-style-type: none"> 1. Products and services with quality and safety standards. 2. Delivery of products and services under specified conditions and times. 3. Providing pre-sales and post-sales such as methods or procedures for using the product, proper consultation, assistance and customers visit. 4. Products and service with reasonable price. 5. Maintain and protecting customers confidential information. 6. Efficiency operation meet international standards and not effect to the society, social and environment. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Percentage of customers satisfaction with products and services are higher than previous year. 2. No customers complaints. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Customers satisfaction survey on goods and services. 2. The number of complaints. <p>Communication channel :</p> <ul style="list-style-type: none"> • Channels for receiving feedback including complaints, suggestions, and opinions on the use of goods and services. • Customers satisfaction survey • Visits, meetings, training/seminars. • Form 56-1 One Report. 	<ol style="list-style-type: none"> 1. Provide high-quality, safety, and observable products and services. 2. Inspect and control the production of goods and services to meet international standards. 3. Set up a quality assurance system throughout the supply chain from the raw material to the customers' hand. 4. Employee professional training, serving efficiency services to meet with customer's need. 5. Set the price of goods and services at a price that is appropriate with the quality and provide information to customers with transparency. 6. Continuously research and develop products with suitable and modern technology and innovation with safety. 7. Strictly abide by the agreements given to the customers. 8. Increasing appropriate and modern channels to the products and services 9. Development of the innovation of renewable energy and clean technology for establishing products and services to prevent and mitigate risk that impact social and environment. 10. Promote and support raw materials that environmental friendly. 11. Customers satisfaction survey resulted for sustainable development. 12. Conducting Personal Data Protection Act (PDPA) Policy.
 Competitors	<ol style="list-style-type: none"> 1. Conduct business with transparency, honesty, and ethical competition with fairness and comply by law. 2. Not infringing on copyright or intellectual property rights. 3. Meeting and discussion occasionally. 	<p>Target :</p> <ol style="list-style-type: none"> 1. No complaints about copyright infringement issues. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Number of complaints about copyright infringement issues. <p>Communication channel :</p> <ul style="list-style-type: none"> • Business seminars • Website • Form 56-1 One Report. 	<ol style="list-style-type: none"> 1. Treat competitors fairly, ethical consideration, not infringing on copyright or intellectual property right and comply with the law. 2. Develop communication channels for discussion.

Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 Creditors	<ol style="list-style-type: none"> 1. Fully and timely pay the debt as specified. 2. Compliance with conditions and contractual agreements. 3. Manage risk in a secure manner to ensure business continuity. 4. Manage correctness of the financial information and to publicize to the public. 5. Manage abilities for challenging opportunities. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Comply with conditions and contractual agreements. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Comply with conditions and contractual agreements. <p>Communication channel :</p> <ul style="list-style-type: none"> • Meeting to mutually clarify terms and conditions. • Website • Form 56-1 One Report 	<ol style="list-style-type: none"> 1. Discuss or meeting to achieve mutual conclusion on the terms and conditions. 2. Exchange knowledge on risk management and communicate the correct and complete information continuously. 3. Publicize transparency and complete information continuously.
 Shareholders and Investors	<ol style="list-style-type: none"> 1. Effective good corporate governance and risk management. 2. Business growth steadily and profitable. 3. Return on investment (dividend and share price differential) from good and sustainable operations. 4. The operation of the business is successful according to the objectives. 5. Respect the fairness and retain equal treatment. 6. Disclosure of the Company's information based on facts, correctness, completeness, transparency and timely decision making. 	<p>Target :</p> <ol style="list-style-type: none"> 1. The satisfaction survey result for investor activities ranges from good to very good. <p>Indicators :</p> <ol style="list-style-type: none"> 1. The results of the satisfaction survey for investors activities. <p>Communication channel :</p> <ul style="list-style-type: none"> • Annual meeting or announcement of business plans and business intentions. • Website • Form 56-1 One Report • Shareholders meeting 	<ol style="list-style-type: none"> 1. Operate the business under the principles of good corporate governance and follow the annual business plan. 2. Creating sustainable and balance operating results with risk management concisely. 3. Creating trust and appropriate highest return on investment. 4. Disclosure of business operation and results with transparency and completeness continuously.

Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 <p>Community, Society and Environment</p>	<ol style="list-style-type: none"> 1. Business operation that friendly to environment and society. 2. Promote knowledge and understanding of the renewable energy and innovation help to manage the resource and environment in the community to the communities. 3. Giving priority to safety, impacts on communities and environment. 4. Promote and support activities that benefit to the communities. 5. Participate to develop community, economic, society and environment in the communities. 6. Employ persons with impairment and persons from nearby community. 7. Non-violation of human rights. 8. Discussion and survey for opinions and need from community and society annually. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Percentage of community satisfaction for business operation. 2. No complaints from the community and society. 3. Greenhouse gas emissions are reduced compared to previous year. <p>Indicators :</p> <ol style="list-style-type: none"> 1. The results of the community satisfaction. 2. Number of complaints from community and society. 3. The amount of the carbon dioxide emissions <p>Communication channel :</p> <ul style="list-style-type: none"> • Channels for receiving feedback including complaints, suggestions, and opinions. • Assessing level of engagement with business and place of operation. • Website • Form 56-1 One Report 	<ol style="list-style-type: none"> 1. Establish Company's sustainability development working group and sub-working groups. 2. Publicize the information and understanding of business processes, technology, and innovation, as well as other knowledge that is valuable to society through the website, activity organizing, and other channels. 3. Innovation and clean technology development to reduce the effect to the community and environment. 4. Assessing the community impact before and after conducting business operations with environment responsibility and biodiversity. 5. Onsite survey for opinions, suggestion and monitor on the effect to the community regularly. 6. Support and promote the activity with the community. 7. Manage resource from the upstream to reduce the amount of waste that effect to the society and environment. 8. Applying the 8R guidelines for maximum benefit of using resource to reduce waste leading to Net Zero waste. 9. Arrange channel for receiving feedback, including complaints, suggestions and comments. 10. Promote an environmentally responsible operating culture, energy saving and reduce greenhouse gas emissions throughout the organization.

Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 <p>Public Sector</p>	<ol style="list-style-type: none"> 1. Operate in accordance with relevant laws and regulations. 2. Promote the good corporate governance comply with the business ethics. 3. Anti-Benefit and Corruption Claims. 4. Payment of taxes and fees in full and in timely manner. 5. Cooperation and support in various filed. 6. Manage claims efficiency. 	<p>Target :</p> <ol style="list-style-type: none"> 1. Comply with regulations of the public sector. 2. Promote and participate public sector activities. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Activities incorporated with public sectors. <p>Communication channel :</p> <ul style="list-style-type: none"> • Visits, meetings, trainings/seminars. • Verification and inspect following the standards. • Arrange activities incorporated with public sectors. • Form 56-1 One Report 	<ol style="list-style-type: none"> 1. Operate business under good corporate governance and in accordance with relevant laws and regulations. 2. Disclose information with transparency and regularly. 3. Join the anti-corruption network. 4. Carry out tax matters according to relevant laws and regulations. 5. Cooperate and support activities and operations at the national level.
 <p>Media and Other Organizations</p>	<ol style="list-style-type: none"> 1. Communicate corporate news with accuracy, timely, timely manner and neutrality and benefit to the society. 2. Operate business with responsibility to economy, society and environment. 3. Having concrete operation according to policies and measures to manage impacts arising from business operations. 4. Participate and have good relationship with media and other organizations. 	<p>Target :</p> <ol style="list-style-type: none"> 1. The news presented internally in an accurate, timely, and timely manner. <p>Indicators :</p> <ol style="list-style-type: none"> 1. Amount of news presented within the Company with accuracy, speed and timeliness. <p>Communication channel :</p> <ul style="list-style-type: none"> • Annual General Meeting of Shareholders or announcement of business plan and intentions and activities on listed companies meeting with investors (Opportunity Day). • Channels for receiveing feedback including complaints, suggestions and comments. • Website • Form 56-1 One Report 	<ol style="list-style-type: none"> 1. Submit actual and netural operational information regularly after completion of operation. 2. Submit information that is helpful to society or general public as well as establish working group and sub-working groups for organizational development toward sustainability. 3. Publicize the information and understanding of business processes, technology, and innovation, as well as other knowledge that is valuable to society through website, activities organizing, and other channels.

Materiality Assessment

1. Identifying Key Sustainability Issues

Specified the key issues that effect to the value creation of the organization along with the business value chain by considering the sustainable context from both internal and external factors. Internal factors include risk issues, strategy direction, business objective and expectation and concerns of all group of stakeholders. External factors include international standard of sustainability report framework, United Nation sustainable development issue, other issue within the same or related industry as well as Thailand and international trends that affect to the business in various level which can be divided into 3 main points

- We care Business : Economic issues
- We care Social : Social and environmental issues
- We care People : Employee issues

2. Prioritization

Prioritize key point that can be identified by considering from opportunities and affect to the value creation which may affect to the business operation and all group of stakeholders. The sustainability development working group prioritize the key issues in various level which are High level (Tier1) is the key issues that stakeholders concern very much and may cause high risk to the organization, Middle level (Tier2) is the key issues that stakeholders concern and cause risk to the organization and Low level (Tier3) is the key issues that stakeholders hardly concern and may not cause any risk to the organization, which can be prepare into table of key point analysis (Materiality Matrix) :



- Vertical Axis : Issues that may affect and significant to the stakeholders
- Horizontal Axis : Issues that may affect and significant to the business

3. Validation

Validate the correction and completeness of the key issues, the sustainability development working group has been proposed the verified issues to the Good Corporate Governance and Sustainable Development Committee and the Board of Directors for approval and verify the issues and establish the sustainability action plan and the organizational risk management plan which have been approved by the Executive Management, with Chief Executive Office serving as the Chairman of the meeting in order to meet with the stakeholders expectation and continuous development.

4. Review and Disclosure

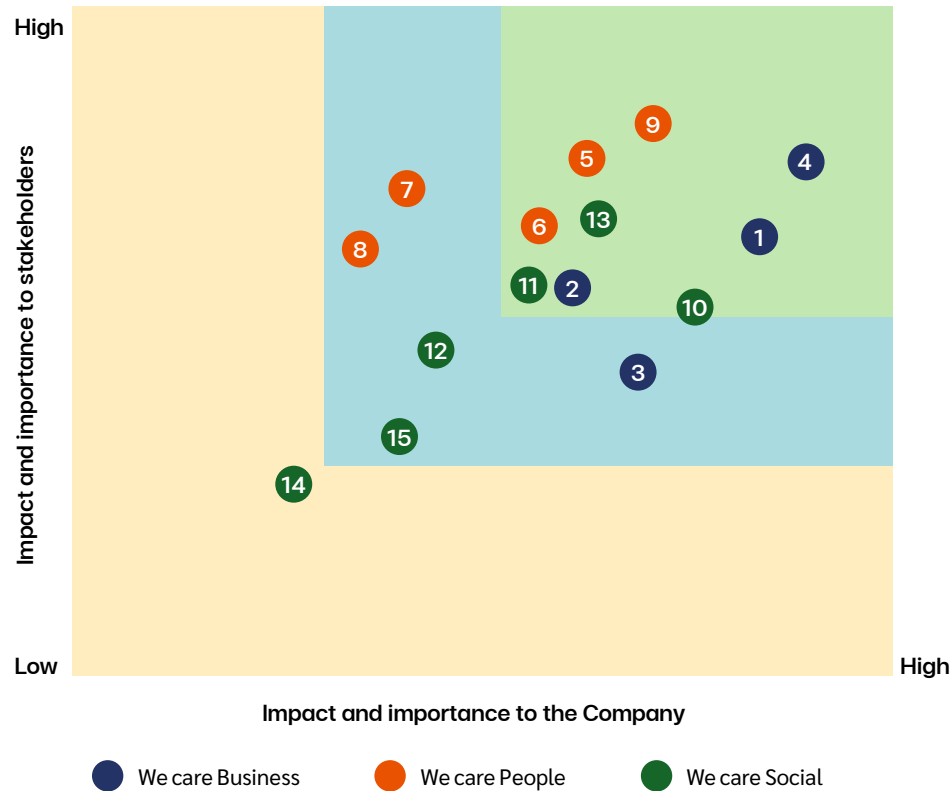
Followed up on operational results that are consistent with the sustainable issue with all 15 key issues. The results have been reported by the Board of Directors and disclosed such the information to the public in various channels such as the Form 56-1 One Report, website, shareholders' meeting and other channels which comply by all regulations.



The Sustainability Materiality Assessment Results

According to the sustainability materiality analysis assessment year 2022 resulted of no changes during the past year. The Company key sustainability issues cover 15 key issues and the key issues at high level cover 9 key issues as follows :

Table of Key Materiality Analysis (Materiality Matrix)



Summary of the Sustainability Key Materiality issues

We care Business

1. Good Corporate Governance and ethics in business operation
2. Risk management during crisis and abnormal state
3. Sustainable supply chain management
4. Development of technology and innovation



We care People

5. Occupational health and safety in work place
6. Labor management and human rights
7. Employee knowledge and skills development
8. Employee remuneration and retention plan
9. Stakeholders engagement to the Company























We care Social









10. Waste management form the operation
11. Community and social relation development
12. Biodiversity management
13. Climate change management
14. Water management
15. Energy management



Scope of impact of the sustainability key issues

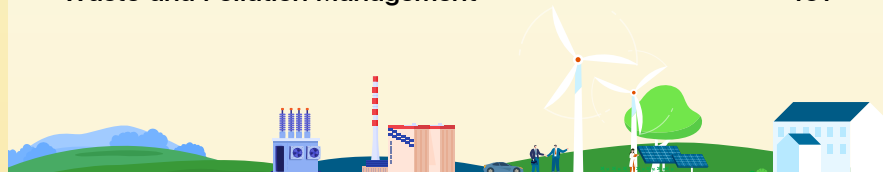
Sustainability Key Issues	Impact Scope		Consistency		Reporting Topics
	Internal	External	Sustainable Development Goals (SDGs)	Global Reporting Initiative (GRI)	
Good Corporate Governance and Business Ethics	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Business Partners Customers Competitors Shareholders and Investors Creditor Public Sector Community, Society and Environment Media and Other Organizations 		<ul style="list-style-type: none"> GRI 2-9 GRI 2-18 GRI 3 GRI 205 GRI 207 	<ul style="list-style-type: none"> Good corporate governance Anti-Corruption Tax Management
Risk management during crisis and abnormal state	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Creditor Shareholders and Investors 		<ul style="list-style-type: none"> GRI 201 GRI 3 	<ul style="list-style-type: none"> Risk and crisis management
Sustainable supply chain management	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Public Sectors Community, Society and Environment 	 	<ul style="list-style-type: none"> GRI 2-6 GRI 3 GRI 308 GRI 407 GRI 408 GRI 409 GRI 414 	<ul style="list-style-type: none"> Supply chain management
Development of Technology and Innovation	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Competitors Shareholders and Investors Community, Society and Environment 	 	<ul style="list-style-type: none"> GRI 3 	<ul style="list-style-type: none"> Customers relationship management Innovation for social development

Sustainability Key Issues	Impact Scope		Consistency		Reporting Topics
	Internal	External	Sustainable Development Goals (SDGs)	Global Reporting Initiative (GRI)	
Occupational health and safety in work place	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Public sector Community, Society and Environment 	 	<ul style="list-style-type: none"> GRI 3 GRI 403 	<ul style="list-style-type: none"> Occupational health, safety and environment in work place
Labor management and human rights	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Shareholders and Investors Public Sector Community, Society and Environment 	    	<ul style="list-style-type: none"> GRI 3 GRI 401 GRI 402 GRI 403 GRI 404 GRI 405 GRI 418 	<ul style="list-style-type: none"> Human rights approach
Employees knowledge and skills development	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Public sectors Community, Society and Environment 		<ul style="list-style-type: none"> GRI 3 GRI 404 	<ul style="list-style-type: none"> Human resource management
Employee remuneration and retention plan	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Shareholders and Investors 		<ul style="list-style-type: none"> GRI 3 GRI 401 	<ul style="list-style-type: none"> Human resource management
Stakeholders engagement to the Company	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Business Partners Customers Competitors Shareholders and Investors Creditors Public Sector Community, Society and Environment Media and Other Organizations 	          	<ul style="list-style-type: none"> GRI 3 GRI 2-29 GRI 2-30 GRI 3 	<ul style="list-style-type: none"> Stakeholders operating plan

Sustainability Key Issues	Impact Scope		Consistency		Reporting Topics
	Internal	External	Sustainable Development Goals (SDGs)	Global Reporting Initiative (GRI)	
Waste management form the operation	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Business Partners Public Sector Community, Society and Environment 	 	<ul style="list-style-type: none"> GRI 3 GRI 306 	<ul style="list-style-type: none"> Waste and pollution management
Community and social relation development	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Community, Society and Environment 	 	<ul style="list-style-type: none"> GRI 3 GRI 413 	<ul style="list-style-type: none"> Community and Social responsibility
Biodiversity management	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Community, Society and Environment Public Sector 		<ul style="list-style-type: none"> GRI 3 GRI 304 	<ul style="list-style-type: none"> Environmental responsibility Greenhouse gas emissions management
Climate change management	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Business Partners Shareholders and Investors Public Sector Community, Society and Environment 	    	<ul style="list-style-type: none"> GRI 3 GRI 302 GRI 303 GRI 305 GRI 306 	<ul style="list-style-type: none"> Greenhouse gas emissions management
Water management	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Business Partners Shareholders and Investors Public Sector Community, Society and Environment 	 	<ul style="list-style-type: none"> GRI 3 GRI 303 	<ul style="list-style-type: none"> Water management
Energy management	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Business Partners Shareholders and Investors Public Sector Community, Society and Environment 	 	<ul style="list-style-type: none"> GRI 3 GRI 302 	<ul style="list-style-type: none"> Energy Management

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For Growing Business

The Company intends to promote operating business with efficiency and focuses on developing business to grow steadily and sustainably amid challenges from both internal and external factors whether it is innovative or techonological changes, the shift in global economic power, tax policy, and resources security to natural disasters that may impact business operation. Operating business with transparency, fairness, ethical, and good corporate governance, as well as, having ability to manage risks and crisis that may occur effectively together with having social and environmental responsibility in the value chain is considered as important mechanism in driving business to achieve such intent and building all group of stakeholders' confidences.



Good Corporate Governance

The Company focuses on operating business under good corporate governance principles with fairness, transparency, accountability, and having responsibility towards stakeholders according to corporate governance structure. The Board of Directors is responsible for overseeing interests of the Company, shareholders, and all group of stakeholders whereas other 5 sub-committees, consisting of 1) the Audit Committee 2) the Risk Management Committee 3) the Nomination and Remuneration Committee 4) the Good Corporate Governance and Sustainable Development Committee, and 5) the Executive Committee are responsible for supporting and assisting in operation and supervising the operation to be in accordance with business ethics. In addition, the Company has established **“Good Corporate Governance Policy”** to serve as guideline for the Board of Directors, sub-committees, executives and employees, as well as relevant persons to adhere to as guideline for practices and for operating long-term business sustainably, as follows :

1. **Accountability** : Responsibility for performance of duties and be able to explain such practices
2. **Responsibility** : A sense of duty at full capacity and efficiency
3. **Equitable Treatment** : Respect the rights and treat stakeholders honestly and equally, as well as providing stakeholders opportunities to participate fairly
4. **Transparency** : Disclose information and operate business with transparency and accountability
5. **Value Creation** : Add value to business both in short and long-term by developing, improving, and enhancing competitiveness
6. **Ethics** : Having business ethics and code of conduct in business operation

Compliance with good corporate governance principles of the Company is in accordance with Corporate Governance Code (CG Code) for listed companies of the Stock Exchange of Thailand, which the Company has regularly reviewed and improved to be consistent with code of ethics in business operations. The structure and guideline according to good corporate governance principles covering 5 categories, which are 1) Rights of Shareholders 2) Equitable Treatment of Shareholders 3) Roles of Stakeholders 4) Disclosure and Transparency, and 5) Board Responsibilities.



Good Corporate
Governance Policy

Good Corporate Governance Assessment Results

The Company was assessed by Thai Institute of Directors Association (IOD) for the 2022 Corporate Governance Report (CGR) to be a listed company with an **“Excellent”** rating; an average score of 97 percent and the scores in all categories were rated excellent for the sixth consecutive year. The average score of each category are as follows :

Corporate Governance Assessment Results (%)				
Category	2019	2020	2021	2022
1. Rights of Shareholders	93	100	100	100
2. Equitable Treatment of Shareholders	98	95	98	98
3. Roles of Stakeholders	94	94	98	98
4. Disclosure and Transparency	97	99	99	99
5. Board Responsibilities	91	93	95	95
Average Score	94	95	97	97

Anti-Corruption

Target in 2022	Performance in 2022
None	None
Case of fraud and corruption complaints	Case of fraud and corruption complaints

The Company adheres to operate business with transparency, ethical, and under good corporate governance framework, including having social responsibility and towards all group of stakeholders, and countering against all forms of corruption. The Company has established Anti-Corruption and Whistle Blowing policy to serve as guideline for directors, executives, employees, and all group of stakeholders not to get involved in corruption, either directly or indirectly, and determined that Anti-Corruption and Whistle Blowing policy must be reviewed regularly, which the internal audit division will perform risk assessment and audit the operations according to such measures and policy. In 2022, the Company has considered and reviewed employees’ guideline related to anti-corruption policy and guideline for receiving gifts, asses, or any other benefits during festive seasons to ensure that the Company’s policy and internal control system are concise and sufficient.



Furthermore, the Company has been certified to be a member of Thai Private Sector Collective Action Against Corruption : CAC) since 2015 and had first re-certification in 2017 and second re-certification in 2020 respectively, reflecting intention, readiness and efficiency of the Company in operating business with honesty and prevention of all forms of corruption.



Anti-Corruption and
Whistle Blowing policy

Operational Goals

2023 Goals	Long-term goals
<ul style="list-style-type: none"> The executives and employees implement Anti-Corruption and Whistle Blowing policy in their working process across the organization. Organize anti-corruption course from external speaker for the executives and employees to enhance knowledge regarding anti-corruption. Encourage employees to join projects or activities held by public or private sector to demonstrate the Company's commitment to operate in accordance with anti-corruption policy. 	<ul style="list-style-type: none"> Create an organizational culture to be and anti-corruption organization to ensure stakeholders that the Company will operate business with utmost transparency. Encourage partners and stakeholders to join anti-corruption network and become a member of Thai Private Sector Collective Action Against Corruption : CAC).

Operational Strategies for Prevention and Anti-Corruption

1. Communicate with employees in the organization regarding Anti-Corruption and Whistle Blowing policy and review the policy on a regular basis through the Company's communication channels.
2. Apply information technology system to control transaction approval, in case of electronic document, by using the system for approval in hierarchical order as it will be more precise in tracking approval outcome and is easily verifiable. In addition, this will also be applied to the Company's group.

Guidelines for Anti-Corruption

The Company has guideline for anti-corruption and whistle blowing complaints by establishing policy and encouraging internal and external stakeholders to comply with such policy without involvement in corruption, either directly or indirectly, and the executives must be role models for employees to comply with anti-corruption measures. Moreover, the Company also establish an internal control system, including system audit process and operational procedures that take into account anti-corruption risk control through risk assessment and demonstrate risk management measures sufficiently and propely, as well as, providing channels for whistle blowing or complaints related to corruption. Moreover, the Company also communicate and promote to create knowledge and

understanding, cultivate organizational culture and organizational value in anti-corruption to its personnel and relevant persons consistently, and include in orientation course for new employees. This is to encourage employees at all level to realize and report incidents that fall within the scope of corruption, and for them to be able to convey the essence of such policy to stakeholders effectively. The Company also require relevant persons to submit the policy acknowledgement form back to the Company, as well as, setting the process in case of receiving whistle blowing or complaint related to corruption. Additionally, the personnel of the Company who commit fraud which is against the Company's ethics must impose disciplinary penalty according to the Company's regulation and the top executives must regularly report the results on inspection according to anti-corruption measures to the Audit Committee and the Board of Directors for acknowledgement.

Anti-Corruption Information or Whistle Blowing Process

The Company has set the process in case of receiving whistle-blowing or complaint related to corruption by identifying group of involved person, complaint reception process, investigation and penalty, as follows :



1. Registration and Submission of Corruption Report/ Complaint

- The personnel receiving the whistle-blowing/ complaint shall submit the issue to the coordinator within 3 working days of the reception date.
- The coordinator shall submit the issue to the Investigation Committee for further consideration or investigation.

2. Investigation

- If the Investigation Committee deems that the whistle-blowing/ complaint is not significant, the Committee shall submit the issue to the supervisor of the reporting personnel for further consideration regarding disciplinary penalty according to the Company's regulation or if it is not based on fact or does not contradict the Company's benefits, the Committee shall record in the complaint registration and end the investigation.
- If the Investigation Committee deems that the whistle-blowing/ complaint has possibility of corruption or conflict of interest, the Investigation Committee shall investigate and report the result to the Audit Committee and the Chief Executive Officer for consideration and further proceeding according to the Company's regulation and/or legal penalty.
- If the whistle-blowing/ complaint concerns the corruption of the high-ranked executive, the Investigation Committee shall be responsible for the investigation and report the result directly to the Audit Committee for the further consideration and proceeding.

3. Order and Penalty

- If the reported person is really guilty, the Company shall order the penalty according to the Company's regulation and/or proceed with legal action.
- After the investigation, if it is found that the whistle-blowing/ complaint is not done with good intention and the reporting person is the personnel of the Company, the Company shall impose the disciplinary penalty according to the Company's regulation.
- The investigation must be finalized within 30 days after received complaint from the coordinator. (If the investigation cannot be finalized within 30 days, the reason of delay shall be notified to the coordinator.)

4. Notification of the Investigation Result to the Reporter/ Complainer

- The Investigation Committee shall submit the whistle-blowing/ complaints to the coordinator.
- The coordinator shall record the operational results in the registration of whistle-blowing/ complaints, and notifies the operational results to the reporter/ complainer.
- The coordinator reports the operational result and the follow-up (if any) to the Investigation Committee, the Good Corporate Governance and Sustainable Development Committee and the Board of Directors for acknowledgement. The report shall be proposed quarterly.

Whistle Blowing or Complaint relating to Corruption Channels

The Board of Directors has assigned the Audit Committee to receive the reports of whistle-blowing or complaints of actions that may lead to suspicion of corruption, either directly or indirectly, for the Audit Committee to independently and fairly consider the reports on complaints. Channels for whistle blowing or complaint if any doubt or wrongdoing related to corruption is seen have been prepared for the following cases :

1. Corrupt actions related to the Company, either directly or indirectly, such as seeing a person accepting bribes to or receiving bribes from government officials or private agency.
2. Actions that violate the Company's regulations and affect the Company's internal control to the extent that it can be assumed that such actions can be a channel of corruption.
3. Actions that cause the Company to lose benefits and affect the Company's reputation.
4. Illegal, immoral acts and business ethics

The reporter/ complainer shall identify the details of complaint together with name, address and mobile number of the reporter/ complainer, and submit via one of the following channels :

Whistle Blowing or Complaint relating to Corruption Channels

	The Audit Committee's E-mail : audit_committee@gunkul.com
	The Company's website : www.gunkul.com, at "Whistleblowing form"
	Sealed postage to Chairman of the Audit Committee Gunkul Engineering Public Company Limited 1177 Pearl Bangkok Building, 8 th Floor, Phahonyothin Road Phayathai, Phayathai, Bangkok 10400
	"Whistle Blowing and Corruption Complaints Box" Set in the Company and can be opened by the Secretary to the Audit Committee



Operational Results on Anti-Corruption

1. Reviewed Anti-Corruption and Whistle Blowing policy for the year 2022.
2. Reviewed understanding and employees' s guidelines related to anti-corruption policy and guideline for receiving gifts, asses, or any other benefits during festive seasons.
3. Declared the Company's intention to against corruption and invited suppliers to be a member of Thai Private Sector Collective Action Against Corruption : CAC) through various channels such as Supplier Code of Conduct Brochure, the Company's website, etc.

2022 Operational result on Anti-Corruption					
Number of employees who accepted anti-corruption policy	Number of new employees who took orientation course on anti-corruption	Anti-corruption knowledge test score			
100%	100%	91%			
None Case of fraud and corruption complaints		Number of Complaints (Cases)			
		2019	2020	2021	2022
		0	0	0	0
		Free from complaints for the sixth consecutive years			
As the Company has invited suppliers to join anti-corruption network, there were tier 1 suppliers that accepted and participated in the performance evaluation according to business ethics					
Totaling 106 suppliers or representing 100%					



Risk and Crisis Management

Risk and crisis management is a key point that the Company places importance to, therefore, the Company has established Enterprise Risk Management policy to be a systematic approach to risk management under good corporate governance and sustainable development principles to support operational efficiency and achieve goals sustainably, as well as, enhancing ability to adapt under uncertain circumstances of changes in economic, society and environment, crisis such as value chain, climate change failure, epidemic, cyber threats, political tension, and other risks that may occur and impact business operation, either positively or negatively. This is considered challenging for business to determine strategies and measures to control and manage risks in business process covering strategic risks, operational risks, financial risks, and compliance risks. The Company also looking for opportunity to create advantages in business operation together with internal auditing to ensure that operation is efficient and effective, and risk management measures cover and link to risks in all aspects, consisting of 1) Strategic risks 2) Operational risks 3) Financial risks 4) Compliance risks 5) Social and Environmental risks, and 6) Emerging risks, and that those risks can be controlled at

an acceptable level. In addition, the Company has established the Risk Management Committee to supervise, determine risk management policy and framework, as well as, following up on and supporting organizational risk management to success. While the internal audit division will be responsible for auditing the operation according to risk management system. Details of the existing risks and emerging risks, including measures to mitigate and control risks, can be referred from Risk Factors Towards The Company's Business Operation, in section Risk Management of the Company's From 56-1 One Report.



Enterprise Risk
Management Policy

Risk Management

The Company has assessed and reviewed its risk issues continuously and has a systematic risk management process that is in accordance with the standards of Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework for directors, executives, and employees at all level to be able to manage risks efficiently.



Identify Risk

Consider and identify risk factors, both from internal and external factors, in all aspects of activities related to business operation.



Analyze Risk

Assess and prioritize risks from the likelihood of risks and the severity of impact.



Response to Risk

Establish measures to prevent and mitigate the impact from risks, in response to risks and opportunities



Follow up and Control Risk

Determine persons to be responsible for reporting and following up on assessment of risk that may occur to keep them at a low level or an acceptable level.



Communicate and Report

Apply information technology to communicate and report on risk management, including encouraging all employees to have full access to such report.

Business Continuity Management

As a guideline for business continuity management of the Company, under high volatility situations, economic uncertainty, uncertainty arising from crisis that may occur to business operation, including risks from internal and external factors that may affect business operation, such as natural disaster, accident, epidemic, and intervention/cyber threats that may cause negative impacts and business disruption, as well as, in order to protect the interests of stakeholders and business credibility,

the Company has established and used Crisis Management Plan and Business Continuity Plan (“BCP”) to handle such uncertain situations and keep business operation ongoing through analyzing and prioritizing risks, planning a systematic management, and implementing BCP in hypothetical event to use the results to review and improve, as well as, checking the competence of personnel and the effectiveness of plan in response to crisis. Management processes are as follows:

- 1. Risk Management :** Assess and establish a plan to control and prevent risk and crisis
- 2. Response to Situation :** Manage crisis and prevent damage efficiently, including communicating information to involved persons for acknowledgement
- 3. Recover from Damage :** Recover activities related to business operation within short-period, and stakeholders agree with

The Company has operated in accordance with its business continuity management plan on an annual basis. In 2022, there were drills in the event of fire and chemical spills, including preparation of information technology systems from cyber threats recovery plan, to ensure that executives and related employees understand their roles and what to do in the event of incident or emergency. Moreover, the Company also assess and identify the deficiencies found in the implementation of measures for development and improvement of such measures to be more efficient and cover risks that may occur.

Risk Management Culture

As the Company encourages and instills awareness and knowledge of risk management among employees, accordingly, demonstrating risk management to be a part of organizational culture to jointly prevent and mitigate the impacts from business operation, as well as, enhancing competitiveness for a long-term sustainable growth from participation of employees at all level in risk management on a regular and continuous basis. Guidelines for creating a risk culture is through risk management policy and control, as well as, encouraging all executives and employees to be responsible for identifying, analyzing, assessing, and prioritizing risks of the department they are affiliated with, and establishing appropriate measures for risk management. This is considered as part of responsible practices. Moreover, the Company also communicate, provide knowledge and understanding, including expectation of creating risk management culture in the organization continuously through various channels, such as meetings, training, orientation, e-mail, e-learning, and annual report.

Supply Chain Management

Target in 2022	Performance in 2022
percentage of new suppliers selected for the evaluation 100.00	percentage of new suppliers selected for the evaluation 100.00
percentage of suppliers who participated in the performance assessment according to supplier code of conduct 100.00	percentage of suppliers who participated in the performance assessment according to supplier code of conduct 100.00
percentage of suppliers who received sustainability assessment covering economic, social and environmental (ESG) issues 100.00	percentage of suppliers who received sustainability assessment covering economic, social and environmental (ESG) issues 100.00
percentage of the Green procurement 2.00 (in respect of the procurement of all office equipment)	percentage of the Green procurement 8.16 (in respect of the procurement of all office equipment)

The Company is committed to continuously developing and improving the supply chain management process in order to select the quality of products and services with the highest quality, efficiency and effectiveness sustainably. This is one of the procurement strategies that the Company gives importance to in order to achieve budget value, worthiness in sustainable resource allocation, supplier risk management, anti-corruption policy promotion, good governance support, local labor employment; as well as, building understanding among business partners to participate and be aware of business operations based on social and environmental responsibility, including the development of all groups of business partners to be able to operate business in a sustainable supply chain, by conducting a supplier sustainability assessment to assess suppliers before buying-selling or making contracts.

Supplier Code of Conduct : SCC

The Company has developed a Supplier Code of Conduct for its suppliers. The purpose is to encourage suppliers of the Company and the group companies to conduct business ethically, respect individual rights and liberties, and treat employees fairly in accordance with human rights principles, with an emphasis on the environment, occupational health and safety, including community and social responsibility. The following is detail of related topics :



Business Ethics

- Corporate Governance
- Equitable and fair treatment
- Intellectual Property
- Disclosure and Confidentiality
- Delivery and quality of the product or service
- Legal compliance



Occupational and Health and Safety

- Safety and working environment
- Personal protective equipment
- Preparedness for Emergency



Human Rights and Labor

- Non-discrimination
- Labor Protection
- Non-Forced Labor
- Paying wages and benefits including a fair working period
- Legally utilize of Labor



Social Responsibility

- Inviting suppliers to join the anti-corruption network

Supply Chain Management Approach

With a commitment to sustainable long-term value creation, the Company conducts a risk-based sustainability assessment for its suppliers, covering ESG issues, ranging from assessment to selecting new suppliers, screening suppliers before trading, evaluating the performance of suppliers, evaluating key suppliers to follow-up and continuing to conduct activities to strengthen relationships with trading partners in order to improve efficiency in supply chain management and to support business growth steadily.

Critical Supplier Assessment

The Company has classified its critical suppliers to enable efficient and systematic analysis and formulation of procurement strategies, using the following criteria for grouping suppliers according to the size of the ordered value :

Criteria for classification of supplier	Supplier group	Assessment method
Order value from THB 10 Million or more	Major suppliers (Critical Supplier Tier 1)	1) Supplier Evaluation Form 2) Onsite Audit
Order value from THB 5-10 Million	Secondary suppliers (Non-Critical Supplier Tier 1)	1) Supplier Evaluation Form 2) Supplier Self Assessment
Order value less than THB 5 Million	Other suppliers	1) Supplier Evaluation Form

In 2022, the Company had 106 Critical Supplier Tier 1 who participated in the supplier sustainability assessment and business ethics assessment, which is 100%.

Supplier Group	Quantity (Income)	Value (Million Baht)	Assessment Method	Sustainability Assessment Form	Supplier Code of Conduct Assessment Form
Critical Supplier Tier 1	106	7,354.53	1) Supplier Evaluation 2) On-site Audit	Answer the assessment by 100 percent	Answer the assessment by 100 percent
Non-Critical Supplier Tier 1	1,162	893.97	1) Supplier Evaluation	No need to submit an assessment	No need to submit an assessment
Total	1,268	8,248.50			



Evaluation of new suppliers

In 2022, there were 32 new suppliers that were in line with sustainability, economic, social and environmental policy. Their total ordered value was THB 127.51 Million.



Payment for goods and services

The Company manages the risk of billing customers by establishing a policy of paying suppliers for goods and services within 30 days to manage the Company's liquidity, taking into account the stability or financial stability of suppliers.



Determination for hiring Subcontractor

The Company stipulates the sustainability conditions in all contracts with suppliers to prevent violation or conduct that is against business ethic practices, environment, and human rights.



Performance assessment or efficiency assessment for suppliers

The Company conducts a supplier assessment annually after delivery of its products or services under 4 topics, covers economic, social and environmental assessments:

Quality of Products and Services

Complete Delivery on Time

Coordination and Service Efficiency

Social and Environmental Responsibility

The score and assessment result of the year 2022 were :

Scoring Criteria		Assessment results in 2022
Level	Score (percentage)	Number (cases)
A = Very Good	More than 80	292
B = Good	70-79	57
C = Fair	60-69	0
D = Need to improve	50-59	0
F = Cut from Approve Supplier List (ASL)	Lower 50	0
Total		349

The following model will be used to evaluate suppliers' performance in 2022.

Annual Supplier Assessment	Assessment During Operation	Operational Area Assessment
Supplier Self-Assessment with form covering ESG.	Safety, Occupational Health and Environment	Evaluate the production processes of suppliers with low annual assessment results.
Supplier performance audit covering performance efficiency, product quality and sustainability.	Social responsibility and environmental care.	Jointly find solution for problem and planning for joint potential development.

The Company has established the following guidelines for dealing with suppliers that may have an impact on the organization :

Level	Impact on the organization	Guidelines
A	Low	Notify the supplier of the evaluation results and require maintain of operating standard while adhering to the Company's code of conduct.
B	Moderate	Notify the supplier of the evaluation results and inform the subject of the improvements the supplier desires.
C	High	Notify the supplier of the evaluation results on the issue that needs to be corrected or improved and request the improvement be completed within 30 days. The supplier must notify the result of the correction or improvement back to the Company to re-evaluate. If the 2nd assessment is still failed, the revision period is extended to 60 days. If within 60 days the improvement is still not possible, the supplier will be canceled from the Approved Supplier List.
D-F	Very high	Notify the supplier of the evaluation result and request the improvement to be completed within 30 days. The Company will conduct evaluation by using On Site Audit as a criteria. If the supplier fails to improve after evaluation will be canceled from the Approved Supplier List



Supplier's Risk Management

The Company sets a supplier risk assessment to prioritize risks that could affect the organization's business operations based on the risk assessment criteria. The likelihood of a risk occurring and the severity of the resulting impact are defined as follows :

Level	Risk	Chance of Risk	Severity of Impact
5	very high	Once a month at a time	More than THB 1 Million
4	high	Once every 1-6 months, not exceeding 5 times	THB 500,000-1,000,000
3	moderate	Once a year	THB 100,000 – 499,999
2	low	Once every 2-4 years	THB 50,000 – 99,999
1	very low	Once every 5 years	Not more than THB 50,000

The guidelines for managing and controlling supplier risks, covering 3 dimensions which are economic, social and environment.

Risk Factors

Economic

Status and financial stability of suppliers

Management and Control Guidelines

1. Collateral
2. Check the past financial statements



Risk Factors

Economic

High turnover suppliers

Management and Control Guidelines

1. Verify compliance with contracts and delivery of work
2. Set periodic payment terms according to the progress of the work.
3. Work collateral

Risk Factors

Social

Child labor, illegal foreign workers and human rights violations.

Management and Control Guidelines

1. Determine the criteria for evaluating the supplier's qualifications
2. Field visits for business



Risk Factors

Social

Occupational Safety and Health

Management and Control Guidelines

1. Assess safety risks before working.
2. Provide necessary safety equipment.

Risk Factors

Environmental

Environmental care and waste management

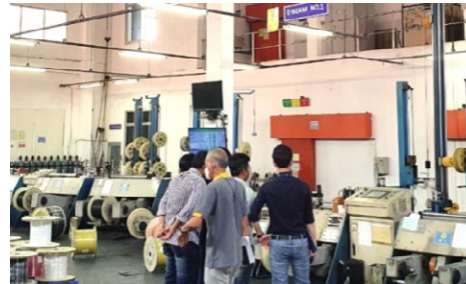
Management and Control Guidelines

1. Check the business license (Ror. Ngor. 4) according to the type authorized by the Department of Industrial Works.
2. Specify and monitor the conditions in the employment contract.



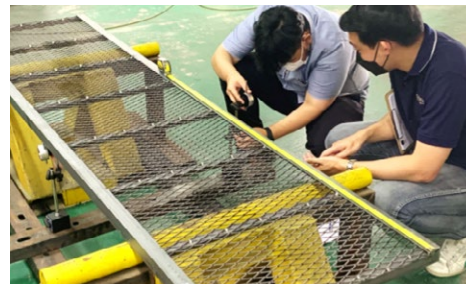
Strengthening Relationships with Suppliers

The Company is committed to develop positive relationships with suppliers through various training programs, seminars, and activities that communicate the organization's business practices as well as various policies and practices that suppliers should be aware of, including a visit to a supplier's factory to exchange knowledge. In 2022, the Company conducted activities to build good relationships with partners and visited 11 partners to build good relationships with partners.



Promotion of Green Procurement

In order to effectively operate the environmental stewardship within the Company; therefore, the Company has promoted the use of carbon footprint products or Green Procurement and cooperate with partners in selecting products that are environmentally friendly, whereby the Company has started in the procurement of all



office equipment. As for the year 2022, the Company had the proportion of green procurement for office supplies at 8.16 percent.

Supply Chain Management Results

Supply Chain Management Results in 2022

32 new suppliers

100 percent of the new suppliers who have been assessed and selected to cover sustainability risks.

106 people who are Critical Supplier Tier 1 and have a direct impact on the Company

Participated in the performance assessment according to the supplier code of conduct, representing **100 percent**

Received a sustainability assessment covering of economic, social and environmental issues, representing **100 percent**

Visited business partners to enhance good relationship with **11 business partners**

Green procurement at **8.16 percent** of total procurement of office supplies of the year



Tax Management

The Company operates business and manages tax with transparency and is aware of the duty and responsibility of tax operation in order to build trust among stakeholders in all sectors. At present, the Company has improved its measures and procedures to be up-to-date, globally accepted, and in the same direction for accounting personnel and related employees to have knowledge and understanding of tax requirements, guidelines for preparation of financial reports, and tax planning. This is to ensure that they will be able to perform and operate correctly in accordance with the organization's activities and law, which will help reducing the risk of additional fines, error in tax calculations, and careful planning to prevent tax problems that may occur in the future. In addition, the Company has organized additional training courses every year for related employees to know tax practices and able to apply it with business effectively.



Tax Management

The Company adheres to and complies with law and regulations with discretion and transparency, as well as, focusing on tax risk management, such as tax consequences arising from changes in tax policy or government tax administration guidelines, supporting written tax risk management policy and procedures, and assessment of all tax-related activities, which cover legal compliance risk, operational risk, and financial reporting risk of the independent external auditor.



Tax Transparency

The Company reports tax performance to the government with transparency and in consistent with requirements on disclosure of tax obligations. The Company also support new policies that require companies to publicly disclose tax benefits information and report of operations that support overall economic development of the country. In addition, the Company is committed to being an organization that is a good corporate citizen by creating excellence in tax responsibility and transparency to build trust among society and all stakeholders.



Compliance with Employees' Code of Conduct of

Employees must strictly comply with the Company's rules and regulations to reduce the risks that may affect tax and cause damage to the Company. Consequently, the Company regularly communicate and organize training courses for employees to develop their knowledge and understanding of the work in accordance with rules and regulations, including causing compliance with code of conduct.



Tax Managemet Policy

Actual Tax Rate (Effective Tax Rate)

Net profit before income tax	
2019	893,653,478 THB
2020	2,247,223,814 THB
2021	2,199,865,646 THB
2022	1,308,596,054 THB

Income tax expenses	
2019	(945,963) THB
2020	50,072,144 THB
2021	12,458,498 THB
2022	66,748,912 THB

Corporate income tax rate	
2019	20%
2020	20%
2021	20%
2022	20%

For a Livable Society

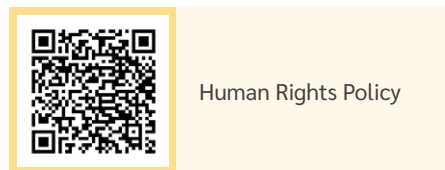
The Company realizes that long-term achievement of the Company and well-being of the society must grow together. Therefore, the Company places importance on strengthen social development through creating shared-value within co-working process with internal and external communities of the organization, as well as community network of all sectors in order to promote business strength and confidence together with responding to social needs, and creating a strong and livable society. In addition, the Company strictly acts in accordance with regulations and law, as well as placing importance on all group of stakeholders fairly and ethically without discrimination according to human rights policy.



Human Rights Approach

Target in 2022	Performance in 2022
<p>None</p> <p>Case of labor issues and human rights complaints</p>	<p>None</p> <p>Case of labor issues and human rights complaints</p>

Conducting business with integrity and adhering to responsibility towards stakeholders is an important factor that enable the Company to success and drive sustainable business growth. Therefore, the Company has established Human Rights policy to serve as guideline for directors, executives, employees and stakeholders to acknowledge and strictly comply with, including law and human rights principles, to ensure that the Company's business operation is free from human rights violation based on recognizing values and equality. The guidelines are as follows :



Respect for Human Dignity	Respect for human dignity, fundamental rights and freedom according to the provision of the Constitution, including life and property safety of the Company's stakeholders.
Promote Equality	Promote equity, treat workers fairly, and all employees have the rights to grow and advance their career. The Company has provided employees a proper and competitive compensation and benefits. Including the use of performance assessment system (KPIs), that can be measured in numbers, as well as, providing opportunities for training/development and promoting career advancement of employees equally.
Respect Different Opinions	Respect different opinions, freedom of religion, beliefs, traditions and cultures, including the privacy and confidentiality of those who involved.
Manage Human Resources Fairly without Discrimination	Manage human resources fairly without discrimination according to human rights policy. As well as, complying with minimum labor laws, such as employment (the prohibition of child and forced labor), including opposing sexual harassment in terms of words, manners and actions. In which, the Company has clearly set the penalties.
Directly Communicate with Stakeholders	Provide a direct communication channel with stakeholders and compliants/ grievances channel, including efficient process for resolving complaints and grievances that are fair to all parties for the operations to be audited and transparent.
Adhere to Morality, Ethics, and Professionalism	Adhere to morality, ethics, and professionalism in business and operation of the Company.

The Company adheres to these guidelines for business operation by establishing this as fundamental responsibility that the Company shall treat stakeholders and assigns the Office of Chief Executive Officer to be responsible for strict supervision in order to build trust and confidence among shareholders, employees, partners, customers, communities and society, bringing the Company's reputation and good image continuously.

Human Rights Approach



The Company promotes the development that would lead to creating organizational culture that respect human rights in business value chain that covers all stakeholders through human rights process, consisting of establishment of human rights policy, assessment of impact on stakeholders, establishment of impact prevention and mitigation measures from risks that cover labor rights, community rights, and customer rights, as well as, following up operational results and receiving complaints and remedies through various complaints channels. Any complaint the Company receives will be strictly reviewed and considered, and treated as confidential. If the allegation is confirmed, the Company will provide remedies to those who have been violated properly and fairly, whereas those who have violated human rights will be considered as unethical persons, and must be subject to disciplinary action according to the Company's regulation or proceeded with legal action.

Whistle Blowing or Complaint relating to Corruption Channels

	The Audit Committee's E-mail : audit_committee@gunkul.com
	The Company's website : www.gunkul.com , at "Whistleblowing form"
	Sealed postage to Chairman of the Audit Committee Gunkul Engineering Public Company Limited 1177 Pearl Bangkok Building, 8 th Floor, Phahonyothin Road Phayathai, Phayathai, Bangkok 10400
	"Whistle Blowing and Corruption Complaints Box" Set in the Company and can be opened by the Secretary to the Audit Committee

Apart from communicating report and receiving complaints on human rights violation through Whistle Blowing or Complaint channels, the Company also communicate and educate employees on human rights to understand the practice guidelines and for prevention of human rights violation in the Company, including prevention of participating in human rights violation of stakeholders in value chain. In addition, the Company has established the Welfare Committee to be employees' representative in supervising, promoting equal and fair treatment, improving labour operations, as well as, promoting knowledge and understanding of fair operation in accordance with human rights principles. This also include providing labor assistance and building a network of the Company's workers by providing communication channels to gather opinions for a continuous improvement of employees' welfare process. Roles and responsibilities of the Welfare Committee are as follows :

1. Collaborate with employer to arrange welfare for employees.
2. Give advice and recommendations to employer on welfare arrangement for employees.
3. Inspect, control, and supervise welfare arrangement that employer provides to employees.
4. Offer ideas and guidelines on organizing welfare that are beneficial for employees.

Human Rights Operational Result

2022 Human Rights Operational Results



Received The 2022 Role Model Organization Award in Human Rights from the Department of Rights and Liberties Protection, Ministry of Justice.

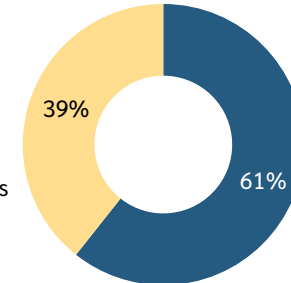
Gunkul Engineering PCL has awarded good for large business sector category and G.K. Assembly Co., Ltd. has received consolation award for medium-sized business sector. These awards reflect the Company's commitment to business development and operation under principles of respect for human rights, that not only clean energy innovation the Company cares, but also the existence of the world and quality of life. In addition, the Company operates business with transparency and ethical, having social responsibility in accordance with human rights principles covering labor rights, supplier rights, customer rights, community and environmental rights in order to drive business growth, develop a strong infrastructure, and promote quality of life and good environment for a sustainable society.

Human Resource Management

Summary of Key Operations

All Employee
1,219 Persons

- Male 739 persons
- Female 480 persons



Disability
 Employment
11 Persons

Elderly
 Employment
11 Persons

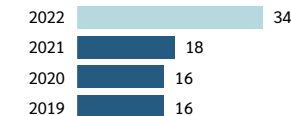


Average Training Hours
5.61 hour/person/year



Promotion Rate with
 Special Projects
 (Excluding promotion according
 to age of work)

34 Persons



Annual Scholarships for
 Employees' Children, total
86 Scholarship

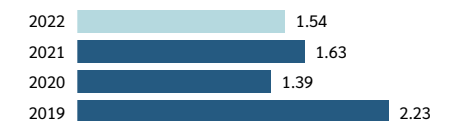
Total 470,000 Baht



The Average Score of Employee
 Satisfaction with the Organization
Percent 86.83



Turnover Rate
 (Including temporary staff)
Percentage 1.54



Employee is the key resource for sustainable organization while current employee consist of various age of employee which creating Generating Gap in welfare, remuneration, platform and challenge in working as well as career path, the Company needed to adapt the strategy and employee engagement management and employee retention therefore, efficient recruitment method, motivation, potential development and employee care are the key fundamental for a strong team building to drive the organization to growth sustainably.

Employment

The Company values on fundamental human rights and operates its business in accordance with the humanitarian principles, regulations and related laws, with fair employment and recruitment which are appropriate for the Company's business direction. It also supports employee diversity, without discrimination on gender, race or religion so that all employees can work happily and efficiently. As of December 31, 2022, the Company has a total of 1,219 employees, divided into 739 male employees (60.62%) and 480 female employees (39.38%). The Company support the career and income for disadvantaged, there are 11 employees with disabilities who are registered as disabled with the Department of Empowerment of Persons with Disabilities, in compliance with the requirement therefore, the Company aims to continually support more people with disabilities. At present, the Company has employees classified by age range. This includes 11 elderly people employed by the Company in order to provide them with income to support themselves and their families and live in a balanced society equal to the general public and happily.

Number of Employees

Employment	Number of Employees			
	2019	2020	2021	2022
Total employees (persons)	844	964	959	1,219
Monthly	716	854	849	1,051
Daily	128	110	110	168
Number of employees by type of employment (persons)				
Full Time	718	791	835	1,033
Contracted	126	173	124	186
Number of employees by gender (persons)				
Mail	538	603	610	739
Femail	306	361	349	480
Number of employees by othe hiring (persons)				
Disabled	2	7	8	11
Elderly	5	6	8	11
Number of employees by employee level (persons)				
Management Level	34	38	41	59
Manager Level	60	65	71	87
Supervisor Level	88	114	117	143
Staff Level	421	476	509	646
Operator Level	241	271	221	284
New employess empolymnt rate (%)	2.42	1.90	1.84	3.53
Employee turnover rate (%) (Excluding temporary staff)	2.23	1.39	1.63	1.54

The Company appointed the Compensation and Remuneration Committee, HR Committee and Welfare Committee from employee selection to oversee the welfare and well being of the employee by listening to their complaints and suggestion to improve welfare and others employee benefit through employee representative and their manager from the committee, to arrange for the meeting regularly and to find the solution, guideline to set up policy and guideline to manage the welfare and well being of employee under fairness and be able to compete with other company at the same level that can motivate and retain good, talent and capable employee to work and develop the Company sustainably.

Training and Development of Personnel Potential

Target in 2022	Performance in 2022
Average Training Hours of not less than 9 hour/ person/ year	Average Training Hours 5.61 hour/ person/ year

The Company realizes that **“employees”** are the starting point for driving the business towards the goal, which is the main driving force that will lead the organization towards sustainability. Therefore, the Company has developed human resource management on the basis of treating personnel with fairness and respect for human rights, by focusing on opportunities, maintaining the environment, safety and organizing a cooperative work system; as well as, promoting skills and learning throughout the working period with the aim of building employees to be talented people, good teams and excellent organizations, by focusing on and building on the characteristics, skills and potential that the organization expected by linking employee behavior with corporate culture **“Organization grows Employees Growing”** (We GROWTH Together) to creates unity and is like laying the foundations of the organization to be stable and sustainable.



The Company values on learning and increase knowledge for employee through creation of learning organization to support the progress of employee career, self-improvement and working improvement continuously which lead to the creation of new innovation of the Company to compete business with others and ready for the future along with the development of talented employee in the organization through training and potential development program as follows :



1. Training Road Map

The Company set up annual employee training and development plan (Train Plan) to develop employee potential to prepare for the growth of the organization which consist of 11 types of skill as follows :

- 1) New employee orientation course
- 2) Engineering training course
- 3) Digital and communication training course
- 4) Leadership and management level training course
- 5) Operational health and safety training course
- 6) Law and regulation training course
- 7) Finance and accounting training course
- 8) Energy and environment training course
- 9) Sales and marketing training course
- 10) Quality control training course
- 11) Working attitude training course such as communication, persuasion, listening, adaptability, empathy, team work skill and etc.

Moreover, the Company has set up Individual Development Plan for group of Successor, the purpose is to develop employee in key position both in term of work, skill, capability to be ready and acceptable from the others. This plan was designed based on training experience, working assessment and responsibility expectation in order to match with the capability and need of employee.



The Company set up diverse and flexible learning program for the efficiency of the employee by using learning model 70 : 20 : 10 for training to all employee level, also focus on the new employee to growth along with the Company since the first working day by set up the orientation to understand about the Company's system, culture and regulations. The Company also prove on the job training by mentor who can be consult, advice and evaluate closely with the new employee.



2. Knowledge management within the organization (Knowledge Management)

Knowledge Management through 1. Knowledge sharing 2. Knowledge Network 3. Knowledge Search Engine or KM Center as an activities supporting the learning society for collecting knowledge, searching and business continuity.



3. Make career progress plans for employees in the organization (Career Path)

The employee will be evaluate in 2 dimension such as competency and key performance indicators ; KPIs for the organization to certain that the employee having potential to deliver work match with the organization expectation.

4. Establish a succession plan for important work of the organization through the policy of job promotion (Succession Plan)

The Company having policy about employee in proactive way to prevent the shortage of employee in key position in the future by establishing succession plan for the continuity of the job and organization management.

Personel Training and Potential Development

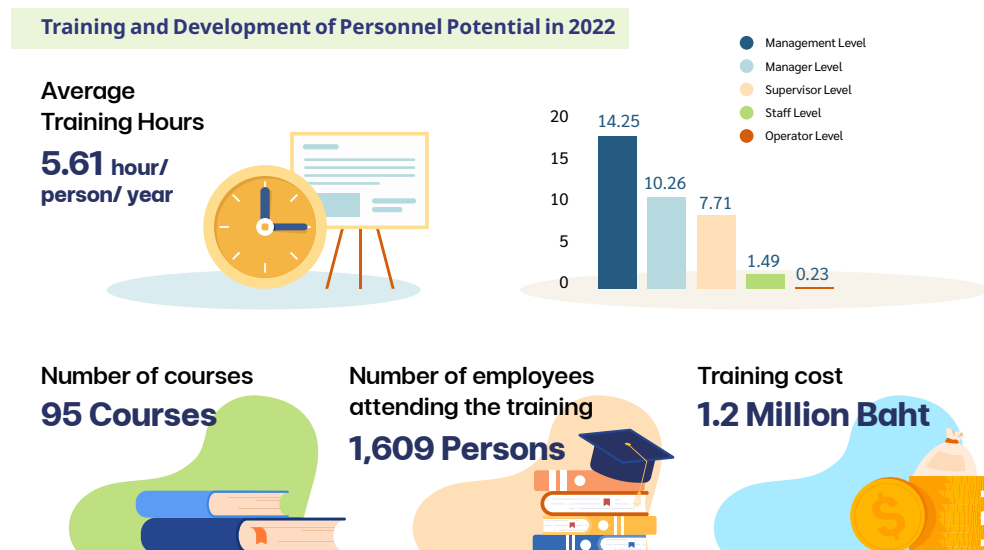
The Company analyze the training program base on the need of employee in each department, responsibility as the right fundamental employee knowledge and skill and to reach the Company expectation. In 2022, the Company training course for employee potential development including law and regulation training course such as Quality Management System Standard and Environmental Management ISO14001 : 2015, ISO/ IEC 17025 : 2017, quality control training course such as knowledge from QCC activity, Digital and communication training course such as Microsoft Excel and Report prepatation, Working attitude training course such as Grothe Mindset, negoitation and customers complaints management as a professional, Occupational health and safety training course such as safety in working in confined space, working at height for workers and safety officer supervisory level, Financial and accounting training course such as corporate income tax, financial reporting standards and code of ethics for professional accountants and etc.



The Company creating Leadership Development Program within talented supervisor (Talent Development Program) such as Leadership Succession Program (LSP) and Leadership within you with post-training evaluation for employee potential after training for improvement and development.



Training and Development of Personnel Potential



In order for employees to be “**Good people**”, the Company has allocated budget for 95 employees potential development training courses and the average number of training hours for employees is 5.61 hours per person per year. The details are as follows :

Budget and Training Statistics

Details	2019	2020	2021	2022
Training budget (million baht)	3.85	3.15	2.00	1.20
Number of courses	168	135	111	95
Number of total training hours	13,985	12,754	4,805	6,843
Number of employees attending the training	2,231	1,022	1,371	1,609
Average training hours/ person	16.57	13.23	5.01	5.61

Remark : 1) Some of the employees potential development training courses have been adapted via online training

Average number of training hours by employee level

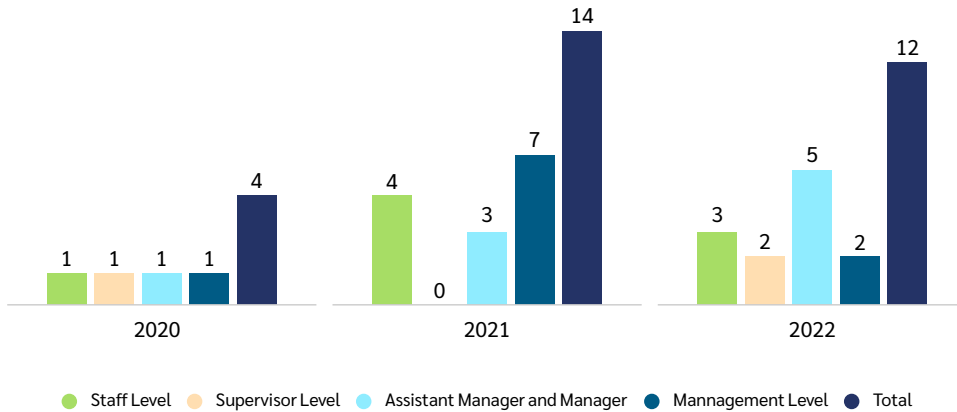
Employee Level	Average number of training hours/ employee at each level			
	2019	2020	2021	2022
1. Operator Level	9.00	5.00	1.21	0.23
2. Staff Level	14.00	7.00	5.91	1.49
3. Supervisor Level	26.00	6.00	7.40	7.71
4. Assistant Manager and Manager Level	36.00	6.00	9.20	10.26
5. Management Level	36.00	23.00	21.94	14.25

Training Format

Format	Number of employee	Number of courses
In-house Training	1,178	49
Public Training	94	37
Knowledge Sharing	337	9

Apart from the training program, the Company giving important to those who talented, knowledgeable, having professional skills include all the executives and employee who been trained by establishing training program, Knowledge Sharing by encouraging said executives and employees to transfer the knowledge and skills learned from previous trainings to interested employees under comfortable environment which purposed to promote employee learning and creating lively working environment, good relationship in the organization lead to trustworthy between each employee in the organization. The Company expectation is the employees were knowledgeable in various skill and having potential to growth in their career also create employee engagement and loyalty.

Number of Employees who Can Transfer Knowledge and Skills Through Knowledge Sharing



Apart from supporting the employee potential development, the Company also support and share knowledge with the public under internship program that seek for real work experience in various department of the Company and match with their skill and ability for them to be ready for applying the job and working in the future.

Summary of the Number of Internship Students in 2022

Department	Amount (person)	Institution
Innovation Department	3	Chulalongkorn University
Project Management	1	Mahidol University
	2	Chulalongkorn University

Welfare and Compensation

For the employees to provide results and development themselves together with the organization continuously and to create engagement for employee, the Company provide appropriate and sufficient welfare, compensation which may be paid in monetary form such as remuneration the worthy and fair, non-monetary such as systematic and good working environment, occupational health and safety, career development and relationship activities. The Company prepared employee welfare and compensation as follows :



Remuneration and
Welfare for Executives
and Employees



Financial Welfare and Facilities

- Bonus payments and annual adjustments, assessed by performance results, skills and employee arrival times.
- Employee Provident Fund.
- Staff uniforms.
- Flexible working hours and convenient and safe workplaces such work from home.
- Adding vacation days according to the length of work.



Health and Safety

- Group accident insurance and travel insurance in case of travelling abroad.
- Health insurance in case of outpatients and inpatients.
- Dental allowance.
- Provide equipment to prevent COVID-19 for employees such as COVID-19 (ATK) test kit, GUNKUL Care Bag, fabric mask, and thermometer, cleaning equipment, liquid soap, alcohol gel, germs sanitization in the workplace, and setting up partitions between the desks to prevent the spread of COVID-19.
- Morning Talk activity – JSA : Job Safety Analyst, job analysis before working for safety in accordance with Plan-Do-Check-Act (PDCA) principles.



Employee Family Welfare

- Scholarship for employees' children.
- Disaster assistance.
- Funeral assistance for the employees' parents and children.



Mental and Participation

- Employee birthday events, dining together birthday gift and/or consecration and listening to sermons.
- 5S and QCC activities to create participation in the development/improvement of working methods and environment.
- Organizing management level birthday and occasional day lunch activity.
- Executive visit activities or meetings via Google Meet or Zoom, solar power plants, wind power plants and construction sites to boost morale. Attend meetings and talk with all employees to exchange ideas, requests, development and maintenance of employees' well-being.



Religion, Culture, Tradition

- Making merit, offering food together with the community surrounding the Company on important Buddhist days and make merit for the Company's annual ceremony.
- Asking for blessings through auspicious oranges according to Chinese traditions during the Chinese New Year.
- Distributing auspicious envelopes "**Ang Pao**" to employees.
- Annual merit-making activities.



Voluntary Activities

- Social service activities : cleaning toilets, sweeping the temple yard, and collecting trash around the Company and community.
- Transfer knowledge about installation of solar panels, and replacement and installation of LED light bulbs.
- Sustainability development activities, promoting social and environmental responsibility, comprehensive response to stakeholders



Scholarship for employees' children in 2022

Detail	2019	2020	2021	2022
Number of Scholarship	48	61	76	86
Amount (Baht)	208,000	269,500	410,000	470,000

Welfare and compensation performance in 2022

The Company received Thailand Labor Management Excellence Award 2022 for second year continuously covers 5 companies as follows :

1. Gunkul Engineering Public Company Limited
2. Gunkul Power Development Co., Ltd.
3. Future Electrical Control Co., Ltd.
4. G.K. Assembly Co., Ltd.
5. G.K.Power Products Co., Ltd.



Employee Engagement

Target in 2022	Performance in 2022
Percentage of employee satisfaction and loyalty of not less than 80.00	Percentage of employee satisfaction and loyalty 86.83

The Company promotes equality to all employee levels and focuses on building employee engagement through corporate culture **“GROWTH together”**. The Company believes that the behaviors created by people in the organization arise from learning each other and adhering to each other until it is a tradition as a foundation for a culture of work within the organization because the loyalty between employee and the organization is a key mechanism to retain their relationship and creates employee motivation and to attract new talented employees to join the Company which can create changes, development and expand business opportunities, aiming to be a leader in the integrated business and move forward steadily to the next year.

Employee engagement activities

For the employee to create results and for self-development continuously and creates the bond between employees and the organization through corporate activities with the employee, to create the employee engagement is important and resulted in the success of the organization. The employee can be part of the organization and willing to give suggestions as guidelines for the organization's human resources development. Moreover, the Company focuses on creating the employee work-life balance for a happy working life which leads to the employee loyalty with the organization and low turnover rate. In 2022, the Company established activities for bonding among employees as follows:



Chinese New Year Activity



Songkran Day Activity



Bold Donation Activity



Free lunch event to the employee

Employee Satisfaction with the Organization 2022

Employee satisfaction
with the organization
Percent 86.83

Turnover Rate
(Include temporary employee)
Percentage 1.54

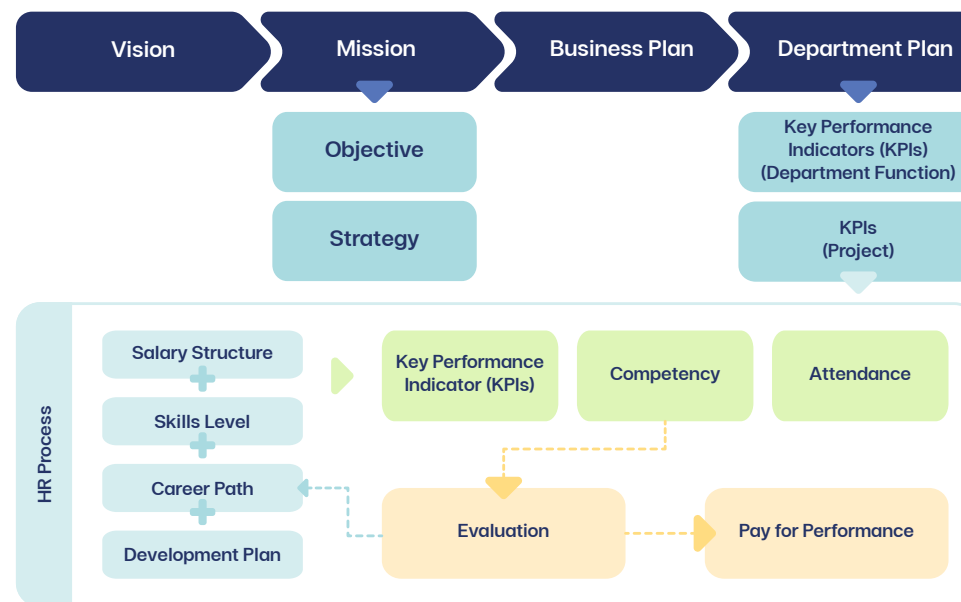


Employee Engagement	2019	2020	2021	2022
Employee satisfaction score (percent)	67	87	86	87
Employee turnover rate (percent)	2.23	1.39	1.63	1.54

Promoting Employee Progress

The Company has policies, rules and regulations for the selection and promotion of internal personnel to receive job promotion adjustments to create incentives for personnel and maintain personnel awareness of the stability in their own career that will continue to grow or move to a higher position or any department. When the employees have knowledge, capability and qualifications required for the position with higher duties and responsibilities according to the succession plan, the employees will be nominated for job promotion. The Company has procedure to link compensation with skills, competency and performance appraisal to align with the vision, mission, policies and strategies of the Company as follows :

Promoting Employee Progress



The process for promoting and support employee progress will be operated with fair selection criteria and will be screened by High-level executives in each department that is the personnel management committee by having the Chief Executive Officer as the Chairman of the Personnel Management Committee, HR Committee. Their duties are as follows :

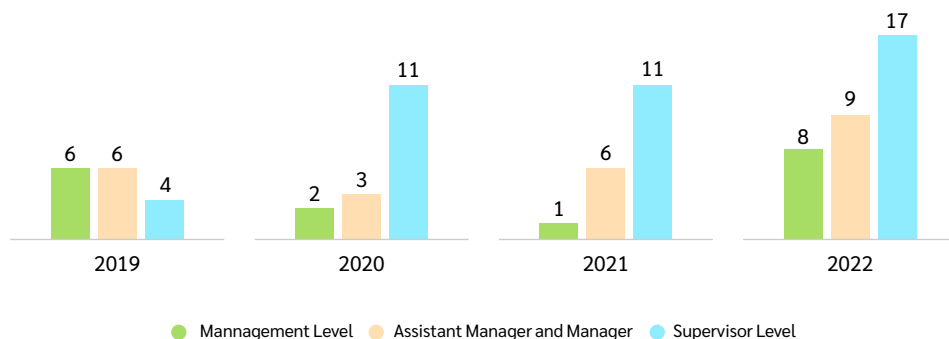
- Consider the qualifications of personnel who have been proposed to be promoted in accordance with the policies, regulations, and rules set by the Company in accordance with the succession plan.
- Consider problems, obstacles and other factors that related to the organization's human resource management.
- Approve policy guidelines and solutions within the scope of authority and responsibilities that assigned by the Company.
- Suggest ways to solve problems or guidelines or criteria for human resource development in accordance with the Company's policy.
- Personnel Management Committee is appointed from senior management and the Human Resources and Administration Manager serves as a committee and secretary with the approval of the Chief Executive Officer.

Result of the Promoting Employee Progress

Promotion Rate with Special Projects **34 Persons**



Employee level that has been promoted	Number of employees who have been promoted			
	2019	2020	2021	2022
Management Level	6	2	1	8
Assistant Manager and Manager Level	6	3	6	9
Supervisor Level	4	11	11	17
Total number of employees who are promoted each year	16	16	18	34



Safety, Occupational Health and Working Environment Management

Target in 2022	Performance in 2022
Number of time-off accidents of more than 3 days (LTIFR) (case per 1,000,000 working hours) Zero case	Number of Time-off accidents of more than 3 days (LTIFR) 1.44
The rate of Lost Time Injury of more than 1 days Decreased 5 percent (case per 1,000,000 working hours)	The rate of Lost Time Injury of more than 1 days 1.79 Increased 16.99 percent





The Company realized that the unappropriated safety, occupational health and working environment management not only directly affected to employees' health and living but also effected to the image of the organization and stakeholders. Therefore, the Company strongly encourage to take care all employee and related workers with safety working environment that comply with the law, international standard and others regulation for safety of the working person, suppliers, contractor, sub-contractor and community which are the Company stakeholders related to the business operation. As a result, the Company established Health, Safety and Working Environment Committee which responsible to establish the prevention and to decrease work place injury also, to promote and support safety in work place for those who working to be comply with the Company safety standard including promote knowledge, understanding and awareness to all level of employee to realize and participate in safety, occupational health and environment management continuously and sustainably.

Safety, Occupational Health and Working Environment Management

1. Established Health, Safety and Working Environment Committee
2. Training on safety and occupational health to new employee on orientation day and contractor's employee before starting working with the Company
3. Spare parts and equipment test for high risk operation
4. Assess the operation and monitor the safety rate of employee and contractor regularly and continuously
5. Annual fire evacuation drill
6. Work place inspection regularly such as loud noise, lighting, dust in the air and quality of waste water
7. Review the matters of law or regulation for safety, occupational health and working environment regularly

Risk Assessment

The Company sets risk assessment for accident in working place in order to establish risk prevention plan on safety, occupational health and environment including activities operated by employees and contractor working within the working area, found out that high risk activities which can cause working injury such as falling from height level, fire, chemical spill, working in confined space and use of working machine. As a result, the Company specified the preventive measure and dangerous control which intent to mitigate risk and dangerous from working and to be ready for any emergency occur including to analyze the inspection for safety, also specify the permission needed before working in high risk area.

High Risks Activities	Preventive Measure and Mitigation
 Working at height	<ul style="list-style-type: none"> • Safety analysis • Inspection and understanding the safety analysis for working at height • Testing the safety prior working and the usage of the equipment, machine and also the surrounding
 Working in heat with spark and using of chemical in production line	<ul style="list-style-type: none"> • Inspect the readiness of the equipment • Safety equipment inspection plan • Fire evacuation drill and chemical spill emergency plan
 Working in confined space	<ul style="list-style-type: none"> • Safety analysis • Permission to work in confined space • Air and hazardous gases • Using confined space ventilator
 Working with machine	<ul style="list-style-type: none"> • Training for machine using instruction and awareness • Inspect the readiness of the machine • Accident report and preventive measure • Create controlling equipment

The Company's activities for employee and contractor health care and safety



Safety and occupational health training to employee



Contrator's staff training before start working



Inspection the spare parts of crane



Inspection working environment
(Sound measurement)



Morning Talk and exercise before start working



5S activities in work area



Equipments inspection before using regularly



Chemical spill evacuation training





5S Activities and the Environment

To promote a cooperative work environment as well as to promote skills, abilities, experience and learning throughout the employee's working period by giving employees a sense of belonging to the organization, love and cherish, bond with the organization through appropriate working environment and activities that support productivity with the following objectives :

1. To encourage all employees to participate in work improvement, quality and work together as a systematic team, know how to solve immediate problems by themselves and know how to improve themselves.
2. To create cooperation in creating work to meet the target quality by searching for weaknesses and finding the root cause in order to fix, improve and plan the quality systematically.
3. To create incentives for compensation and/or honor certificates to employees who participate in beneficial activities and create value for the organization.
4. To jointly care for the environment and create something good for stakeholders.

Details of the activities

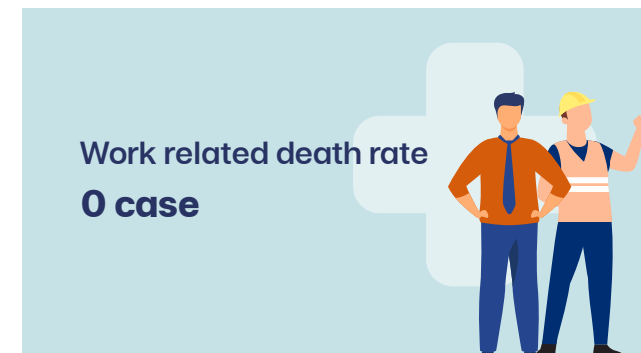
- | | |
|------------|-----------------|
| 1. Sort | 2. Set in order |
| 3. Shine | 4. Standardize |
| 5. Sustain | |

5S is an activity to improve the work of employees by themselves according to the principle of **“Sort, Straighten, Shine, Standardize and Sustain”** in their own workplaces, thus the Company has employees with discipline from the employees' conscience, making the workplace environment clean, tidy, safe and has a proper waste management, create a balance with the environment and generate income for activities to improve activities. The procedure also generates income that can be used to improve the activities. The Company also added 1 more S to the activities, Safeguard Environment, meaning that the activities shall take into account the conservation of environment, not only the Company itself. Through the adoption of 3Rs, which are Reduce, Reuse and Recycle, the Company intend to efficiently utilize resources and reduce unnecessary waste.

In addition, the Company also creates incentives by awarding compensation and honor certificates to the top 3 scores from the 5S assessment in order to promote discipline about **“Sort, Straighten, Shine, Standardize and Sustain”** among employees to benefit the organization and employees volunteer in doing good deeds.



Results of Safety, Occupational Health and Working Environment Management



Record of Accidents of Employee and Contractor

Company	Number of time-off accidents of more than 3 days (case)				Number of time-off accidents of more than 1 day (case)				Number of consecutive accident free days (day)				LTIFR			
Year	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022
GKA	1	0	0	1	-	-	1	2	133	421	26	86	-	0	0	0.36
GKP	0	0	0	0	-	0	0	3	1,846	2,134	2,416	2,707	-	0	0	0
WED	0	0	0	1	-	-	0	0	1,098	1,463	1,828	2,105	-	0	0	0.36
GNP	0	0	0	0	-	-	0	0	646	1,011	1,376	1,741	-	0	0	0
KWE	0	0	0	0	-	-	0	0	560	925	1,290	1,655	-	0	0	0
FEC	0	0	0	2	-	0	1	0	560	365	324	220	-	0	0	0.72
GPD	0	-	-	0	-	-	-	0	730	-	-	365	-	0	0	0

Customer Relationship Management

Target in 2022	Performance in 2022
Percentage of overall customer satisfaction of not less than 90.00	Percentage of customer satisfaction 94.17
None Number of complaints about products and services	None Number of complaints about products and services

The Company giving priority to the quality of life of the customers and focus on clean energy production for all groups of customers to access such as government sector, private sector and all citizen because clean energy is a key to drive for net zero emission to low carbon society in order to decrease effect to the environment sustainably. Moreover, the Company developed product quality, increase the production efficiency, responsible distribution and services and giving precedence to present customers and to create new customers by develop technology and innovation for integrated power system with environmentally friendly to develop the infrastructure sustainably along with the good quality of living for all group of customers because the Company believe that **“Energy is the fundamental right for all human”**.

Customers relation management guideline

The Company intent to develop for **“good living quality of customers and being energy partnership with our customers”** with intention to develop for better living quality and environment not only for satisfaction but including the quality of living of the users being develop for better. Therefore, the Company **cooperate with various business alliance** both domestic and international by created the integrated power system, problem mitigation and reduce the unequal to access to clean energy, for all Thais and all business organization ability to access to the clean energy with **good living quality along with good environment**.

The Compnay manage relationship with customers cover all group of businees as One Stop Service, for energy sector include production of equipments, construction, engineering, clean energy and hemp and cannabis business for medical purpose to government sector, state enterprise, major private sector and retail customers that the Company significantly concern, for the effective purpose of energy usage both industry sector and household sector, the Company plans for manage relationship with each group of customers as follows :



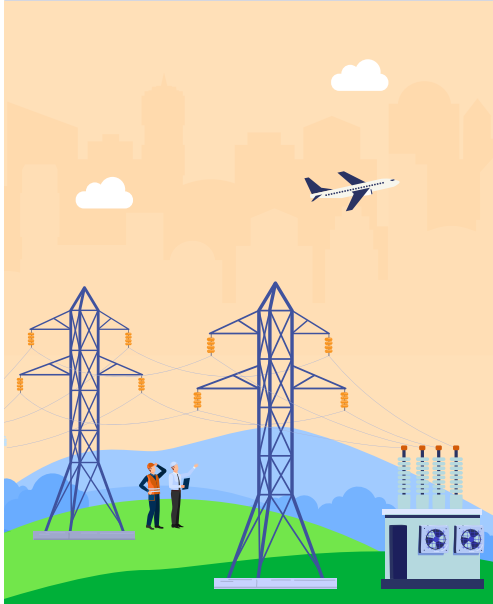
Renewable Energy Business

- Focus on product and service efficiency with new production techonolgies to be able to generate electricity with quality and stability.
- Develop before and after sales services to meet customers' requirement for highest satisfaction form products and services.
- Reduce the accessibility difficulty to clean energy for all group of customers and being parts of social support for low carbon emission to Net Zero emission.



Integrated Engineering and Turnkey Business

- Focus on efficient construction and services that meet the standard, with least project operating time and comply with the condition.
- Apply technology and innovation in management processes and operations.
- Develop new communication and public relations channels to reach all group of customers.
- Provide consult and recommend both before and after service professionally.



High Voltage Equipment Business

- Prompt response to customer needs to ensure satisfaction and good customers experience to entice customers to continue using the Company's services and with trustworthy.
- Customers visit regularly and support customers' activity.
- Assist customers in identifying new products for testing to resolve electrical problems and business opportunity.



Ecosystem Business Platform & Innovation

- Focus on developing new technologies and innovation to improve the quality of life and meet all group of customers' requirement.
- Develop sales/marketing/public relations channels to reach more diverse customer base.
- Decrease problem and promote access to clean energy for customers to access to clean energy as the Company believes that energy is a fundamental human right.



Hemp and Cannabis Business

- Focus on products and service efficiency development through the use of new manufacturing technologies in response to the need to maintain people's health through the use of natural products.
- Produce hemp and cannabis in accordance with GAP and GMP standards in order to expand into a variety of products that improve consumers' quality of life.
- Develop sales / marketing and public relation channels to reach a more diverse customer base.

Customer Relationship Management

The Company continuously develop and improve services to reach diverse of customers need through step and activities such as developing sale channels, increase fast communication channels and prompt resolution to problem, also support all customers activities as follows:

Product Quality Standard and Safety Standard Certification



ทดสอบผลิตภัณฑ์ ให้เป็นไปตามมาตรฐาน
สินค้าที่กำหนด (LPS/EGAT)



International
Electrotechnical
Commission

ได้รับการรับรองผลิตภัณฑ์
ตามฐานสากล (UL+IEC)



จีนะเบียน มอก. สมว. อุปกรณ์ใหม่



9001 - 2018

ระบบบริหารงานคุณภาพ
ตามมาตรฐานสากล



ISO 14001:2015

ระบบการจัดการด้านสิ่งแวดล้อม

TIS18001 และ
BS OHSAS 18001

มาตรฐานระบบการจัดการ
อาชีวอนามัยและความปลอดภัย

มาตรฐานระบบการจัดการ
อาชีวอนามัยและความปลอดภัย



ISO 17025
CERTIFIED

ระบบคุณภาพห้องปฏิบัติการ
ตามมาตรฐานสากล





Product and Services Consulting and Testing

Produce, procure and distribute equipment for electrical systems cover all steps for distributing electricity from power plant to end users, also providing engineering services for construction the integrated renewable power plant with aim to become lead company with efficient, modern and integrated construction and electrical system installation service, as a result the Company seek for new technologies and innovation for efficient production and to control at all steps for highest customers satisfaction. The Company continuous provide consultation and inspection to customers for installation, system inspection and electrical equipment with customer.

ONE STOP SERVICE with GRoof Solar Roof

Assist customer for energy cost saving base on professional electrical engineering for customers to be confidence in using clean energy, also develop integrated standard cservices as follow :



Installation warranty

2 years warranty on international standard installation with 2 times maintenance per year



Full services

Professional consultant with professional engineer, decide and installation services



Worthy, Fully and non-Complex permission documents

Assisting to prepare documents permission for solar roof installation with related agency



Quality Roofseal, no worry for roof leakage

GRoof using Roofseal from TOA for prevent leaking and 100% waterproofing

Develop online market for electrical equipment and solar equipment

Developing e-commerce website GODUNGFAIFAA.com for electrical and solar equipment, this platform provide buyer and seller within one place for their convenience for both retail customers and business customers.



SMART FARMING Product with clean and non contamination

The Company focus on the important of the plantation methods with 3 main direction of quality control with trusted standards for cleanness through air shower before enter into the greenhouse, 24 hours security system for both indoor and outdoor greenhouse, using popper and using RO water system for hemp and cannabis plantation, the fertilizer that Grower, our professional choose were appropriate with each type result for the high quality medical grade hemp and cannabis. Customers and interested person site visit at greenhouse and extraction plant, in 2022 Deputy Prime Minister,



Minister of Public Health and Minister of Public Health of Myanmar visited the CBD extraction plant for hemp and cannabis for medical purpose at Huai Bong Subdistrict, Nakhon Ratchasima.



Supporting customers relationship activities
 sponsoring sportwear for PEA NE 3 football match
 (VIP match)

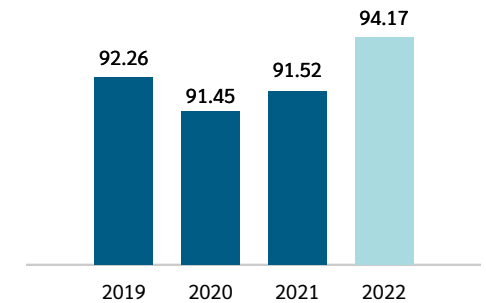


in year 2022 Central underground cable team
 supporting bowling match, PEA NE 1 (Central)

Performance of Customers Relationship and good Experience

Performance of customers relationship and good experience in 2022

**Percentage of
 customer satisfaction
 94.17**



In accordance to the customers relations management and experience to among diverse group of customers, the Company assess customers satisfaction for development / improvement in the future. In 2022, customer satisfaction resulted for 94.17% which accomplished the target.

Survey Topic	Scores (%)
Prompt price offer	93.65
Providing product informaiton	94.23
Prompt resolution to problem	92.10
Cjovenient to contact	94.37
After sales service	94.73
On-time delivery	93.21
Packaging and logistic quality	93.31
Product Accuracy	94.30
Overall satisfaction with the Company	97.66
Average	94.17



Community and Social Responsibility

Target in 2022	Performance in 2022
Overall community satisfaction and engagement not less than Percentage 80.00	Overall community satisfaction and engagement Percentage 74.94
None Case of significant complaints on community issue	None Case of significant complaints on community issue

The Company is committed to promote coexistence with the community by creating friendship and helping each other as **“Good neighbors”** to develop and strengthen the community, encourage people in the community to have a good quality of life, build community engagement to explore needs and expectations, and strengthen mutual understandings. As well as, checking, following up, and managing the impacts that may arise from the Company’s operations, and giving importance to the exchange of knowledge and experiences between individual and agencies to create a good environment. The Company also recognizes the importance to participate in the development of communities and society by cooperating with agencies and educational institutions in organizing activities that are beneficial continuously, as well as, providing budget support for organizing activities. Including, sending employees to participate in activities organized by the community. In addition, the Company is also committed to business development to create clean energy that is accessible to everyone in society, especially in the current situation that the weather has changed dramatically and affecting the livelihood of people in society, directly or indirectly. For that reason, **“Clean energy”** is an important factor and a means of survival in promoting and developing a good life for society, and ready to move towards a low-carbon society.

Framework of Community and Social Responsibility



the Company’s policy

- Operating business under good corporate governance principles with good governance and transparency.
- Aiming to be one of the leaders in renewable energy business and integrated electrical systems to step forward firmly into the future.
- Assessing risks in all dimensions to build credibility and trust with stakeholders.



“not only the energy, we care” concept

- Building friendship and helping each other as “Good neighbor” towards the community and society.
- Developing clean energy to reduce disparity, and creating good quality of life for society.
- Managing to reduce the impacts that may arise from the Company’s operations.
- Promoting creative activities and developing social quality sustainably.



Operational Goals

- Communities and society have no complaints against the Company’s operations.
- The Company and the community have a good relationship in organizing various activities together.
- Be a reliable organization. Friendly and approachable.
- Creating stability for a low-carbon society with clean energy.

Operation Related to Social Responsibility



Community/Society Area Level
Surrounding the Business
 such as communities surrounding renewable energy power plants, office and factories



General Area Level
 such as agencies/communities in area that are not related to the Company or as a whole society

The Company gives back to the society along with taking care of the environment by having operational guidelines that are divided into 2 target groups according to the area level **1) Community/Society area level surrounding the business**, such as communities surrounding renewable energy power plants, communities surrounding the office and factories **2) General area level**, such as agencies/communities in areas that are not related to the Company or as a whole society. In addition, there are 3 ways to promote and develop the society, consisting of **Create a learning society, Promote a good quality of life, and Support activities and build community engagement.**

Create a Learning Society



Promote learning resources for renewable energy power plants

The Company recognizes the importance of education, knowledge enhancement, as well as, being a learning organization for educational institutions, students, teachers, organizations and surrounding communities who are interested in renewable energy power plants to visit and study visits solar power plants and wind power plants in order to expand their knowledge, further study and spark ideas on renewable energy development and application in daily life.



In 2022, there were organizations from both the government and private sectors who visited renewable energy power plants in the amount of 5 groups, totaling 148 people.

Sharing views on building cooperation towards a low-carbon economy

The Company operates integrated energy business and is committed to pushing clean energy to become a fundamental right that everyone can access and the main energy to drive the world and Thailand to grow sustainably. Accordingly, the Company is ready to support and promote all parties, departments, and everyone to realize their responsibility towards the world and jointly drive the country towards a low-carbon economy by using its social media and social networks to create and share knowledge, raise awareness, and promote social responsibility. In 2022, **Ms. Sopacha Dhumrongpiyawut, Chairman of the Executive Committee** jointly shared views on **How to move together towards a low-carbon economy** at **Shell Forum 2022**



Decarbonization : The Journey towards Low-Carbon Economy. Due to energy transition and solving environmental problems are urgent tasks of the world and one that must go hand in hand. Although increasing the ratio of clean energy production in the electricity network system is important, but it is only one of the ways to push the country towards net zero emissions since assistance from many sectors in co-creating an ecosystem that supports the behavior of living in a low-carbon society is still needed because this is a mission that requires cooperation from the national level, industrial level to household level. At present, the Company has moved forward to increase access to clean energy as much as possible by creating the Energy x Finance model together with strong partners in various businesses.

GUNKUL SPECTRUM ENERGY CLASSROOM

The Company has also built a learning society through the dissemination of information on the Facebook page of GUNKUL SPECTRUM on the topic **ENERGY CLASSROOM, ENERGY UPDATE, NEWS UPDATE and ENERGY VOCAB**, which collect content about climate change awareness, and the direction and importance of clean energy, which is an important factor that will drive society towards a reduction in greenhouse gas emissions and mitigate the impact of global warming.



GUNKUL SPECTRUM
PAGE

Promote a Good Quality of Life

The Company takes part in improving the quality of life of the community through supporting various projects, whether in terms of promoting well-being, such as donating medical equipment to hospitals and supporting budget to support the spread of COVID-19; in terms of education, such as granting funds to promote youth education; and in terms of quality of life and well-being, such as promoting job creation and creating careers for people in society. In 2022, there were activities that promote good quality of life for people in society as follows :



Scholarship support to Wat Noi Noppakhun School

Management representative gave scholarships to Wat Noi Noppakhun School to support the development of educational quality and help underprivileged students to have the opportunity to pursue higher education in accordance with the the Company's objectives, which is committed to promoting coexistence with the community, helping each other as "Good Neighbors" to develop and strengthen the community. In addition, the support of youth education is an important foundation for building a strong and sustainable society.



Contributions for the purchase of medical equipment to the Faculty of Medicine Vajira Hospital, Navamindradhiraj University

The management team made a donation to support the purchase of modern medical equipment for the Faculty of Medicine Vajira Hospital, Navamindradhiraj University, with the intention of increasing the efficiency of treating patients and promoting the development of medicine so that people have the opportunity to receive better treatment.



Joined as a guest speaker at Rajamangala University of Technology Phra Nakhon

Executive representative joined as a guest speaker on the topic "Which lifestyle resonates with the workplace?" to introduce working skills needed in today's era, encourage all new graduates to make career choices that match their aptitudes, interests, personality and skills, and in consistent with the needs of the organization, as well as, to be able to work efficiently.



Supported HomePro Fun Walk for Children with Wide Smiles with the Children's Hospital Foundation

Management representative donated money to support the activity "HomePro Fun Walk for Children with Wide Smiles with the Children's Hospital Foundation" with business partners, Home Product Center Public Company Limited, to show cooperation in operating business with social responsibility by contributing to support the purchase of equipment for treating children with mental and motor disabilities through Survive to Smile project, Children's Hospital Foundation, Chaloe Phra Kiat Building.



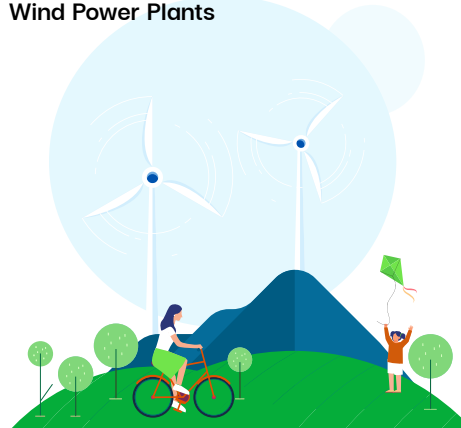
Supported the establishment of a waiting center for children and youth in the area of the Dusit District Office.

Management representative sponsored the budget to the Dusit District Office in the operation of establishing a Community Isolation (CI) for children and youth aged 5-11 years in the community that are infected with the Coronavirus 2019 to have a place to isolate children and youth who are infected in the community and unable to home quarantine to stayed at the waiting center.

Support Activities and Promote Community Engagement

The Company places importance on co-existence with the community by creating friendship and helping each other as good neighbors. Therefore, the community is encouraged to participate in self-development to become a strong and self-reliant community. In addition, the Company focus on caring and supporting various activities of communities around the organization regularly, divided into communities surrounding wind power plants, communities surrounding solar power plants, and communities surrounding office and factories. In 2022, the Company has supported communities' activities as follows :

Communities surrounding Wind Power Plants



Supported phone and phone signal booster

The Company's representatives supported phone and phone signal booster to Ban Huai Bong School, Ban Huai Bong Subdistrict, Dan Khun Thot District, Nakhon Ratchasima Province.



Supported Ban Sap Sanun women's capital group

The Company's representatives participated in group activities of Ban Sap Sanun women's capital group, Ban Huai Bong Subdistrict, Dan Khun Thot District, Nakhon Ratchasima Province.



Development of Huai Bong Reservoir

The Company's representatives donated money to support the development of Huai Bong Reservoir to develop into a natural conservation tourism destination.



Supported food and drinking water for the road construction project

The Company's representatives donated food and drinking water for the road construction project to Ban Sap Nam Thip and Ban Sa Nga Pattana communities.



Supported solar cell street lamp

The Company's representatives donated money to support solar cell street lamps to Ban Huai Bong community for public benefit.



Sponsorship of the Huai Bong Leadership Football Team

The Company's representatives donated money to support the activities of football competitions of village chiefs, village headmen, sub-district doctors, assistant to the headman, and sub-inspector of Nakhon Ratchasima Province.



Supported forest reforestation activities

The Company's representatives participated in reforestation activities and jointly promoted reforestation to replace degraded forest areas at Ban Khok Saad, Huay Bong Subdistrict, Than Khun Thot District, Nakhon Ratchasima Province.



Supported activities for leadership sports competition

The Company's representatives sponsored beverages in the Leadership Sports Competition at Sila Ruam Samakkee School.



Supported activities for the village headman's day

The Company's representatives participated in and supported the budget for the activities of the village headman's day of Dan Khun Thot District, for the year 2022.



Supported activities of walking, running, cycling and visiting the windmills

The Company's representatives donated money to support the 1st walking, running, cycling, and visiting the windmills activities at Luang Pho Khun Parisuttho High School.



Supported sports activities to build unity

The Company's representatives donated money to support sports events to build unity in the community, Don Mueang Cup No.18, at Ban Don Mueang School.



Supported the study visit project for eco-tourism

The Company's representatives donated money to support the budget for the study tour project for eco-tourism in Chanthaburi and Trat provinces of Huai Bong Subdistrict Leadership Council to increase knowledge of sufficiency economy and eco-tourism for leaders to apply in their own territories.



Supported the craft study tour project

The Company's representatives donated money to support the budget for studying handicrafts in Chanthaburi province of Huai Bong Women's Potential Promotion Fund.



Supported youth sports activities

The Company's representatives donated money to support the national youth sports competition, Sports Association of Nakhon Ratchasima Province.



Joined Thod Phapa (Buddhism's robe-offering ceremony)

The Company's representatives participated in the merit-making of Thod Phapa ceremony to contribute to the purchase of an ambulance with medical equipment by giving to the Huai Bong Rescue, Rescue Volunteer Office, Hook 31.



Promoted Ban Subsanun Women's Empowerment Fund

The Company's representatives participated in the baking activities of Ban Subsanun Women's Empowerment Fund.



Supported activities to create unity in the community No. 20 Huai Bong Games

The Company's representatives donated money to support the 20th Sports Day to build unity in the community, Huai Bong Games, at Huai Bong Subdistrict Administrative Organization.



Participated in the Kathina Ceremony, Wat Sa-Nga Wanaram

The Company's representatives co-hosted the Kathina Ceremony to contribute funds to build a multi-purpose building dome at Wat Sa-Nga Wanaram, Nong Nam SaiSikhio District, Nakhon Ratchasima.



Supported Loy Krathong Festival activities

The Company's representatives donated money to support Loy Krathong Festival activities for the year 2022 at Huai Bong Subdistrict Administrative Organization.



Supported Loy Krathong Festival activities

The Company's representatives donated money to support the Loi Krathong tradition project for the year 2022 at Nong Nam Sai Municipality.



Supported internal sports activities

The Company's representatives donated the budget for internal sports activities "Huai Bong 65" at Huai Bong School.



Concrete sewer laying project

The Company's representatives donated money to the team to install the pipe, and build a concrete drainage ditch along the edge of the public road to reduce damage to farmland from the event that water spilled into the farms and gardens of the villagers.



Internal sports activities, Ban Nong Krad Noi School

The Company's representatives donated money to support snacks and beverages for internal sports activities of Bannonggradnoi School.

Communities Surrounding Solar Power Plants



Supporting the education of Ban Pa Daeng School (Rat Ratsan)

The Company's representatives supported the budget for educational use in hiring school teachers of Ban Pa Daeng School (Rat Ratsan), Moo 7, Tao Pun Subdistrict, Song District, Phrae Province.



Supported the budget for football uniforms

The Company's representatives supported the budget for cutting sports uniforms for youth groups to support the sport of Amphawan Village, Moo 8, Tao Pun Subdistrict, Song District, Phrae Province.



Supported school supplies

The Company's representatives supported the budget to the Director of Wat Rang Wai school, Moo 2, , Rang Wai, Phanom Thuan, Kanchanaburi to support school supplies for the year 2022 at Rangngern Solution Company Limited.



Financial support for drinking water at public service points

The Company's representatives supported the money for drinking water for the year 2022 at public service points to participate in CSR activities with the community at Thung Khwao Subdistrict Administrative Organization, Thung Khwao Subdistrict, Mueang Pan District, Lampang Province.



Supported fitness equipment

The Company's representatives supported fitness equipment to Plaina Wittaya school and Banjong school, Thung Khwao Subdistrict, Mueang Pan District, Lampang Province.



Financial support for road repair work

The Company's representatives donated money to support road repair work in 2022 to the village headman to participate in activities with the community at the village headman's office, Moo 4, Thung Khwao Subdistrict, Mueang Pan District, Lampang Province.



Supported Children's day activities

The Company's representative supported money to the Director of Wat Rang Wai school, Moo 2, Rang Wai Subdistrict, Phanom Thuan District, Kanchanaburi Province, to support organization of 2022 Children's day activities.



Supported Songkran activities

The Company's representative donated the budget for organization of 2022 Songkran activities, Kladluang Subdistrict.



Supported Children's day activities

The Company's representative donated money to the Director of Wat Rang Wai school, Moo 2, Rang Wai Subdistrict, Phanom Thuan District, Kanchanaburi Province, to support organization of 2022 Children's day activities.



Supported Children's day activities

The Company's representatives donated the budget for organization of 2022 Children's day activities of Kladluang Subdistrict, to the President of Kladluang Subdistrict Administrative Organization.



Scholarship support

The Company's representatives participated in village activities, Group 3, and gave scholarships to students in the village.



Supported village activities

The Company's representatives gave money to support the village for the year 2022 to the headman of Village 1 to participate in CSR activities with the community.



Supported lighting lamps

The Company's representatives supported 10 lighting lamps to the headman of Moo 1 to participate in CSR activities with the community.



Supported football matches

The Company's representatives supported money for football matches to 7 persons, a project that help bedridden patients.



Supported Children's day activities

The Company's representatives supported the budget for organization of 2022 Children's day to Ban Huay Rai school.



Supported lighting lamps

The Company's representatives supported 10 lighting lamps to the headman of Moo 1 to participate in CSR activities with the community, Ang Thong 2.



Donated survival bags to villagers

The Company's representative donated survival bags to villagers, Moo 3.

Communities surrounding office and factories



Provided gifts to support Children's day activities

Management representatives provided gifts to various agencies in the nearby community to support 2022 Children's day activities. With the intention of encouraging society to realize the importance of children, participate in development and promotion of children's growth appropriately and with quality, as children are valuable resources of the country and will be an important force for further development of the country.



Supported the purchase of sports equipment

The Board of Directors' representatives jointly donated the budget for the purchase of sports equipment to Thairath Vittaya 65 (Wang Sai Ting) Prachuap Khiri Khan Province.



Supported the purchase of sports equipment

The Company donated solar panels to the Border Patrol Police School in Prachuap Khiri Khan Province.



Supported retirement activities at Sam Sen station

Management representative donated money to Samsen Police Station for organization of 2022 civil service retirement activities to show compassion to the retirees who are valuable personnel and made contributions to society, who should be honored and given importance to. As well as, showing the retirees morale and encouragement to continually create benefits for the society.



Supported medical equipment

Management representatives donated medical equipment to Wat Photharam Health Promoting Hospital, Chainat Province.

Operational Results related to Community and Social Responsibility

2022 Operational Results related to Community and Social Responsibility

Amount of Supporting Budget
5.6 Million Baht



Number of people who came by to study learning resources of renewable energy power plants **148 Persons**



Overall scores of satisfaction and community engagement
 Percentage **74.94**



Case of significant complaints on community issue
0 Case



Innovation for Social Development

Business and innovation development are important to business operation amid rapid change of direction and world megatrends, whether it is the impact from climate change or technology disruption that are becoming more severe day by day. For that reason, business adaptation and development is important in response to and handle such changes and challenges. For over 40 years, the Company has been developing its business operation continuously, starting from the business of buying and selling electrical equipment (Trading Firm) extending to the production of electrical equipment products (Manufacturer) both medium and high volt, developing to business of integrated renewable energy (Developer, Renewable Energy Power Plant), and is ready to extend its business to total solution engineering and turnkey Turnkey Project, EPC (Engineering, Procurement, Construction). In addition, from the current situation that cutting-edged technology and innovation are important factors to support and drive national development, the Company develops its energy trading business through implementing e-commerce platform under www.godungfaifa.com for buying and selling solar and electrical equipment to create one-stop service and convenience for small retail buyers and business customers. Moreover, the Company has established energy innovation agency or GUNKUL SPECTRUM in order to be prepared for business extension and developing products that meet the demands of new generation consumers. As well as, determining the goal of becoming Thailand's First Energy Trendsetter through creating new source of energy that is indefinite yet tangible in order to be a part of driving the country to clean electrification, as in addition to being flexible in doing business (Organization Resilience), what will enhance sustainable energy for society is creating innovation and finding new business solution to meet the needs of consumers in society and making clean energy to be fundamental right that all consumers can have full access.

Business Innovation Development Guidelines for Social Creation

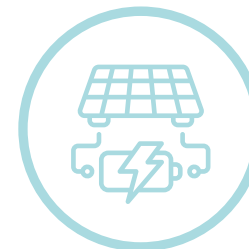
From world megatrends into new dimension of full clean energy management and sustainable business growth, in addition to business development to support modern, sustainable, stable and affordable energy for consumers according to Goal 7 of Sustainable Development Goals (SDGs), another important goal for business innovation development to create social sustainability in economic, social and environmental dimensions is Goal 9, which are infrastructure development to be ready for change, promote adaptation to be a sustainable and inclusive industry, support innovation, create smart energy, develop technology coupled with the use of energy consciously, bring clean energy to household sector, reduce inequality and limitation in various dimensions for all to have full access to sustainable energy in their daily life. The Company has a framework for driving innovation development to create a clean energy society as follows :

- Apply technology with electricity network management (Grid) to be fully adapted to digital grid, as a one-stop service on digital platform that is considered the most intuitive innovation.
- Develop new solution for quality improvement and solving electricity problems in various dimension to eliminate obstacles in use.
- Create new business model, such as Energy-as-a-Service that help consumers to access the usage more efficiently and quickly.

Digital Platform



New Solution



Energy-as-a-Service



Smart City Project for Quality of Life on Smart Energy

As an integrate energy company, the Company is ready to push clean energy, which is soon to be the main energy that drives the world and Thailand, and encourage all parties, agencies, and consumers to be aware of their responsibility towards the world and jointly drive the country towards a low-carbon. The Company develops its business innovation in consistent with the country's electrical system development, Smart Grid, and urban development in form of Smart City, which also manage its business to be competitive in terms of cost, quality, price, and service. In addition, the Company creates Smart Energy, develops Energy-as-a-Service jointly with strong alliances by creating new forms of electrical experiences from clean energy, bringing every lifestyle to 100% use of electricity from clean energy (clean electrification) to change the urban to be Smart City for a better quality of life on Smart Energy. Innovation and technology from collaboration are listed as follows :



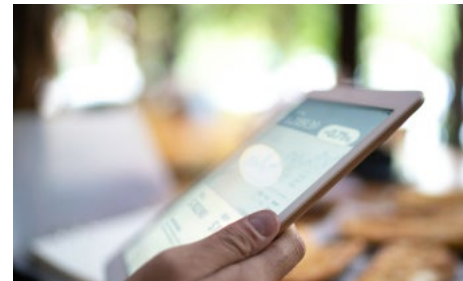
- **Volt Marketplace** First platform in Thailand that enable retail customers to calculate the right size of solar roof for use, discover a qualified solar rooftop installer from a community of installers across the country, compare prices and choose panel brands on their own.



- **Drone Thermal Inspection (Energy solution)** Added a service after installation of solar roof with Energy Solution. In which, the performance of solar roof is inspected by using drones that are equipped with precisely processed high resolution thermal cameras.

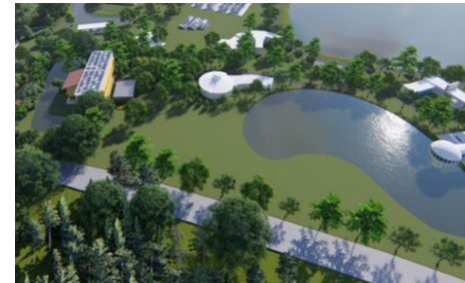


- **Private PPA** Private PPA from Solar Rooftop in condominium and single house projects. Initial costs are not required and customers will receive a long-term discount on electricity bills.
- **P2P Energy Trading Platform** Created Smart Village with solar cell and let the resident try selling and buying electrical energy that are generated in the form of P2P Energy Trading on block chain through specifically-created application.
- **EV Charging Station** Installed EV Charging Station for those living the Condo lifestyle to be able to charge their electric car in their residence continuously. The 2022 goal was to install 100 charger stations.





- **Smart Village** Installed solar rooftop in residential house projects of PRUKSA to pilot clean energy village.



- **Microgrid Service Solution** Constructed a small electrical network (Microgrid) with SGtech, Naresuan University, and Sandbox, a future community model that successfully produces, uses, and manages electricity from 100% clean energy.



- **GODUNGFAIFAA** Established online market for integrated electrical equipment, such as Solar Roof, EV Charger from leading brands in fair prices for everyone to have access to such products at Add energy to cart on website Godungfaifaa.com.

Battery and Virtual Power Plant Project



The Company has collaborated with business partner that is an expert in control systems and power generation, which is also the world's leading battery manufacturer and business partner that is an expert in digital energy platform to get ready for extending its energy innovation portfolio, focusing on the business of developing virtual power plant for energy management and the business of Battery Energy Storage System (BESS) to make them real in Thailand. The Company aims to promote and accelerate clean energy innovation for benefits of electricity users, especially in the era that Solar Roof and electric cars acts as catalysts that existing energy infrastructure must efficiently develop and increase its management capabilities, which virtual power plant is the use of digital technology and communication for management of Distributed Energy Resources (DER), such as Rooftop Solar Power Generation System, Battery Energy Storage System, electric vehicle, which DERs can work consistently like a huge virtual power plant. This enable DERs and electricity users to be a part of managing electrical system of the country. In addition, the Company has a working scope as follows :

1. Proof-of-Concept Test the feasibility of engineering technology that is related to Battery Energy Storage System, Demand Response, and Virtual Power Plant Platform
2. Market assessment and feasibility study Study and develop other related-energy business
3. Collaborative Launchpad Collaboration in research and development (R&D) and knowledge-sharing space

Virtual Power Plant Platform for Energy and Carbon Management of Prosumers and Electricity Users in Provincial Electricity Network

Moreover, the Company see the potential of customer groups that are able to generate electricity from clean energy in a huge amount and that some amount of electricity generated exceed the users' requirement. At the same time, it is found that there are customer groups who have demand for electricity generated from clean energy at an affordable price, coupled with the response to the policy to promote the use of renewable energy and the goal of carbon emission reduction in the country's energy sector, accordingly, the Company has applied for ERC Sandbox project Phase 2 to show the intention of participating in driving the country to transit energy industry into the use of clean energy (Energy Transition) sustainably, by integrating digital technology to demonstrate its leadership position in energy industry transition to be suitable with business in digital era. The Company has a concept of platform development that combines business model to increase the efficiency of management in long-term period and create benefits for related parties in all sectors, such as electricity generator, electricity users, and electrical network administrators in terms of costs and management without causing impacts towards network stability.

Working Principle of Virtual Power Plant Platform

Such platform will serve to gather electricity users who have the potential to generate electricity from clean energy (prosumer) and general electricity users (consumer) into the platform. The aggregator will gather and buy electricity from prosumers to manage within platform and sell to consumers who have demand for electricity at an affordable price or electricity generated from clean energy. Moreover, the aggregator will supervise access points between prosumer and connection point not to affect the stability of the connection point, summarize electrical unit that are bought and sold through the platform, report to persons responsible for supervising connection point, and pay wheeling charge to offset the opportunity cost and costs occurred to persons responsible for supervising connection point.

Benefits from Development of Virtual Power Plant Platform

Having a prototype platform for electricity management for electricity users and those who have the potential in generating electricity from clean energy will lead to the dissemination of such prototype platform and creation of new knowledge to the public to expand the results and wider benefits for the public. Moreover, it will take away the lesson learned from project operation into suggestion on policy and related rules and regulations, as well as, being a foundation for further development and full expansion of virtual power plant and Smart Grid. In addition, it also support free competition in energy business to encourage and drive the country to achieve its goal of increasing renewable energy proportion in energy system and the goal of achieving Carbon Neutrality Net Zero Emissions.

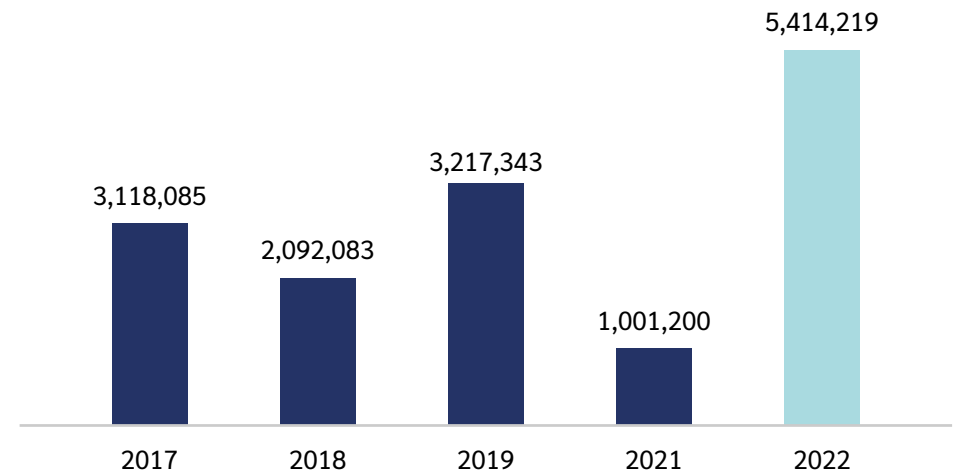
Group Activities for QCC Quality Improvement

In addition to business innovation development, the Company also place importance on innovation development to improve and develop the quality of production process in order to create new technology and innovation for social development and solve environmental issues. In 2022, the Company has organized group activities for QCC quality improvement to create participatory work in the development and improvement of quality of work in various fields in the organization, totaling 44 stories (data of first half of year) as follows :

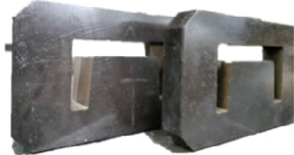
- Proposed guideline to reduce operational procedures totaling 14 stories
- Proposed guideline for reduce working time totaling 12 stories
- Proposed guideline to increase work efficiency totaling 18 stories

Statistics of group activities for QCC quality improvement and received quantitative results

Year	Number of stories	Quantitative Results
2018	46	Reduce costs by about 3,118,085 baht
2019	46	Reduce costs by about 2,092,083 baht
2020	47	Reduce costs by about 3,217,343 baht
2021	22	Reduce costs by about 1,001,200 baht
2022	44	Reduce costs by about 5,414,219 baht



Example of Group Activities for QCC Quality Improvement in Year 2022

No.	Details	Work piece photos	Before improvement	After improvement
1.	Injection and filling process, and fixing FLEXIBLE SNAP-TIE		<ul style="list-style-type: none"> Worked in 2 steps Production amount 560 pieces/ day 	<ul style="list-style-type: none"> Worked in 1 step Production amount 1,050 pieces/ day
2.	Increased the size of gutter blade for cutting channels steel		<ul style="list-style-type: none"> Used 2-4 workers to grind 100% 	<ul style="list-style-type: none"> No grinding process
3.	Made a jig to hold the work piece		<ul style="list-style-type: none"> Used 148 seconds/ set Production amount 170 sets/ day 	<ul style="list-style-type: none"> Used 112 seconds/ set Production amount 225 sets/ day
4.	Made 2 shooting jig 2 at a time		<ul style="list-style-type: none"> Used 162 seconds/ set Production amount 156 sets/ day 	<ul style="list-style-type: none"> Used 126 seconds/ set Production amount 200 sets/ day

Result form Business Innovation Development for Social Creation



Results from 2022 Business Innovation Development for Social Creation

GODUNGFAIFAA E-commerce, the energy business innovation that GUNKUL SPECTRUM has collaborated with SCB 10X. The business model came from pain point of consumers in accessing quality and full range electrical system and solar products from leading brands on online platform. GODUNGFAIFAA has received these 2 awards from Huawei Asia-Pacific Innovation Congress 2022 at Singapore :



- Excellent Case-sharing Award 2022 (B2B2C business model platform, as the first out of 5 Asian countries in Asia Pacific)
- Business innovation Award 2022



Moreover, GODUNGFAIFAA also received Elite Reseller Award 2022 at Huawei Fusion Solar Ecosystem Partner Summit. This reflects responsible operations and recognition from global business partner.



For the Sustainable Environment

The Company is committed to manage and reduce the environmental impacts related to business operations in order to manage according to its strategies “Create” “Alleviate” and “Share” in line with the country’s goals, adapt, and response to climate change risks, whether it is physical risk that cover disasters and crises, as well as, transition risk arising from a rapid change in policies, regulations, and technology that affect the business operations and cause the impact of greenhouse gas emission. As business operations must take into account environmental factors and climate change is an important issue that must be seriously addressed, therefore, the Company has established operational guidelines for environmental quality and biodiversity management, support, improve, and seek ways to use resources and energy efficiently, as well as, assessing management to reduce waste and greenhouse gas emissions so that the Company can response to climate change in a sustainable

manner. Moreover, the Company is also preparing to move towards low carbon society by expanding its clean energy port, developing energy storage system, creating business growth coupled with creating stability for the smart grid system in order to be a part of a strong starting point that transform and drive sustainable environmental solutions because “clean energy” is the way to survive. In addition, the energy sector, the public sector, and the private sector must be key forces to a low-carbon economy transition, by using more of environmental friendly technology to balance the world’s climate, build a sustainable economy, and reduce greenhouse gas emissions to net zero emissions.





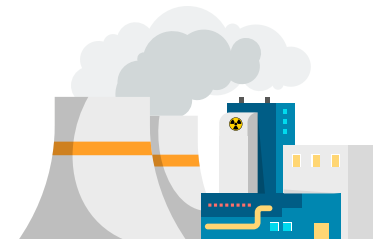



Environmental Responsibility





The Company has continuously developed to deliver the best products and services to customers, improve the quality of life for people in the society, and responsible for the environment, including striving to develop sustainable business growth to help mitigate the effects of climate change. Therefore, the Company has established Environmental and Climate Change Management policy to show the intention of environmental responsibility, including to serve as a guideline for executives and employees at all levels of the Company to operate business in conjunction with continual environmental care and management, as well as expanding its investment in renewable energy, both solar energy and wind energy, which contribute to reducing pollution and the impact of global disturbances caused by climate change. Moreover, the Company has an environmental compliance management system to prepare and develop a proactive action plan to ensure that business operations comply with laws, regulations, policies, standards and requirements related to the environment, and also gives importance to controlling, preventing and reducing environmental impacts by operating according to international standards. The Company's renewable energy business group consists of solar power plants, wind power plant, and high-voltage electrical equipment, which manufacturing, supplying and distributing electrical equipment, energy saving products, and alternative energy. In addition, the Company has established an organizational environmental management system (ISO 14001 : 2015) and preventive and corrective measures to reduce environmental impacts as follows :





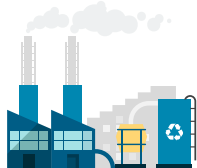

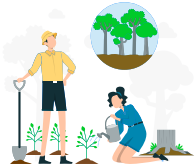



Environmental and Climate
Change Management Policy



Environmental Issue	Impact Level	Preventive and Corrective Measures to Reduce the Impact
 <p>Air Quality</p>	 <p>Low level</p>	<ol style="list-style-type: none"> 1. Measure to control Air Quality Workplace to meet the standards of the Department of Industrial Works or other related standards. 2. Improve and develop environmentally friendly technologies to develop air quality control systems within the factory. 3. Spray water at the point that causes dust in the project area. 4. Do not burn solid waste or others in the project area. 5. Add green areas along the periphery of the project to prevent the spread of dust into the air. 6. Take care and maintain engines, machines or tools that burn fuel and generate exhaust or dust to always be in a good condition.
 <p>Greenhouse Gas Management</p>	 <p>Low level</p>	<ol style="list-style-type: none"> 1. Assess greenhouse gas emissions from corporate activities and verified by the certification authority that meets international standards. 2. Implement a project or activity to reduce the use of resources energy and greenhouse gas emissions. 3. Promote the utilization of resources for maximum benefit and reuse waste for maximum benefit according to the 3R principles. 4. Encourage efficient use of energy and promote the use of renewable energy. 5. Improve and develop production processes and work processes by using environmentally friendly technology. 6. Build knowledge and understanding of greenhouse gas emissions and the impact of climate change, and campaign to encourage employees and all relevant parties to participate in adaptation and behavior change to reduce negative impacts.
 <p>Water Quality</p>	 <p>Low level</p>	<ol style="list-style-type: none"> 1. Provide water-saving sanitary ware such as sensor faucets. 2. Measure the quality of wastewater (Effluent) to meet the standards of the Department of Industrial Works or other related standards 3. Provide a retention pond to collect rainwater that flows into the ground at the construction site. 4. Reuse the water in the retention pond, such as spraying the road to the project entrance. 5. Campaign to encourage employees and all related parties to participate in saving water.

Environmental Issue	Impact Level	Preventive and Corrective Measures to Reduce the Impact
 <p>Drainage System</p>	 <p>Low level</p>	<ol style="list-style-type: none"> 1. Provide a sediment trap before draining water to the outside of the project. 2. Clean the gutter around the project regularly. 3. Control and manage rainwater that falls in all project areas to quickly drain into the gutter around the project, as well as, collecting rainwater as raw water for use within the project or to delay the water before going outside the project. 4. Check the drainage system, water channels around the project, and sediment trap system regularly
 <p>Sound</p>	 <p>Intermediate level</p>	<div> <p>Solar Power Plant</p> <ol style="list-style-type: none"> 1. Do not perform any activity that causes noise outside of the working hours. (8.00 a.m. - 17.00 p.m.) 2. Avoid simultaneously using maintenance equipment that generates high noise. 3. Maintenance of tools and machines to always be in a good condition. 4. Provide noise pollution protection devices, such as ear plugs for employees and operators to wear while working. 5. Provide a rotation of workers working in areas with high noise sources according to law. <p>High-voltage and renewable energy equipment factory</p> <ol style="list-style-type: none"> 1. Install the machine to have an appropriate distance from the factory fence and the community. 2. Regularly maintain and modify various parts of the machine. 3. Make a fence to prevent sound and make a sound barrier around the machine. 4. Conduct a sound evaluation, including measuring the noise value inside and outside the Company in the community area while machine running and downtime to check the sound value to meet the standards required by law. </div> <div> <p>Wind Power Plant</p> <ol style="list-style-type: none"> 1. Check and maintain the machine according to the period specified in the specifications of the equipment to prevent noise caused by the machine. 2. Create a Noise Contour Map after the project commences by using the results of the study to manage the noise environment. 3. Implement according to measures of solar power plant. </div>

Environmental Issue	Impact Level	Preventive and Corrective Measures to Reduce the Impact
 <p>Energy Management</p>	 <p>Low level</p>	<ol style="list-style-type: none"> 1. Carry out projects or activities to reduce energy consumption within the organization, such as turning off lights and unplugging electrical appliances every time when finished using or no job. 2. Campaign to encourage all employees and related parties to participate in energy saving.
 <p>Non-Hazardous Waste Management</p>	 <p>Low level</p>	<ol style="list-style-type: none"> 1. Provide 4 types of waste storage tanks, comprises general waste, waste that can be recycled, hazardous waste, and organic waste, which will be stored in a container that clearly identifies the type of waste with a closed lid. 2. Collect and send waste to treat/ dispose properly. 3. Collect reusable waste, forward for recycling and reuse for new use.
 <p>Waste management from production process</p>	 <p>Low level</p>	<ol style="list-style-type: none"> 1. Make a waste list to classify and identify types, including determining methods of elimination/ treatment properly. 2. Provide a closed and secure storage space for storing electrical equipment, damaged solar panel, including waste from other types of production processes, and sent to the disposal company to dispose of properly as required by law. 3. Training on how to store, collect, and dispose of waste from the production process.
 <p>Biodiversity</p>	 <p>Low level</p>	<ol style="list-style-type: none"> 1. Against Deforestation. 2. Conduct Environmental Impact Assessment (EIA) to assess the impacts and risks from project implementation that will affect the integrity of environment, the integrity of ecosystem, including changes that will occur to nature. 3. Promote reforestation to conserve natural resources and maintain the balance of the ecosystem.

Greenhouse Gas Emission Management

During the crisis the world are facing from climate change the effect to the society, economy and all the living things on earth therefore, the adaptability to cope and mitigate the affect from the climate change problem is not only for the head of the state or business sector but it is close to everyone to be adaptable in their daily life for problem solving to achieve the goal for every countries to mitigate greenhouse gas to sustain the world temperature not to be over 1.5-2.0 degrees Celsius to be happened in this century and to achieve the purpose of the Paris Agreement of the United Nations Framework Convention on Climate Change, COP26 and COP27 for being carbon neutral in 2050, Net Zero emission in 2065. As the Company is the leader of integrated energy company in technology and innovation in clean energy that is environmentally friendly, the Company aims to be part in solving the global warming problem seriously to promote the clean energy as the main energy to drive to the low carbon society.

Management strategies to reduce greenhouse gas problems



“Create” to develop renewable energy to replace electricity generating from fossil fuel.

“Contribute” to being part of Thailand to succeed the target on climate change which include target for Carbon Neutrality in 2050 and Net Zero Emissions in 2065 through the development of the renewable energy project and forest plantations for absorbing carbon dioxide.

“Share” carbon credit which are generated from our green projects such as renewable energy and forest plantations for absorbing carbon dioxide to the sectors or any organization that need to compensate with their released of greenhouse gas.

Management guideline to reduce greenhouse gas problems

Strategic Management of “Create” “Contribute” and “Share” in accordance with the country’s objective



Create

- To join energy development project for wind energy, solar energy, solar with battery energy storage system under the Regulation for Procurement of Electricity Generated from Renewable Sources under the Feed-in Tariff (FiT) Scheme 2022-2030 for Power Plants no Fuel Costs as parts of Thailand Power Development Plan (PDP).
- Expand the solar rooftop energy business which is the energy distributed generation (DG) according to Decentralization method under 4D1E scope of policy of the Ministry of Energy.
- Business and innovation development for new energy such as virtual power plant (VPP) to support the procurement of electricity through electric network under the government Third Party Access scheme.



Contribute

- Start the business development on forest plantations to absorb carbon dioxide and to support Thailand purpose for increasing forestry area to reach 120 MtCO₂e of the absorbing of the carbon dioxide.



Share

- Expand the quantity and value of climate asset such as carbon credit, renewable energy certificate (REC) of the Company.
- Joins the customers group to introduce carbon management service to help customers reach their purpose for climate change.

Management of Greenhouse Gas Emission Reduction of the Oorganization

Target in 2022	Performance in 2022
Percentage of decreased of Greehouse gas emission of the organization 5.00	Percentage of increased of Greenhouse gas emission of the organization 4.58

Remark : 1) The Company target and performance in 2022 covered only head office and renewable energy business.

2) Performance in 2022 was factored by an increase in the number of employees. Increasing the amount of greenhouse gas emissions, including the year 2021 used as a base year for calculations during the COVID situation, affects the use of comparative calculations.

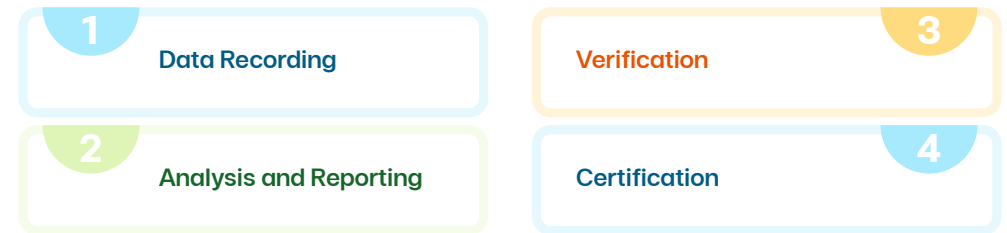
The Company aims to take part in solving the global warming problem seriously apart from developing an innovation in clean energy that is environmentally friendly driving to low carbon society. The Company aims to develop process for reducing greenhouse gas emission from business operation to be able to operate business sustainably and with responsibility by having guidelines to reduce greenhouse gas emissions of the organization as follows :

1. Greenhouse gas emission evaluation

- Establish a committee to conduct an assessment and review the effect of greenhouse gas emissions to develop standards, operational quality, enable the organization to achieve its environmental sustainability goals, and be in line with Thailand's greenhouse gas emissions reduction policy plan and the United Nations' Net Zero Emission target.
- Prepare environmental policies and promulgation to serve as rules and guidelines for internal operations of the Company.
- Campaign to create knowledge and understanding for executives and employees to realize the importance of climate problems.
- Organize activities or projects that promote environmental conservation and continuously help alleviate climate problems within the Company.

2. Disclose the Report of the Greenhouse Gas Emissions

The organization's disclosure of greenhouse gas emissions is an important step to effectively manage and control the amount of greenhouse gas emissions, in consistent with the Greenhouse Gas Management Guidelines of both national and international levels. The Company data preparation process as follows :



In 2022, the Company has assessed greenhouse gas emission from the business processes covering 2 business group which were renewable energy business and integrated engineering and turnkey, head office and covering 15 companies as follows :

No.	Company	Code
Head office		
1	Gunkul Engineering Public Company Limited	GUNKUL
Renewable Energy Business		
2	Wind Energy Development Company Limited	WED
3	Greenovation Power Company Limited	GNP
4	Korat Wind Energy Company Limited	KWE
5	NK Power Sola Company Limited	NKP
6	Solar Energy Society Company Limited	SES
7	Gunkul Solar Roof 1 Company Limited	GSR-1
8	Rang Ngern Solution Company Limited	RNS
9	ECO Thai Energy Company Limited	ECO
10	BMP Solar Company Limited	BMPS
11	Gunkul Solar Power 2 Company Limited	GSP
Engineering and Turnkey Business ⁽¹⁾		
12	Gunkul Power Developmetn Company Limited	GPD
13	Future Electrical Control Company Limited	FEC
14	GPD & TEECL Joint Venture Company Limited	JV_GPD&TEECL
15	Future Power Contruction Company Limited	FPC

⁽¹⁾ Remark : Engineering and Turnkey Business and High Voltage Equipment Business evaluate the greenhouse gas emission in 2022 as the first year.

3. The Method of Greenhouse Gas Emissions of the Organization



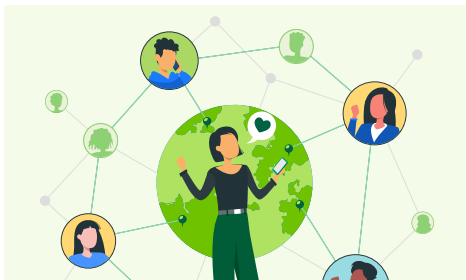
Resource Efficiency

- Promote the maximize use of resources within the organization, have processes to improve operations using high quality technology and innovation to drive the business in accordance with circular economy guidelines.



Clean Energy

- Increase the consumption of clean energy in internal production processes such as solar power generation, including other related clean energy products.



Green Network

- Creates green network with all stakeholders, promoting the creation of a society of environment conservation to develop sustainable management of climate change.

Procedure Reducing Greenhouse Gas Problems

The Company arrange activities to manage to reduce the greenhouse gas problems for business sector driving to Net Zero society and continuously reduce the greenhouse gas emission of the organization. The activities in 2022 as follows :



Carbon Credit

- Climate asset management of the Company
- Study for procedure to registered both for the Company and customers energy project for Carbon Credit and/or Certificate for generating electricity from renewable energy.



Carbon Sink

- Study the possibility of the forestry project for absorbing carbon dioxide through financial return analysis, technical analysis, market analysis and carbon credit registration standard, efficient area for the reforestation and visit the efficient area for data collection, the Company plan for the forestation project both land forest (Green Carbon) and mangrove forest (Blue Carbon).



Carbon Footprint for Organization

- Continue operating Gunkul Zero Waste project for carrying out activities about the reduction of solid waste within the organization such as donation of water bottles for making monks' robes, donation of old calendars for making braille books for the visually impaired.
- Campaign to create awareness on resources and energy efficient consumption within the organization through 8Rs Principles.

Performance to Reduce Greenhouse Gas Emissions

Performance to reduce Greenhouse Gas Emissions in 2022

Performance of Climate Asset

Renewable Energy Certificate
481,778 RECs⁽¹⁾

- Wind Project **332,012 RECs**
- Solar Project **149,766 RECs**

⁽¹⁾ Remark : Include the completed trading and the agreed price with the customer with approval from the executives is under trading process and agreed.

Performance of the Carbon Credit

The amount of Carbon Credit is by-product from generating the electricity expected to be sell after the project being registered

951,192 tCO₂e⁽²⁾

- Wind Project **733,093 tCO₂e**
- Solar Project **218,099 tCO₂e**

⁽²⁾ Remark : Agreed amount and price with the seller is under operation

Performance of Carbon Footprint for Organization

The total amount of greenhouse gas emissions of the organization

5,445 tCO₂e

- Head Office and Renewable Energy Business **2,496 tCO₂e**
- Engineering and Turnkey Business **2,949 tCO₂e**

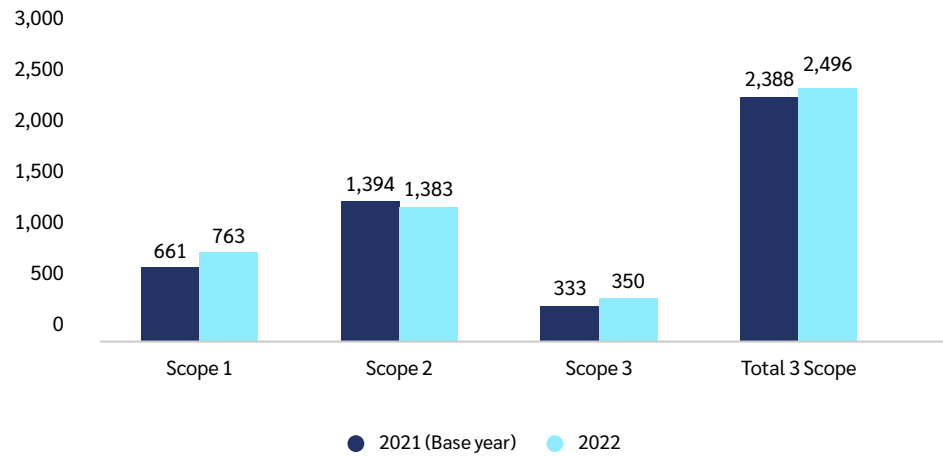
The Company collected corporate greenhouse gas emission data within the specified reporting scope in which such information has been verified by experts from Bureau Veritas Certification (Thailand) LTD. and has been certified for Greenhouse Gas Verification Statement according to measurement review standards and reporting greenhouse gas emission and reductions at the organization level (ISO 14064-1 : 2018) on 14, March 2023 (Head Office and Renewable Energy Business) and 15, March 2023 (Engineering and Turnkey Business) with the amount of greenhouse gas emissions as follows :

Scope	Amount of Greenhouse Gas Emission of the Corporate		
	Head Office and Renewable Energy Business		Engineering and Turnkey Business ⁽¹⁾
	2021	2022	2022
Scope 1 (tCO ₂ e)	660.55	763.00	329.00
Scope 2 (tCO ₂ e)	1,393.99	1383.00	56.00
Scope 3 (tCO ₂ e)	332.24	350.00 ⁽²⁾	2,564.00
Scope 1 + 2 (tCO ₂ e)	2,054.54	2,146.00	385.00
Total 3 Scope	2,386.78	2,496.00	2,949.00
Carbon Intensity (3 Scope : Product)	0.0045 tCO ₂ e/ MWh	0.0054 tCO ₂ e/ MWh	3.20 tCO ₂ e/ MB

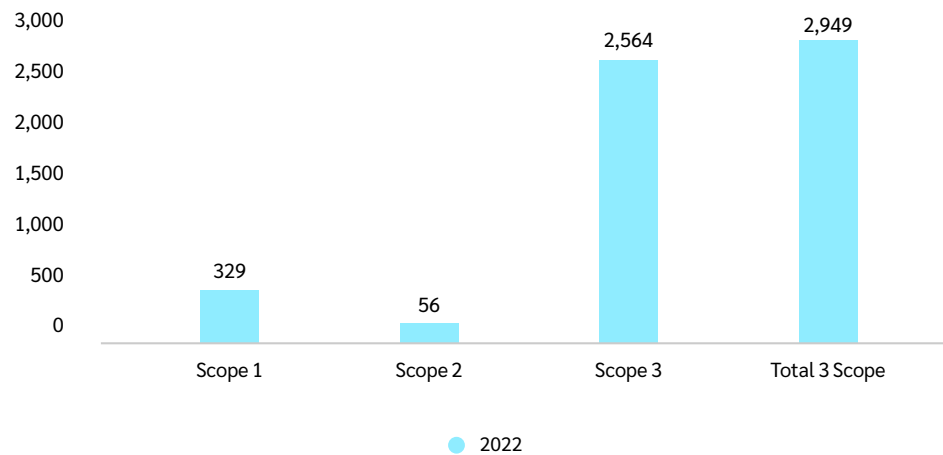
⁽¹⁾ Remark : Engineering and Turnkey Business and High Voltage Equipment Business evaluate the greenhouse gas emission in 2022 as the first year.

⁽²⁾ Remark : In 2022, the reporting of the data used for calculation of the greenhouse gas emissions of the 3 scopes has been change to report only the greenhouse gas emissions significant source.

Head Office and Renewable Energy Business (tCO₂e)



Engineering and Turnkey Business (tCO₂e)



The Company aims to reduce the greenhouse gas emission of the organization from the head office and renewable energy business by 5% compare with base year 2022, the operation in 2022 resulted that the amount of greenhouse gas emissions from the head office and renewable energy business **were increased 4.58%** due to the business expansion as One Stop Service for clean energy and to support the business expansion for the change of energy in the future to drive to the decrease of the greenhouse gas emission of the business sector and social sector for becoming low carbon society. The increased number of employees who join the Company and drive for business expansion increase for 27.11% which effect to the activity of the organization increase the greenhouse gas emissions such as fuel consumption, office resources consumption. The Company plan to develop the target for greenhouse gas emissions to be comply with the directions and business operation including target for Carbon Neutral and Net Zero Emission to be comply with the Country direction and target in the future. In 2022, the Company increase the scope of disclosure for the greenhouse gas emissions cover more business operation, therefore the Company did the evaluation and disclose the result of the greenhouse gas emission of the engineering and turnkey business for the first year and to be use as the base year for next year comparison.



Energy Management

Target in 2022	Performance in 2022
Percentage of energy consumption from outside per number of employees decrease for 5.00 (kilowatt-hour/ person)	Percentage of energy consumption from outside per number of employee decreased 20.59 (kilowatt-hour/ person)

Remark : Target and performance in 2002 cover only head office and renewable energy business

Energy is one of the key factors effect to the economy and society development presently, the need for energy consumption is increasing continuously. The Company is committed to conserve energy to achieve a serious and sustainable result and to have an appropriate planning and strategy policies for operations by having serious and continuous operations throughout the organization. Also, appointing responsible persons and assigning responsibilities to monitor the performance and measurement by using guidelines and indicators according to international standards. Lastly, developing technology and innovations to increase energy management capabilities to support sustainable growth in the future.

Energy Management Method

The Company having energy management at the maximum benefit and countinously develope for positive impact to the community, society and environment, the Company collected data covers 3 group of business such as 1) head office and renewable energy business 2) engineering and turnkey business and 3) high voltage equipment business consist of 17 companies as follows :

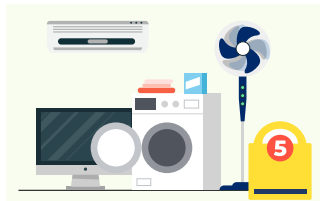
No.	Company	Code
Head Office		
1	Gunkul Engineering Public Company Limited	GUNKUL
Renewable Energy Business		
2	Wind Energy Development Company Limited	WED
3	Greenovation Power Company Limited	GNP
4	Korat Wind Energy Company Limited	KWE
5	NK Power Sola Company Limited	NKP
6	Solar Energy Society Company Limited	SES
7	Gunkul Solar Roof 1 Company Limited	GSR-1
8	Rang Ngern Solution Company Limited	RNS
9	ECO Thai Energy Company Limited	ECO
10	BMP Solar Company Limited	BMPS
11	Gunkul Solar Power 2 Company Limited	GSP
Engineering and Turnkey Business ⁽¹⁾		
12	Gunkul Power Developmetn Company Limited	GPD
13	Future Electrical Control Company Limited	FEC
14	GPD & TEECL Joint Venture Company Limited	JV_GPD&TEECL
15	Future Power Contruction Company Limited	FPC
High Voltage Equipment Business ⁽¹⁾		
16	Gunkul Power Developmetn Company Limited	GKA
17	Future Electrical Control Company Limited	GKP

⁽¹⁾ Remark : Engineering and Turnkey Business and High Voltage Equipment Business report water usage in 2022 for the first year.

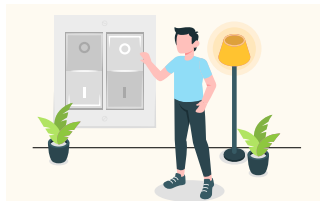
The Company operate through various activities to create awareness and operating guidelines to all employee for the maximum use of energy as follows :

1. Carry out activities or projects to encourage organizations to use energy for maximum benefit and reduce energy consumptions within the organization, such as campaigning to turn off air conditioners and electrical appliances when they are not in use.
2. Install solar power generation systems in business establishments, factories, and renewable energy power plant branches by using alternative energy to replace the main energy including installing solar electric lamps to illuminate the night, which is energy conserving and to reduce carbon dioxide and greenhouse gas emissions of the Company.

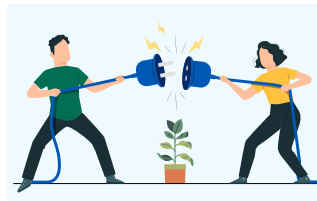
Energy reduction activities



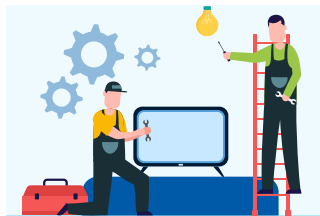
Use energy – efficient appliances



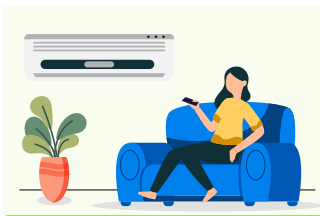
Switch off electrical appliances



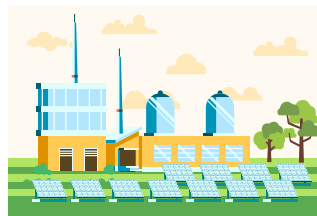
Unplug



Check electrical appliances regularly



Set air-conditioner timer



Install solar cell than using energy from outside the site instead

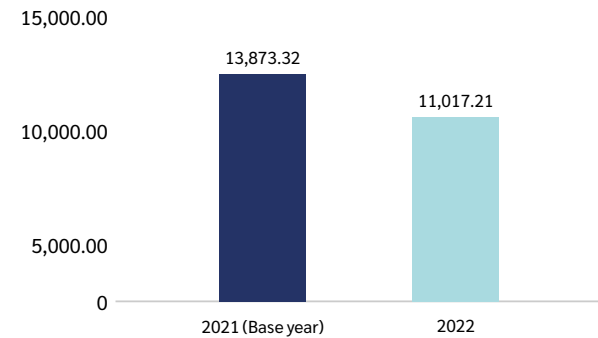
Energy Saving Performance

Energy Saving Performance in 2022

Electricity consumption
4,225,136.47 kWh

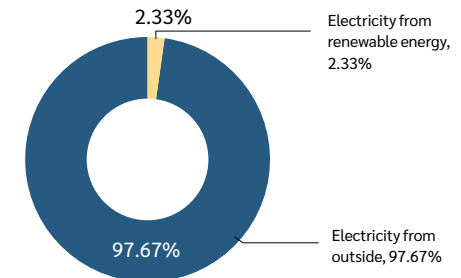
- Head Office and Renewable Energy Business **2,765,319.27 kWh**
- Engineering and Turnkey Business **111,173.75 kWh**
- High Voltage Equipment Business **1,348,643.45 kWh**

Electricity consumption from outside per number of employee of Head Office and Renewable Energy Business ⁽¹⁾ (kWh/ person)



Electricity consumption from outside
4,126,854.02 kWh

Electricity consumption from renewable energy
98,282.45 kWh



⁽¹⁾ Remark : Target and performance in 2022 cover only head office and renewable energy business

In 2022, the Company targeted to reduce the use of electricity from outside of the head office and renewable energy business group by 5%, the resulted of the use of electricity of the head office and renewable energy business group total of 2,765,319.27 kWh or 11,017.21 kWh per employee **which decreased for the base year for 20.59%.**

In 2022, the Company has expand the area of business to collecte data of the use of energy of the organization to cover engineering and turnkey business and high voltage equipment business in order to collected data covers all group of business of the Company. The Company will use data in 2022 as a base year, resulted that the use of electricirty of the head office and the 3 group of business total of 4,225,236.47 kWh or 16,939.35 kWh per employee, the result of the operation for each group of business as follows :

Detail	Head office and Renewable Energy Business		Engineering amd Turnkey ⁽¹⁾	High Voltage Equipment Business ⁽¹⁾	Total
	2021	2022	2022	2022	2022
Electricity consumption from outside	2,788,536.76	2,765,319.27	111,173.75	1,250,361.00	4,126,854.02
Electricity consumption from renewable energy	N/A	N/A	N/A	98,282.45	98,282.45
Total energy consumption	2,788,536.76	2,765,319.27	111,173.75	1,348,643.45	4,225,136.47
Renewable energy consumption ratio	N/A	N/A	N/A	7.29%	2.33%
Electricity consumption from outside per number of employee (kilowatt-hour/ employee)	13,873.32	11,017.21	646.36	5,275.78	16,939.35

⁽¹⁾ Remark : Engineering and Turnkey Business and High Voltage Equipment Business report water usage in 2022 for the first year.

The high voltage equipment business had installing solar panels on the roof of the factory. In 2022, the use of electricity from solar energy were total of 98,282.45 kWh, the Company reduce the cost of electricity of 434,575 Baht which reduce the cost from the use of electricity from outside equal to 7.29%. However, due to the COVID-19 pandemic in 2021 effect to the reduce of electricity due to the decrease of the production line and in 2022 as the COVID-19 pandemic situation has been unfolding the industry business has increase their production activity to meet up the demand of all sectors which resulted the increase of electricity. The Company aim to increase the electricity production capacity at maximum capacity for reduce the greenhouse gas emissions to low carbon society. Moreover, the Company target to reduce the use of electricity in engineering and turnkey business, high voltage equipment business to be align with future direction and operation of the Company.



Water Management

Target in 2022	Performance in 2022
Percentage of water usage per employee decrease for 5.00 (m ³ /employee)	Percentage of water usage per employee decreased 34.12 (m ³ /employee)

Remark : Target and performance in 2002 cover only head office and renewable energy business

Water is a natural resource that essential to life, economic development and is a fundamental resource in the development of the country even though water resources is not a fundamental resource for operating the business of the Company but the Company still consider the problems and effect from water shortage which is the key problem in the society. The Company aim for the efficient water management along with the sustainable conservation and restoration.

Water Management Method

The Company manage water at the maximum benefit cover since water source, water usage in each steps and discharge water to the outside which the Company use water for sanitary system and utility in the head office therefore, the Company collected data cover 3 group of business such as 1) head office and renewable energy business 2) engineering and turnkey business and 3) high voltage equipment business.

No.	Company	Code
Head Office		
1	Gunkul Engineering Public Company Limited	GUNKUL
Renewable Energy Business		
2	Wind Energy Development Company Limited	WED
3	Greenovation Power Company Limited	GNP
4	Korat Wind Energy Company Limited	KWE
5	NK Power Sola Company Limited	NKP
6	Solar Energy Society Company Limited	SES
7	Gunkul Solar Roof 1 Company Limited	GSR-1
8	Rang Ngern Solution Company Limited	RNS
9	ECO Thai Energy Company Limited	ECO
10	BMP Solar Company Limited	BMPS
11	Gunkul Solar Power 2 Company Limited	GSP
Engineering and Turnkey Business ⁽¹⁾		
12	Gunkul Power Developmetn Company Limited	GPD
13	Future Electrical Control Company Limited	FEC
14	GPD & TEECL Joint Venture Company Limited	JV_GPD&TEECL
15	Future Power Contruction Company Limited	FPC
High Voltage Equipment Business ⁽¹⁾		
16	Gunkul Power Developmetn Company Limited	GKA
17	Future Electrical Control Company Limited	GKP

⁽¹⁾ Remark : Engineering and Turnkey Business and High Voltage Equipment Business report water usage in 2022 for the first year.

Water Reduction Activities

The Company operate water management through following activities

1. Creating employee awareness of water saving through useful resources activities/ campaign.
2. Using water saving toilet pan, automatic tap with water discharge timer for an appropriate water flow.
3. To regularly inspect, maintenance and repair water using equipment for prevent leak and reduce the loss of water.
4. To use water from the recycle for plantation and car park cleaning.

Moreover, the Company also inspect the quality of the water source before discharge by outsource team in order to be certain that the quality of the water after treatment will not effect to the environment and the surround society.



Water Saving Performance

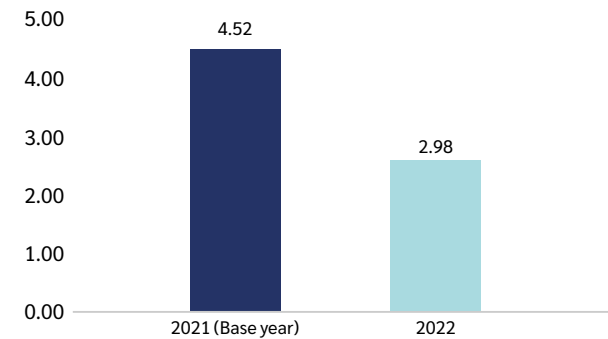
Water Saving Performance in 2022

Water Consumption

61,056.87 m³

- Head Office and Renewable Energy Business **45,760 m³**
- Engineering and Turnkey Business **6,655.87 m³**
- High Voltage Equipment Business **8,503.00 m³**

Water consumption per employee at Head Office and Renewable Energy Business ⁽¹⁾ (m³ per employee)

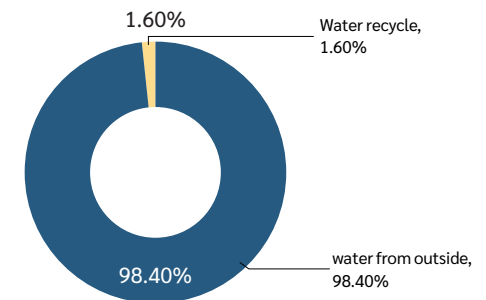


Water consumption from outside

60,918.87 m³

Recycle water ⁽²⁾

138 m³



⁽¹⁾ Remark : Target and performance in 2002 cover only Head Office and Renewable Energy Business

⁽²⁾ Remark : Recycling water operate only with the High Voltage Equipment Business

In 2022, the Company targeted to reduce water consumption per employee in head office and renewable energy business for 5% decreased, the result of water consumption in head office and renewable energy business total of 747 m³, equal to 2.98 m³ per employee which decreased from base year 2021 at 34.12% with 138 m³ of recycling water or 1.60% of the water consumption for 3 group of business and the Company will drive to use water resources to the maximum benefit continuously.

Waste and Pollution Management

Long Term Target	Performance in 2022
The amount of waste from landfill production process 0	The amount of waste from landfill production process 1.33

The Company attaches importance to operating in accordance with the Waste Management Policy, which covers waste from the production process and office waste. The Company also supports resource reduction to use resources efficiently to reduce the amount of waste and make the best use of resources. The Company aims to achieve zero waste to landfill, reduce the impact on communities, society and the environment, and strive to develop technology and innovation to manage waste and pollution to support future business growth, as well as promote business operations in the circular economy toward sustainable waste management.

Waste and pollution management guidelines

The Company establishes waste management procedures in accordance with regulations, laws, and international standards to increase management efficiency and minimize environmental impact in all areas of business operations under the principle of PLAN DO CHECK ACTION, which is a systematic waste management principle with monitoring, evaluation, and review for continuous improvement, as well as a campaign to promote the 8Rs principle to be applied to reduce the amount of waste to be disposed of and promote efficient use of resources according to the principles of circular economy.



The Company has adopted the waste and pollution management policy to support the effective use of resources to reduce pollution and impact on the community, society and environment by strictly adhering to the plans and regulations covering in all areas. In addition, the Company is committed to managing waste and pollution in accordance with international standards by collecting data for analysis and systematic operation covering 3 business groups : 1) Headquarter and Renewable Energy Business Group, 2) Engineering and Turnkey Business Group, and 3) High Voltage Equipment Business Group, covering a total of 17 companies as follows :

No.	Company	Code
Head Office		
1	Gunkul Engineering Public Company Limited	GUNKUL
Renewable Energy Business		
2	Wind Energy Development Company Limited	WED
3	Greenovation Power Company Limited	GNP
4	Korat Wind Energy Company Limited	KWE
5	NK Power Sola Company Limited	NKP
6	Solar Energy Society Company Limited	SES
7	Gunkul Solar Roof 1 Company Limited	GSR-1
8	Rang Ngern Solution Company Limited	RNS
9	ECO Thai Energy Company Limited	ECO
10	BMP Solar Company Limited	BMPS
11	Gunkul Solar Power 2 Company Limited	GSP
Engineering and Turnkey Business		
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13	Future Electrical Control Company Limited	FEC
14	GPD & TEECL Joint Venture Company Limited	JV_GPD&TEECL
15	Future Power Contruaction Company Limited	FPC
High Voltage Equipment Business		
16	Gunkul Power Developmetn Company Limited	GKA
17	Future Electrical Control Company Limited	GKP

The process of reducing waste and pollution

The company has analyzed the database to find the most efficient waste management method. Starting with raising awareness among employees to make the best use of resources, minimize waste generation, and properly and continuously manage waste by adhering to the easy-to-understand principle of “Reduce, Reuse, and Recycle” under the Zero Waste Project, as well as adhering to the 8Rs principles in the organization to minimize the impact on the environment by establishing the Waste Management Committee to drive and supervise management to achieve the long-term goal of zero waste to landfill.

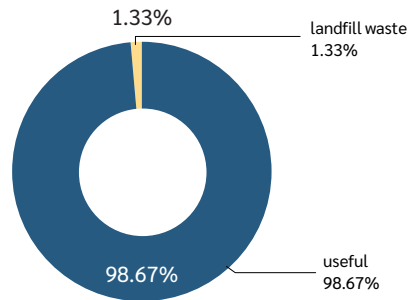


In the year 2022, apart from the process of reducing the amount of waste and pollution or industrial waste, the company has established the zero waste project to encourage employees in the organization to participate in waste management or things that are unused in daily life to return useful such as waste cloth bags are used instead of plastic bags for medicines to hospitals, Gunkul pankan activity is to “share” things in good condition to place as the scholarships for underprivileged children in the Yuvabadhana Foundation, UPCYCLE activity, plastic cups and CDs to be used as materials of sustainability, “Phra Sati” production, amulets made of recycled plastic, activity to separate plastic water bottles for sustainable recycling, and old calendar donation activity to pass to the blind person as the Braille media teaching, which is an activity that the company has continuously carried out.

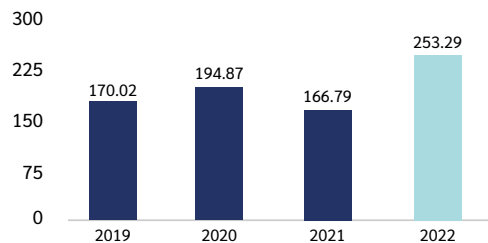
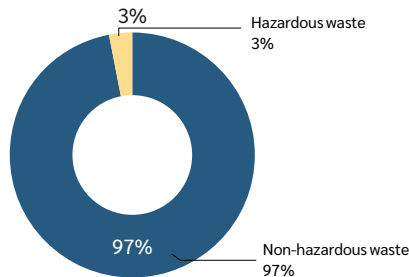
Operating Results to Reduce the Amount of Waste and Pollution

Operating Results to Reduce the Amount of Waste and Pollution in 2022

Amount of waste from the production process (industrial waste) **253.29 tons**



- Hazardous waste **7.88 tons**
- Non-hazardous waste **245.41 tons**
- 3Rs principle management **3Rs**
249.93 tons
- Landfill waste management **3.36 tons**



Note : Scope of information : Renewable Energy Business Group and High Voltage Equipment Business Group

Operating Results to Reduce the Amount of Waste and Pollution in 2022

The amount of general solid waste (office waste) **143.21 tons**

The amount of general waste per employee is **0.339 tons per person.**

- | | |
|---|--|
| • Headquarter and Renewable Energy Business Group | • Engineering and Turnkey Business Group |
| 0.061 tons per person | 0.744 tons per person |

Note : Scope of information : Headquarters and Renewable Energy Business Group and Engineering and Turnkey Business Group

The Company's long-term goal is to achieve zero waste from the production process to landfill. It was found that in 2022, the headquarter, renewable energy business group and high voltage equipment business group have a quantity of waste from the production process (industrial waste) of 253.29 tons, with disposal and treatment management according to the 3Rs principle of 249.93 tons, or 98.67%. There is also 1.33% of waste from the landfill process. In addition, the company has collected data on the amount of general waste generated from office activities to use as a database to set the target and guidelines for responsibility management in the next year to cover all areas of activities generated from business operations. In 2022, the amount of general waste was 143.21 tons, which is the amount of general waste per employee of 0.339 tons per year. The company has sorted the waste into 4 categories : organic waste, general waste, recyclable waste, and hazardous waste. The sorted waste is reused or disposed of according to the regulations.

Part 4 About This Report

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Scope of This Report

The Company has prepared the 2022 Sustainability Report to show operating results and key issues towards all stakeholders by taking into account economic, social, and environmental dimensions, focusing on the implementation of strategic plans in order to achieve the organization's vision and mission under sustainable development policy. This report has a reporting framework that is in consistent with the indicators of Global Reporting Initiative (GRI) and has been reviewed and approved by the Board of Directors and executives to ensure completeness covering economic, social, and environmental issues, as well as, building public and stakeholders confidence. In addition, the scope of report covers information of the Company and subsidiaries as follows :

Business Group/ Company			Economic	Social		Environment			
				Human Resource	Safety	Greenhouse gas	Energy	Water	Waste
1	Gunkul Engineering PCL	GUNKUL	•	•	•	•	•	•	•
Renewable Energy Business Group									
2	Wind Energy Development Co., Ltd.	WED	•	•	•	•	•	•	•
3	Greenovation Power Co., Ltd.	GNP	•	•	•	•	•	•	•
4	Korat Wind Energy Co., Ltd.	KWE	•	•	•	•	•	•	•
5	NKP Power Solar Co., Ltd.	NKP	•	•	-	•	•	•	•
6	Rang Ngern Solution Co., Ltd.	RNS	•	•	-	•	•	•	•
7	Eco Thai Energy Co., Ltd.	ECO	•	•	-	•	•	•	•
8	BMP Solar Co., Ltd.	BMPS	•	•	-	•	•	•	•
9	Gunkul Solar Power 2 Co., Ltd.	GSP-2	•	•	-	•	•	•	•
10	Gunkul Solar Community Co., Ltd.	GSC	•	•	-	-	-	-	-
11	Solar Energy Society Co., Ltd.	SES	•	•	-	•	•	•	•
12	Gunkul Solar Roof1 Co., Ltd.	GSR-1	•	•	-	•	•	•	•
13	Gunkul Utility and Energy Co., Ltd.	GUE	•	•	•	-	-	-	-
14	Bright Green Power Co., Ltd.	BGP	•	•	-	-	-	-	-
15	Gunkul Chubu Powergen Co., Ltd.	GCPG	•	•	-	-	-	-	-

Business Group/ Company			Economic	Social		Environment			
				Human Resource	Safety	Greenhouse gas	Energy	Water	Waste
Engineering and Turnkey									
16	Gunkul Power Development Co., Ltd.	GPD	•	•	•	•	•	•	•
17	Future Electrical Control Co., Ltd.	FEC	•	•	•	•	•	•	•
18	Joint Venture GPD & TEECL Co., Ltd.	JV_GPD&TEECL	•	•	-	•	•	•	•
19	Future Power Construction Co., Ltd.	FPC	•	•	-	•	•	•	•
High-Voltage Equipment Business Group									
20	G.K. Assembly Co., Ltd.	GKA	•	•	•	-	•	•	•
21	G.K.Power Products Co., Ltd.	GKP	•	•	•	-	•	•	•
22	K.N.P. Supply Co., Ltd.	KNP	•	•	-	-	-	-	-
Ecosystem Business Platform & Innovation Business Group									
23	Future Energy Corporation Co., Ltd.	FE	•	•	-	-	-	-	-
24	Gunkul Godungfaifaa Platform Co., Ltd.	GDFF	•	•	-	-	-	-	-
Hemp and Cannabis Business Group									
25	G.K. Hemp Group Co., Ltd.	GKHG	•	•	-	-	-	-	-
26	G.K. Smart Farming Co., Ltd.	GKSF	•	•	-	-	-	-	-
27	G.K. Bio Extraction Co., Ltd.	GKBE	•	•	-	-	-	-	-
28	THCG Group Co., Ltd.	THCG	•	•	-	-	-	-	-
29	Thai Stick Herb Co., Ltd.	TSH	•	•	-	-	-	-	-

This report and its predecessors can be downloaded from the company's website

For more information please contact

Good Corporate Governance and Sustainable Development Committee

1177, 8th Floor, Pearl Bangkok Building, Phaholyothin Road, Phayathai, Phayathai, Bangkok 10400

Telephone : (+66) 2 242 5800, (+66) 2 242 5834

Email : sd@gunkul.com and Website : www.gunkul.com

Sustainability Performance

Social Performance

Information on Employment

Performance Data	Unit	2019	2020	2021	2022
Total employees					
Total employees	Person	844	964	959	1,219
Number of employees by gender					
Male	Person	538	603	610	739
	%	63.74	62.55	63.61	60.62
Female	Person	306	361	349	480
	%	36.26	37.45	36.39	39.38
Number of employees by age					
Less than 30 years old	Person	-	292	309	410
	%	-	30.29	32.22	33.63
30-50 years old	Person	-	608	574	701
	%	-	63.07	59.85	57.51
Over 50 years old	Person	-	64	76	108
	%	-	6.64	7.92	8.86
Number of employees by ethnicity					
Thai	Person	-	916	914	1,161
	%	-	95.02	95.31	95.24
Foreigners	Person	-	48	45	58
	%	-	4.98	4.69	4.76
Number of employees by employment type					
Full time	Person	718	791	835	1,033
	%	85.07	82.05	87.07	84.74
Contracted	Person	126	173	124	186
	%	14.93	17.95	12.93	15.26

Performance Data	Unit	2019	2020	2021	2022
Number of employees by other hiring					
Elderly	Person	5	6	8	11
	%	0.59	0.62	0.83	0.90
Disabled	Person	2	7	8	11
	%	0.24	0.73	0.83	0.90
Number of employees by level					
Management level	Person	34	38	41	59
	%	4.03	3.94	4.28	4.84
Manager level	Person	60	65	71	87
	%	7.11	6.74	7.40	7.14
Supervisor level	Person	88	114	117	143
	%	10.43	11.83	12.20	11.73
Staff level	Person	421	476	509	646
	%	49.88	49.38	53.08	52.99
Operator level	Person	241	271	221	284
	%	28.55	28.11	23.04	23.30
Number of employees by workplace					
Head office and main building	Person	-	649	666	796
	%	-	67.32	69.45	65.30
Outside head office and main building	Person	-	308	293	423
	%	-	31.95	30.55	34.70
Number of employees by education					
High school/ less	Person	-	422	371	505
	%	-	43.78	38.69	41.43
Bachelor degree	Person	-	527	576	685
	%	-	54.67	60.06	56.19
Master degree	Person	-	12	15	21
	%	-	1.24	1.56	1.72
Doctorate degree	Person	-	3	6	8
	%	-	0.31	0.63	0.66

Information on Employees' care

Performance Data	Unit	2019	2020	2021	2022
Employees who have been promoted					
Total number of employees who have been promoted	Person	16	16	18	34
	%	1.90	1.66	1.88	3.05
Employees who have been promoted by gender					
Male	Person	-	12	11	24
		-	75.00	61.11	70.59
Female	Person	-	4	8	10
	%	-	25.00	44.44	29.41
Employees who have been promoted by level					
Management level	Person	6	2	1	8
		37.50	12.50	5.56	23.53
Assistant Manager and Manager	Person	6	3	6	9
	%	37.50	18.75	33.33	26.47
Supervisor level	Person	4	11	11	17
	%	25.00	68.75	61.11	50.00
Level of satisfaction and engagement to the organization					
Level of satisfaction and engagement to the organization	%	67	87	86	87
Employees complaints on labor practices					
Number of complaints	Case	0	0	0	0

Information on Resignation

Performance Data	Unit	2019	2020	2021	2022
Number of employees to retire					
In 5 years (50-55 years old)	Person	-	47	49	60
		-	4.88	5.11	4.92
In 10 years (45-50 years old)	Person	-	111	123	133
	%	-	11.51	12.83	10.91
Number of employees who resigned					
Total number of resigned employees	Person	-	100	190	217
Total turnover rate	%	2.23	1.39	1.63	1.54
Number of employees who resigned by gender					
Male	Person	-	83	105	136
		-	83.00	55.26	62.67
Female	Person	-	17	85	81
	%	-	17.00	44.74	37.33
Number of new employees					
Total number of new employees	Person	-	220	185	433
New employment rate	%	2.42	1.90	1.84	3.53
Number of new employees by gender					
Male	Person	-	148	112	244
		-	67.27	60.54	56.35
Female	Person	-	72	73	189
	%	-	32.73	39.46	43.65

Information on Training

Performance Data	Unit	2019	2020	2021	2022
Total number of employees' training and potential development					
Total training budget	Million Baht	3.85	3.15	2.00	1.20
Total training courses	Course	168	135	111	95
Total training hours	Hour	13,985	12,754	4,805	6,843
Total number of employees who have been trained	Person	2,231	1,022	1,371	1,609
Average training hours per person	Hour/ Person/ Year	16.57	13.23	5.01	5.61
Average training hours per person by level					
Management level	Hour	1,224	874	900	841.00
	Hour/ Person/ Year	36.00	23.00	21.94	14.25
Assistant Manager and Manager level	Hour	2,160	390	653	893.00
	Hour/ Person/ Year	36.00	6.00	9.20	10.26
Supervisor level	Hour	2,288	684	866	1,102.00
	Hour/ Person/ Year	26.00	6.00	7.40	7.71
Staff level	Hour	5,894	3,332	3,008	964.00
	Hour/ Person/ Year	14.00	7.00	5.91	1.49
Operator level	Hour	2,169	1,355	267	64.00
	Hour/ Person/ Year	9.00	5.00	1.21	0.23

Information on Occupational Health and Safety

Performance Data	Unit	2019	2020	2021	2022
Number of accidents resulting in absence from work for more than 1 day	Case	-	-	2	5
Number of accidents resulting in absence from work for more than 3 days	Case	1	0	0	4
Injury rate resulting in absence from work for more than 1 day	Case per 1 million working hours	-	-	1.53	1.79
resulting in absence from work for more than 3 days	Case per 1 million working hours	-	-	-	1.44
Number of consecutive accident-free days	Day	1,846	2,134	2,416	2,707
Number of death from work					
Number of employees who died from work	Person	0	0	0	0
Number of contractors died from work	Person	0	0	0	0
Number of death from occupational diseases					
Number of employees who died from occupational diseases	Person	0	0	0	0
Number of contractors who died from occupational diseases	Person	0	0	0	0

Envieronmental Performance

Information on Energy Usage within the Organization

Performance Data	Unit	2019	2020	2021	2022
Total amount of electricity usage within the organization	kWh	-	-	3,683,180.17 ⁽¹⁾	4,225,136.47 ⁽²⁾
Amount of electricity usage from outside	kWh	-	-	3,580,399.76 ⁽¹⁾	4,126,854.02 ⁽²⁾
Amount of electricity usage from renewable energy (GKA Solar Rooftop)	kWh	117,586.00	123,246.58	102,780.41	98,282.45
Proportion of renewable energy usage	%	-	-	2.79	2.33
Amount of electricity usage from outside to number of employees	kWh to 1 employee	-	-	13,873.32 ⁽³⁾	11,017.21 ⁽³⁾

⁽¹⁾ Note : Operating results cover head office and Renewable Energy business group, and High-voltage Equipment business group.

⁽²⁾ Note : Operating results cover head office and Renewable Energy business group, High-voltage Equipment business group and Engineering and Turnkey business group.

⁽³⁾ Note : Operating results cover head office and Renewable Energy business group.

Information on Water Usage within the Organization

Performance Data	Unit	2019	2020	2021	2022
Total amount of water usage within the organization	m ³	7,754.03 ⁽¹⁾	6,229.00 ⁽¹⁾	37,310.58 ⁽²⁾	61,056.87 ⁽³⁾
Amount of water usage from outside	m ³	7,658.03 ⁽¹⁾	6,133.00 ⁽¹⁾	37,214.58 ⁽²⁾	60,918.87 ⁽³⁾
Amount of circulating water usage	m ³	96 ⁽¹⁾	96 ⁽¹⁾	96 ⁽¹⁾	138 ⁽¹⁾
Proportion of circulating water usage	%	1.24 ⁽¹⁾	1.54 ⁽¹⁾	1.60 ⁽¹⁾	1.60 ⁽¹⁾
Amount of tap water usage to number of employees	m ³ to 1 employee	-	-	4.52 ⁽⁴⁾	2.98 ⁽⁴⁾

⁽¹⁾ Note : Operating results cover High-voltage Equipment business group.

⁽²⁾ Note : Operating results cover head office and Renewable Energy business group, and High-voltage Equipment business group.

⁽³⁾ Note : Operating results cover head office and Renewable Energy business group, High-voltage Equipment business group and Engineering and Turnkey business group.

⁽⁴⁾ Note : Operating results cover head office and Renewable Energy business group.

Information on Waste Management

Performance Data	Unit	2019	2020	2021	2022
Waste from production process (Industrial waste)⁽¹⁾					
Total waste from production process	Ton	170.02	194.87	166.79	253.29
Amount of non-hazardous waste	Ton	163.69	192.03	162.92	245.41
	%	96.28	98.54	97.68	96.89
Amount of hazardous waste	Ton	6.33	2.84	3.87	7.88
	%	3.72	1.46	2.32	3.11
Amount of waste managed according to 3Rs principles	Ton	-	192.64	163.69	249.93
	%	-	98.86	98.14	98.67
Amount of waste sent to landfill	Ton	-	2.23	3.10	3.36
	%	-	1.14	1.86	1.33
General sold waste (Waste in office)⁽²⁾					
Total amount of general sold waste	Ton	-	-	-	143.21
Amount of genral solid waste to number of employees	Ton per person	-	-	-	0.339

⁽¹⁾ Note : Operating results cover Renewable Energy business group and High-voltage Equipment business group.

⁽²⁾ Note : Operating results cover head office and Renewable Energy business group, Engineering and Turnkey business group.

Information on Greenhouse Gas Emissions of the Organization

Performance Data	Unit	2019	2020	2021	2022
Total greenhouse gas emissions	tCO ₂ e	-	-	2,386.78 ⁽¹⁾	5,445.00 ⁽²⁾
Total greenhouse gas emissions (Scope 1)	tCO ₂ e	-	-	660.55 ⁽¹⁾	1,092.00 ⁽²⁾
Greenhouse gas emissions from energy usage (Scope 2)	tCO ₂ e	-	-	1,393.99 ⁽¹⁾	1,439.00 ⁽²⁾
Greenhouse gas emissions from other sources (Scope 3)	tCO ₂ e	-	-	332.24 ⁽¹⁾	2,914.00 ⁽²⁾
Proportion of greenhouse gas emissions to emission factor	tCO ₂ e/ MWh	-	-	0.0045 ⁽¹⁾	0.0054 ⁽¹⁾
	tCO ₂ e/ MB	-	-	-	3.20 ⁽³⁾

⁽¹⁾ Note : Operating results cover head office and Renewable Energy business group.

⁽²⁾ Note : Operating results cover head office and Renewable Energy business group, and Engineering and Turnkey business group.

⁽³⁾ Note : Operating results cover Engineering and Turnkey business group.



Disclosure by Indicators

GRI Content Index

Statement of use Gunkul Engineering Public Company Limited has reported the information cited in this GRI content index for the period 1 January 2022 to 31 December 2022 with reference to the GRI Standards.

GRI 1 used GRI 1 : Foundation 2021

GRI Standard	Disclosure	Location	Externally Assured
GRI 2 : General Disclosures 2021	2-1 Organizational details	page 5, 56-1 One Report page 26	No
	2-2 Entities included in the organization's sustainability reporting	page 105-106	No
	2-3 Reporting period, frequency and contact point	page 106, 113	No
	2-4 Restatements of information	page 105-106	No
	2-5 External assurance	page 120	No
	2-6 Activities, value chain and other business relationships	page 16	No
	2-7 Employees	page 47, 107-108	No
	2-8 Workers who are not employees	Information unavailable	No
	2-9 Governance structure and composition	page 14, 56-1 One Report page 132, 136-139, 142-144	No
	2-10 Nomination and selection of the highest governance body	56-1 One Report page 155-156	No
	2-11 Chair of the highest governance body	56-1 One Report page 136-137	No
	2-12 Role of the highest governance body in overseeing the management of impacts	56-1 One Report page 137-145	No
	2-13 Delegation of responsibility for managing impacts	56-1 One Report page 142-143	No
	2-14 Role of the highest governance body in sustainability reporting	page 14, 23	No
	2-15 Conflicts of interest	56-1 One Report page 139-141, 166-167	No

GRI Standard	Disclosure	Location	Externally Assured
	2-16 Communication of critical concerns	56-1 One Report page 139-141, 166-167	No
	2-17 Collective knowledge of the highest governance body	56-1 One Report page 155-157	No
	2-18 Evaluation of the performance of the highest governance body	56-1 One Report page 157-159	No
	2-19 Remuneration policies	56-1 One Report page 161-163	No
	2-20 Process to determine remuneration	56-1 One Report page 161-163	No
	2-21 Annual total compensation ratio	Confidentiality constraints	No
	2-22 Statement on sustainable development strategy	page 2-3	No
	2-23 Policy commitments	page 8-13	No
	2-24 Embedding policy commitments	page 14	No
	2-25 Processes to remediate negative impacts	page 17-22	No
	2-26 Mechanisms for seeking advice and raising concerns	page 17-22	No
	2-27 Compliance with laws and regulations	page 16, 31, 44	No
	2-28 Membership associations	page 31	No
	2-29 Approach to stakeholder engagement	page 17-22	No
	2-30 Collective bargaining agreements	Not applicable	-

GRI Standard	Disclosure	Location	Externally Assured
GRI 3 : Material Topics 2021	3-1 Process to determine material topics	page 23-24	No
	3-2 List of material topics	page 24	No
	3-3 Management of material topics	page 25-27 and see details in each chapter	No
GRI 201 : Economic Performance 2016	201-1 Direct economic value generated and distributed	page 16, 56-1 One Report page 9	No
	201-2 Financial implications and other risks and opportunities due to climate change	page 35, 56-1 One Report page 83	No
	201-3 Defined benefit plan obligations and other retirement plans	56-1 One Report page 149	No
	201-4 Financial assistance received from government	56-1 One Report page 64	No
GRI 202 : Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	Not applicable	-
	202-2 Proportion of senior management hired from the local community	Not applicable	-
GRI 203 : Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Not applicable	-
	203-2 Significant indirect economic impacts	Not applicable	-
GRI 204 : Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Not applicable	-
GRI 205 : Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	page 31-34	No
	205-2 Communication and training about anti-corruption policies and procedures	page 34	No
	205-3 Confirmed incidents of corruption and actions taken	page 34	No
GRI 206 : Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Not applicable	-

GRI Standard	Disclosure	Location	Externally Assured
GRI 207 : Tax 2019	207-1 Approach to tax	page 42	No
	207-2 Tax governance, control, and risk management	page 35-36, 42	No
	207-3 Stakeholder engagement and management of concerns related to tax	page 42	No
	207-4 Country-by-country reporting	Not applicable	-
GRI 301 : Materials 2016	301-1 Materials used by weight or volume	Not applicable	-
	301-2 Recycled input materials used	Not applicable	-
	301-3 Reclaimed products and their packaging materials	Not applicable	-
GRI 302 : Energy 2016	302-1 Energy consumption within the organization	page 97-98, 111	No
	302-2 Energy consumption outside of the organization	page 97-98, 111	No
	302-3 Energy intensity	page 97-98, 111	No
	302-4 Reduction of energy consumption	page 96-98	No
	302-5 Reductions in energy requirements of products and services	Not applicable	-
GRI 303 : Water and Effluents 2018	303-1 Interactions with water as a shared resource	page 99-100, 111	No
	303-2 Management of water discharge-related impacts	page 89	No
	303-3 Water withdrawal	page 100, 111	No
	303-4 Water discharge	page 100	No
	303-5 Water consumption	page 100, 111	No

GRI Standard	Disclosure	Location	Externally Assured
GRI 304 : Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Not applicable	-
	304-2 Significant impacts of activities, products and services on biodiversity	Not applicable	-
	304-3 Habitats protected or restored	Not applicable	-
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Not applicable	-
GRI 305 : Emissions 2016	305-1 Direct (Scope 1) GHG emissions	page 91-95, 112	Yes
	305-2 Energy indirect (Scope 2) GHG emissions	page 91-95, 112	Yes
	305-3 Other indirect (Scope 3) GHG emissions	page 91-95, 112	Yes
	305-4 GHG emissions intensity	page 94, 112	Yes
	305-5 Reduction of GHG emissions	page 91-95	No
	305-6 Emissions of ozone-depleting substances (ODS)	Not applicable	-
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Not applicable	-
GRI 306 : Waste 2020	306-1 Waste generation and significant waste-related impacts	page 101-103	No
	306-2 Management of significant waste-related impacts	page 101-103	No
	306-3 Waste generated	page 103, 112	No
	306-4 Waste diverted from disposal	page 103, 112	No
	306-5 Waste directed to disposal	page 103, 112	No
GRI 308 : Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	page 37-41	No
	308-2 Negative environmental impacts in the supply chain and actions taken	page 37-41	No

GRI Standard	Disclosure	Location	Externally Assured
GRI 401 : Employment 2016	401-1 New employee hires and employee turnover	page 46-47, 109	No
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Page 52-53	No
	401-3 Parental leave	Information unavailable	-
GRI 402 : Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	Information unavailable	-
GRI 403 : Occupational Health and Safety 2018	403-1 Occupational health and safety management system	page 56-60	No
	403-2 Hazard identification, risk assessment, and incident investigation	page 57	No
	403-3 Occupational health services	page 56-60	No
	403-4 Worker participation, consultation, and communication on occupational health and safety	page 56-60	No
	403-5 Worker training on occupational health and safety	page 58	No
	403-6 Promotion of worker health	page 52	No
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	page 57-59	No
	403-8 Workers covered by an occupational health and safety management system	page 60, 105-106	No
	403-9 Work-related injuries	page 56, 60, 110	No
	403-10 Work-related ill health	page 56, 60, 110	No
GRI 404 : Training and Education 2016	404-1 Average hours of training per year per employee	page 48, 51, 110	No
	404-2 Programs for upgrading employee skills and transition assistance programs	page 48-52	No
	404-3 Percentage of employees receiving regular performance and career development reviews	page 51, 55-56, 109-110	No
GRI 405 : Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	page 47, 107, 56-1 One Report page 136, 148	No
	405-2 Ratio of basic salary and remuneration of women to men	One Report page 149	No

GRI Standard	Disclosure	Location	Externally Assured
GRI 406 : Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	page 44	No
GRI 407 : Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	page 18, 34	No
GRI 408 : Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	page 40, One Report page 82	No
GRI 409 : Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	page 40, One Report page 82	No
GRI 410 : Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	Information unavailable	No
GRI 411 : Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	page 44	No
GRI 413 : Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	page 21, 66-78, One Report page 104	No
	413-2 Operations with significant actual and potential negative impacts on local communities	page 66, 78, One Report page 104	No
GRI 414 : Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	page 37-41	No
	414-2 Negative social impacts in the supply chain and actions taken	page 37-41	No
GRI 415 : Public Policy 2016	415-1 Political contributions	Not applicable	-
GRI 416 : Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	page 61-65	No
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	page 61, One Report page 104	No
GRI 417 : Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	page 63	No
	417-2 Incidents of non-compliance concerning product and service information and labeling	page 61, One Report page 104	No
	417-3 Incidents of non-compliance concerning marketing communications	page 61, One Report page 104	No
GRI 418 : Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	page 44	No



Assurance Statement

The Company gives importance on operating a transparent, accurate, and accountable business under responsibility towards all stakeholders and in accordance with good corporate governance principles in order to manage efficient business growth. Especially nowadays that climate change has intensified, the Company realizes such importance and be prepared to deal with it to reduce the impact that may occur. Therefore, a report on greenhouse gas emissions has been prepared within the specified reporting scope to enhance work processes and operate efficient business covering 2 business groups, which are head office and Renewable Energy business group, and Engineering and Turnkey business group. On March 14, 2023 and March 15, 2023 respectively, the Company has been verified at a limited confidence level by an expert, Bureau Veritas Certification (Thailand) Co., Ltd. and received the Greenhouse Gas Verification Statement according to verification standards for quantification and reporting of greenhouse gas emissions and removals at the organization level (ISO 14064-1 : 2018) for a report on greenhouse gas emissions during January 1, 2022 to December 31, 2022.

Head office and Renewable Energy Business Group

 **Bureau Veritas Certification**

Greenhouse Gases Verification Statement
Awarded to

Gunkul Engineering Public Company Limited
1177, 8th Fl., Pearl Bangkok Building,
Phaholyothin Rd., Phaya Thai, Phaya Thai, Bangkok 10400, Thailand

For Organisation Boundaries Covering

Headquarter office: Gunkul Engineering Public Company Limited
Solar Power Plant: NK Power Solar Co., Ltd., Solar Energy Society Co., Ltd.,
Gunkul Solar Roof 1 Co., Ltd., Rang Ngon Solution Co., Ltd.,
Eco Thai Energy Co., Ltd., BMP Solar Co., Ltd.,
Gunkul Solar Power 2 Co., Ltd.
Wind Power Plant: Wind Energy Development Co., Ltd.
Greenovation Power Co., Ltd., Kosa Wind Energy Co., Ltd.

Bureau Veritas Certification has carried out the verification of the quantity of Greenhouse Gas emissions of the above organization as per ISO 14064-1:2019. The Greenhouse Gas emission quantification and reporting is found to be in accordance with the requirements of the standard detailed below

ISO 14064 - 1: 2018
SCOPE OF CERTIFICATION

DIRECT EMISSION: 763 tons CO₂ equivalent
ENERGY INDIRECT EMISSION: 1,383 tons CO₂ equivalent
INDIRECT EMISSION: 350 tons CO₂ equivalent
EMISSIONS DUE TO BIOMASS COMBUSTION: Nil

REPORTING YEAR: 1st JANUARY 2022 TO 31st DECEMBER 2022*
LEVEL OF ASSURANCE: LIMITED

To check this certificate validity please call: 062 675 4000

Further clarification regarding the scope of this verification certificate and the applicability of the ISO 14064-1:2018 requirements may be obtained by consulting the organization

Certification Number: THAILAND-GHG-2023-20 Date: 14 March 2023


Mr. Prawatong Tongyai Na Ayuthaya
Certification Manager

Certification - Managing Office Address: Bureau Veritas Certification (Thailand) 14th Floor, Bangkok Tower,
1779 New Sukhumvit Road, Bangkok, Thailand 10110, Thailand
* If 1 signature is included based on Thai version of Greenhouse Gas report

Engineering and Turnkey Business Group

 **Bureau Veritas Certification**

Greenhouse Gases Verification Statement
Awarded to

Gunkul Power Development Company Limited
1177, 12Ath Fl., Pearl Bangkok Building,
Phaholyothin Rd., Phaya Thai, Phaya Thai, Bangkok 10400, Thailand

For Organisation Boundaries Covering

Headquarter office:
Gunkul Power Development Company Limited
Future Electrical Control Company Limited
Future Power Construction Company Limited
GPD & TEECI Joint Venture Company Limited
Construction site

Project sites under operation of all 4 companies totaling 27 sites

Bureau Veritas Certification has carried out the verification of the quantity of Greenhouse Gas emissions of the above organization as per ISO 14064-1:2019. The Greenhouse Gas emission quantification and reporting is found to be in accordance with the requirements of the standard detailed below

ISO 14064 - 1: 2018
SCOPE OF CERTIFICATION

DIRECT EMISSION: 329 tons CO₂ equivalent
ENERGY INDIRECT EMISSION: 66 tons CO₂ equivalent
INDIRECT EMISSION: 2,564 tons CO₂ equivalent
EMISSIONS DUE TO BIOMASS COMBUSTION: Nil

REPORTING YEAR: 1st JANUARY 2022 TO 31st DECEMBER 2022*
LEVEL OF ASSURANCE: LIMITED

To check this certificate validity please call: 062 675 4000

Further clarification regarding the scope of this verification certificate and the applicability of the ISO 14064-1:2018 requirements may be obtained by consulting the organization

Certification Number: THAILAND-GHG-2023-21 Date: 15 March 2023


Mr. Prawatong Tongyai Na Ayuthaya
Certification Manager

Certification - Managing Office Address: Bureau Veritas Certification (Thailand) 14th Floor, Bangkok Tower,
1779 New Sukhumvit Road, Bangkok, Thailand 10110, Thailand
* If 1 signature is included based on Thai version of Greenhouse Gas report

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