

# TOWARDS TO NET



**GUNKUL**  
*not only the energy, we care*

Sustainability Report 2022



# Contents



## Part 3 Sustainability Objectives and Performance

28



### Overview

Message from the Chief Executive Officer	02
Business Overview	04
Gunkul Business	05
Sustainability Awards and Achievement	06

### Part 1 Sustainability Management 07

Sustainable Development Policy	08
Sustainable Development Goals and Strategies	10
Organizational Structure for Sustainability	14

### Part 2 Management of Impacts on Stakeholders in the Business Value Chain 15

The Business Value Chain	16
Analysis of Stakeholders within the Business Value Chain	17
Materiality Assessment	23

#### For Growing Business 29

Good Corporate Governance	30
Anti-Corruption	31
Risk and Crisis Management	35
Supply Chain Management	37
Tax Management	42

#### For a Livable Society 43

Human Rights Approach	44
Human Resource Management	46
Safety, Occupational Health, and Working Environment Management	56
Customer Relationship Management	61
Community and Social Responsibility	66
Innovation for Social Development	78

#### For the Sustainable Environment 86

Environmental Responsibility	87
Greenhouse Gas Emission Management	91
Energy Management	96
Water Management	99
Waste and Pollution Management	101

### Part 4 About This Report 104

Scope of This Report	105
Sustainability Performance	107
Disclosure by Indicators	113
Assurance Statement	120



## Message from the Chief Executive Officer

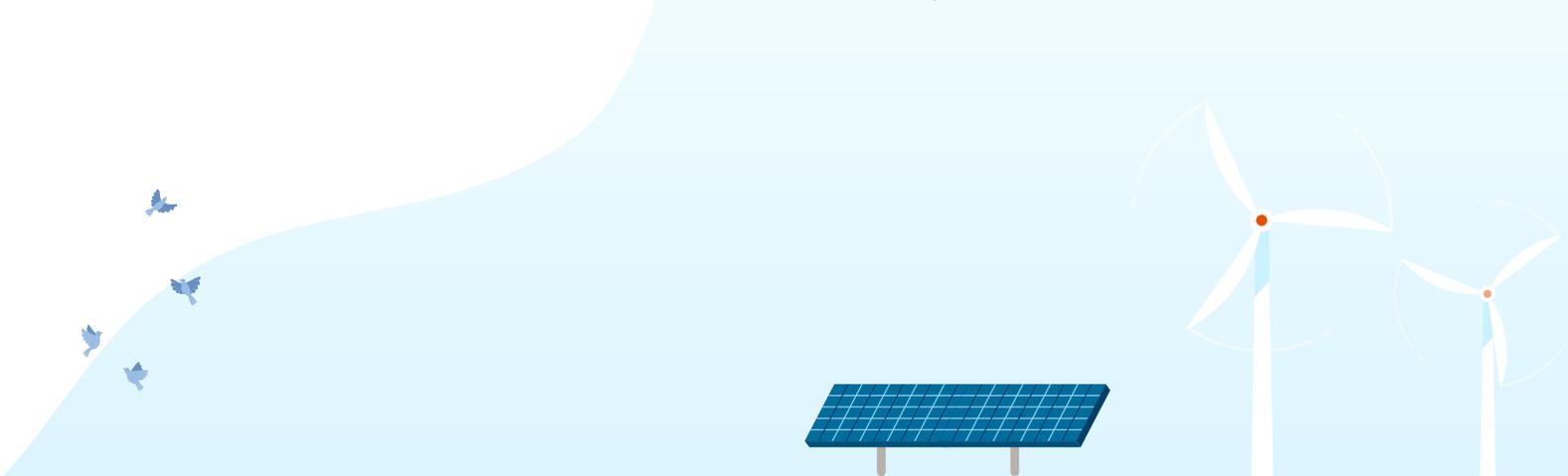
**Gunkul Engineering Public Company Limited is committed to sustainable business development with social responsibility under the promise of “not only the energy, we care”. We do not only care about clean energy innovation but also care about the existence of the planet and the quality of life by creating 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.**

(Dr. Somboon Aueatchasai)  
Chief Executive Officer

### **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.**

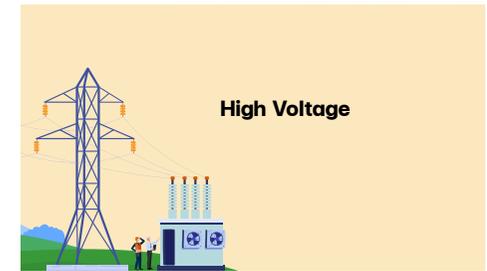
The Company was established in 1982 from the business of importing and distributing equipment for electrical systems and other related equipment to various public and private agencies. Afterwards, the Company had expanded the business of equipment for the electrical system fully covering production, 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.

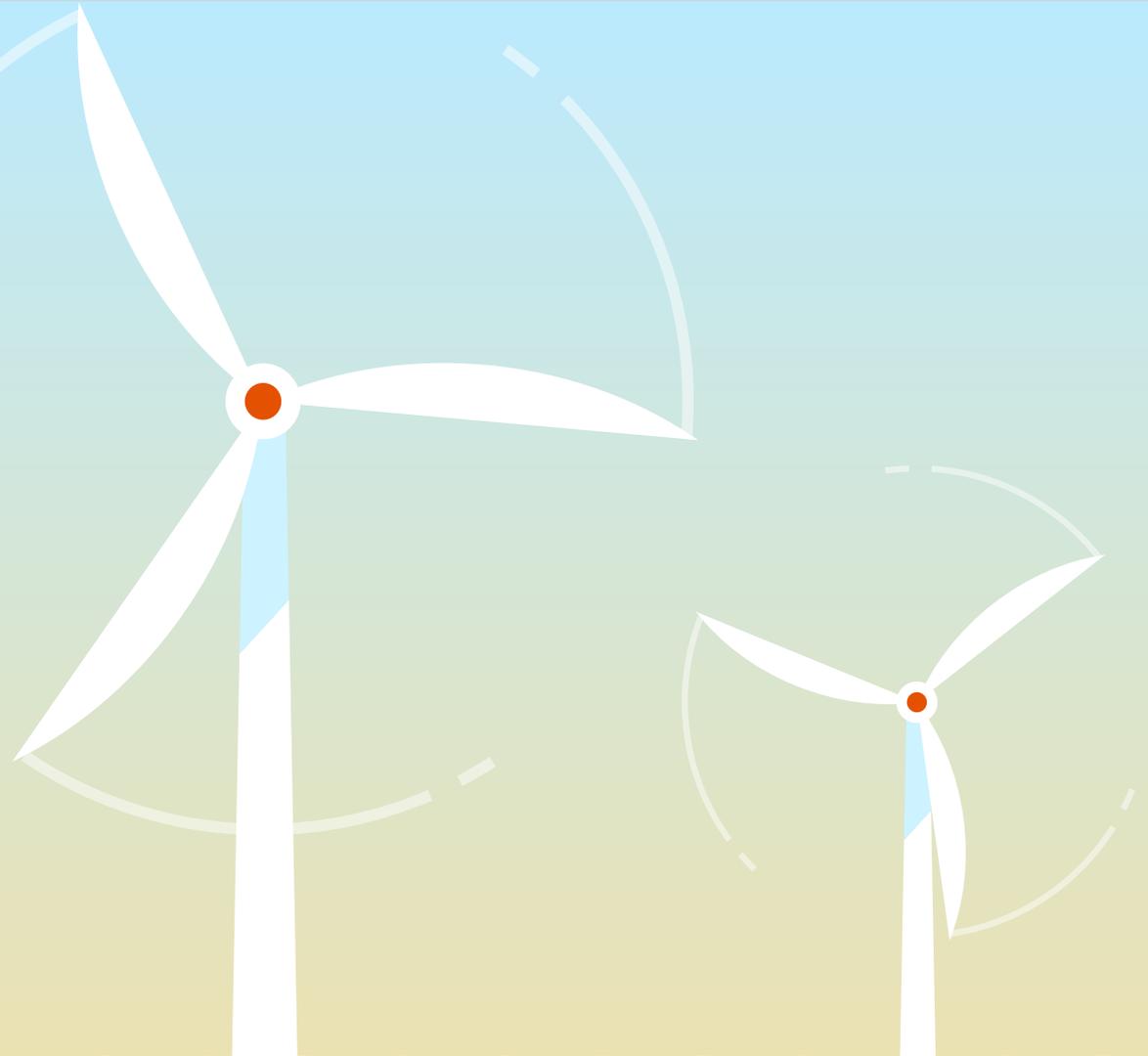


## Part 1 Sustainability Management

Sustainable Development Policy 08

Sustainable Development Goals and Strategies 10

Organizational Structure for Sustainability 14



# 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.

## 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 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 un 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).



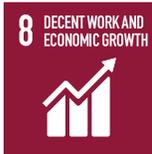
### Sustainable management of water and sanitation for all

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 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.

## 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.

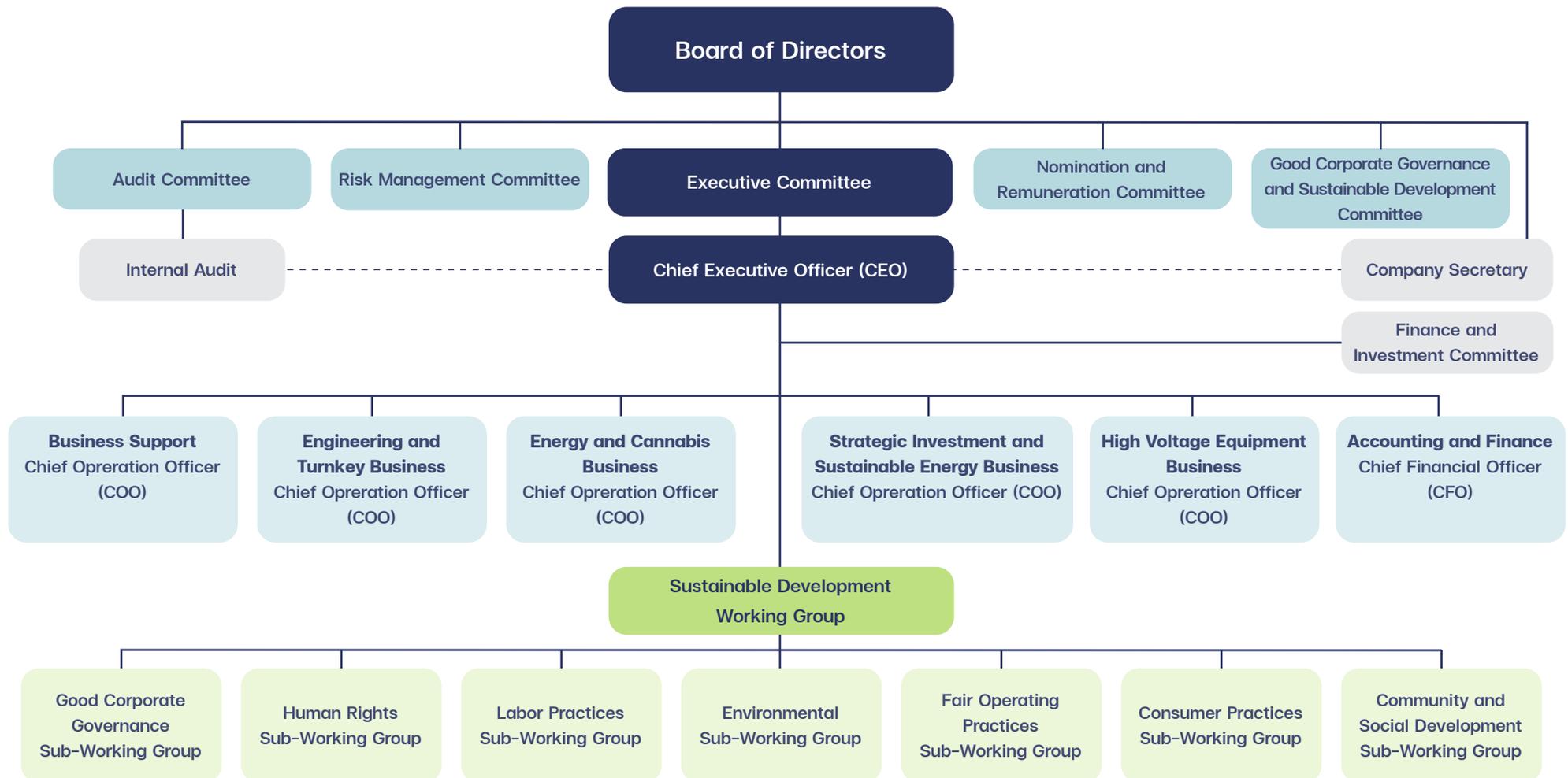
## TIS18001 BS OHSAS 18001

### 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

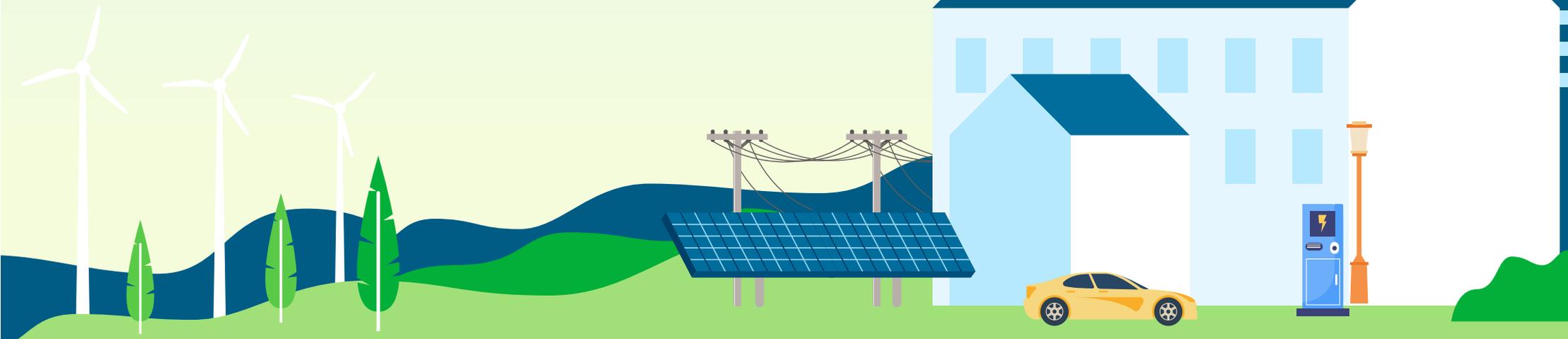
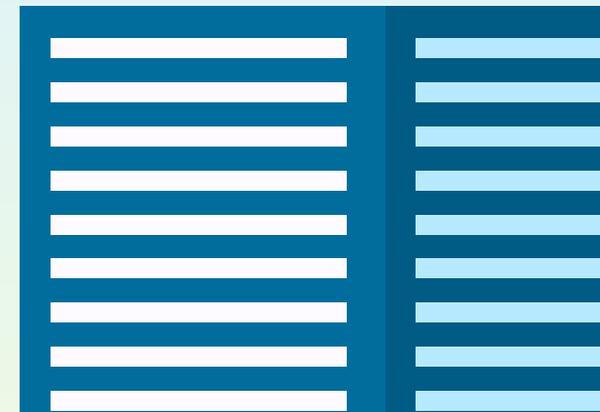
The Company has established an organizational structure for sustainability comprises the Board of Directors to approve policy and sustainable operations, and the Good Corporate Governance and Sustainable Development Committee to review, give opinions and suggestion about guidelines, and continually supervise 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 :





## Part 2 Management of Impacts on Stakeholders in the Business Value Chain

The Business Value Chain	16
Analysis of Stakeholders within the Business Value Chain	17
Materiality Assessment	23



# 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

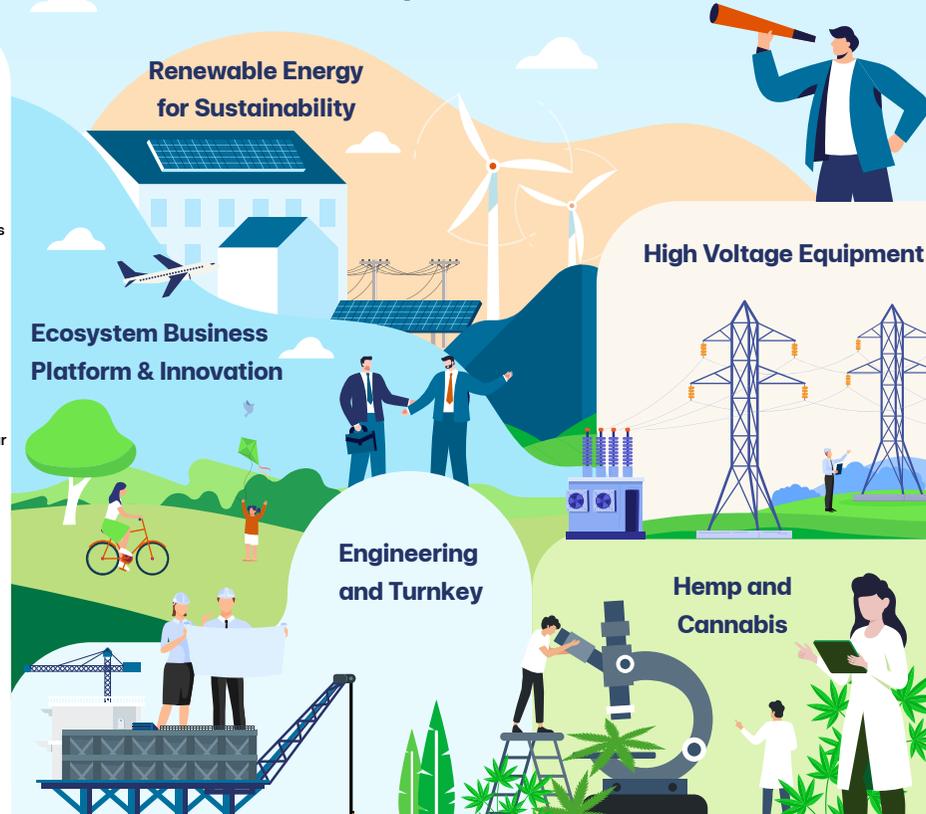
- Community relations and trust
- Engaging with stakeholders
- Business cooperation
- Relationship with partners



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

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

Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
<div> </div> <p><b>Customers</b></p>	<ol style="list-style-type: none"> <li>1. Products and services with quality and safety standards.</li> <li>2. Delivery of products and services under specified conditions and times.</li> <li>3. Providing pre-sales and post-sales such as methods or procedures for using the product, proper consultation, assistance and customer visits.</li> <li>4. Products and services with reasonable prices.</li> <li>5. Maintain and protect customer confidential information.</li> <li>6. Efficient operations meet international standards and do not affect society, social and environment.</li> </ol>	<p><b>Target :</b></p> <ol style="list-style-type: none"> <li>1. Percentage of customer satisfaction with products and services is higher than the previous year.</li> <li>2. No customer complaints.</li> </ol> <p><b>Indicators :</b></p> <ol style="list-style-type: none"> <li>1. Customer satisfaction survey on goods and services.</li> <li>2. The number of complaints.</li> </ol> <p><b>Communication channel :</b></p> <ul style="list-style-type: none"> <li>• Channels for receiving feedback including complaints, suggestions, and opinions on the use of goods and services.</li> <li>• Customer satisfaction survey</li> <li>• Visits, meetings, training/seminars.</li> <li>• Form 56-1 One Report.</li> </ul>	<ol style="list-style-type: none"> <li>1. Provide high-quality, safety, and observable products and services.</li> <li>2. Inspect and control the production of goods and services to meet international standards.</li> <li>3. Set up a quality assurance system throughout the supply chain from the raw material to the customer's hand.</li> <li>4. Employee professional training, serving efficiency services to meet customer's need.</li> <li>5. Set the price of goods and services at a price that is appropriate with the quality and provide information to customers with transparency.</li> <li>6. Continuously research and develop products with suitable and modern technology and innovation with safety.</li> <li>7. Strictly abide by the agreements given to the customers.</li> <li>8. Increasing appropriate and modern channels to the products and services</li> <li>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.</li> <li>10. Promote and support raw materials that are environmentally friendly.</li> <li>11. Customer satisfaction survey results for sustainable development.</li> <li>12. Conducting Personal Data Protection Act (PDPA) Policy.</li> </ol>
<div> </div> <p><b>Competitors</b></p>	<ol style="list-style-type: none"> <li>1. Conduct business with transparency, honesty, and ethical competition with fairness and comply with law.</li> <li>2. Not infringing on copyright or intellectual property rights.</li> <li>3. Meeting and discussion occasionally.</li> </ol>	<p><b>Target :</b></p> <ol style="list-style-type: none"> <li>1. No complaints about copyright infringement issues.</li> </ol> <p><b>Indicators :</b></p> <ol style="list-style-type: none"> <li>1. Number of complaints about copyright infringement issues.</li> </ol> <p><b>Communication channel :</b></p> <ul style="list-style-type: none"> <li>• Business seminars</li> <li>• Website</li> <li>• Form 56-1 One Report.</li> </ul>	<ol style="list-style-type: none"> <li>1. Treat competitors fairly, ethical consideration, not infringing on copyright or intellectual property right and comply with the law.</li> <li>2. Develop communication channels for discussion.</li> </ol>

Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 <p><b>Creditors</b></p>	<ol style="list-style-type: none"> <li>1. Fully and timely pay the debt as specified.</li> <li>2. Compliance with conditions and contractual agreements.</li> <li>3. Manage risk in a secure manner to ensure business continuity.</li> <li>4. Manage correctness of the financial information and to publicize to the public.</li> <li>5. Manage abilities for challenging opportunities.</li> </ol>	<p><b>Target :</b></p> <ol style="list-style-type: none"> <li>1. Comply with conditions and contractual agreements.</li> </ol> <p><b>Indicators :</b></p> <ol style="list-style-type: none"> <li>1. Comply with conditions and contractual agreements.</li> </ol> <p><b>Communication channel :</b></p> <ul style="list-style-type: none"> <li>• Meeting to mutually clarify terms and conditions.</li> <li>• Website</li> <li>• Form 56-1 One Report</li> </ul>	<ol style="list-style-type: none"> <li>1. Discuss or meeting to achieve mutual conclusion on the terms and conditions.</li> <li>2. Exchange knowledge on risk management and communicate the correct and complete information continuously.</li> <li>3. Publicize transparency and complete information continuously.</li> </ol>
 <p><b>Shareholders and Investors</b></p>	<ol style="list-style-type: none"> <li>1. Effective good corporate governance and risk management.</li> <li>2. Business growth steadily and profitable.</li> <li>3. Return on investment (dividend and share price differential) from good and sustainable operations.</li> <li>4. The operation of the business is successful according to the objectives.</li> <li>5. Respect the fairness and retain equal treatment.</li> <li>6. Disclosure of the Company's information based on facts, correctness, completeness, transparency and timely decision making.</li> </ol>	<p><b>Target :</b></p> <ol style="list-style-type: none"> <li>1. The satisfaction survey result for investor activities ranges from good to very good.</li> </ol> <p><b>Indicators :</b></p> <ol style="list-style-type: none"> <li>1. The results of the satisfaction survey for investors activities.</li> </ol> <p><b>Communication channel :</b></p> <ul style="list-style-type: none"> <li>• Annual meeting or announcement of business plans and business intentions.</li> <li>• Website</li> <li>• Form 56-1 One Report</li> <li>• Shareholders meeting</li> </ul>	<ol style="list-style-type: none"> <li>1. Operate the business under the principles of good corporate governance and follow the annual business plan.</li> <li>2. Creating sustainable and balance operating results with risk management concisely.</li> <li>3. Creating trust and appropriate highest return on investment.</li> <li>4. Disclosure of business operation and results with transparency and completeness continuously.</li> </ol>

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

Stakeholders	Expectations	Goals, Indicators, and Communication Channels	Responding to Stakeholders Expectations
 <p><b>Public Sector</b></p>	<ol style="list-style-type: none"> <li>1. Operate in accordance with relevant laws and regulations.</li> <li>2. Promote the good corporate governance comply with the business ethics.</li> <li>3. Anti-Benefit and Corruption Claims.</li> <li>4. Payment of taxes and fees in full and in timely manner.</li> <li>5. Cooperation and support in various filed.</li> <li>6. Manage claims efficiency.</li> </ol>	<p><b>Target :</b></p> <ol style="list-style-type: none"> <li>1. Comply with regulations of the public sector.</li> <li>2. Promote and participate public sector activities.</li> </ol> <p><b>Indicators :</b></p> <ol style="list-style-type: none"> <li>1. Activities incorporated with public sectors.</li> </ol> <p><b>Communication channel :</b></p> <ul style="list-style-type: none"> <li>• Visits, meetings, trainings/seminars.</li> <li>• Verification and inspect following the standards.</li> <li>• Arrange activities incorporated with public sectors.</li> <li>• Form 56-1 One Report</li> </ul>	<ol style="list-style-type: none"> <li>1. Operate business under good corporate governance and in accordance with relevant laws and regulations.</li> <li>2. Disclose information with transparency and regularly.</li> <li>3. Join the anti-corruption network.</li> <li>4. Carry out tax matters according to relevant laws and regulations.</li> <li>5. Cooperate and support activities and operations at the national level.</li> </ol>
 <p><b>Media and Other Organizations</b></p>	<ol style="list-style-type: none"> <li>1. Communicate corporate news with accuracy, timely, timely manner and neutrality and benefit to the society.</li> <li>2. Operate business with responsibility to economy, society and environment.</li> <li>3. Having concrete operation according to policies and measures to manage impacts arising from business operations.</li> <li>4. Participate and have good relationship with media and other organizations.</li> </ol>	<p><b>Target :</b></p> <ol style="list-style-type: none"> <li>1. The news presented internally in an accurate, timely, and timely manner.</li> </ol> <p><b>Indicators :</b></p> <ol style="list-style-type: none"> <li>1. Amount of news presented within the Company with accuracy, speed and timeliness.</li> </ol> <p><b>Communication channel :</b></p> <ul style="list-style-type: none"> <li>• Annual General Meeting of Shareholders or announcement of business plan and intentions and activities on listed companies meeting with investors (Opportunity Day).</li> <li>• Channels for receiveing feedback including complaints, suggestions and comments.</li> <li>• Website</li> <li>• Form 56-1 One Report</li> </ul>	<ol style="list-style-type: none"> <li>1. Submit actual and netural operational information regularly after completion of operation.</li> <li>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.</li> <li>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.</li> </ol>

# 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

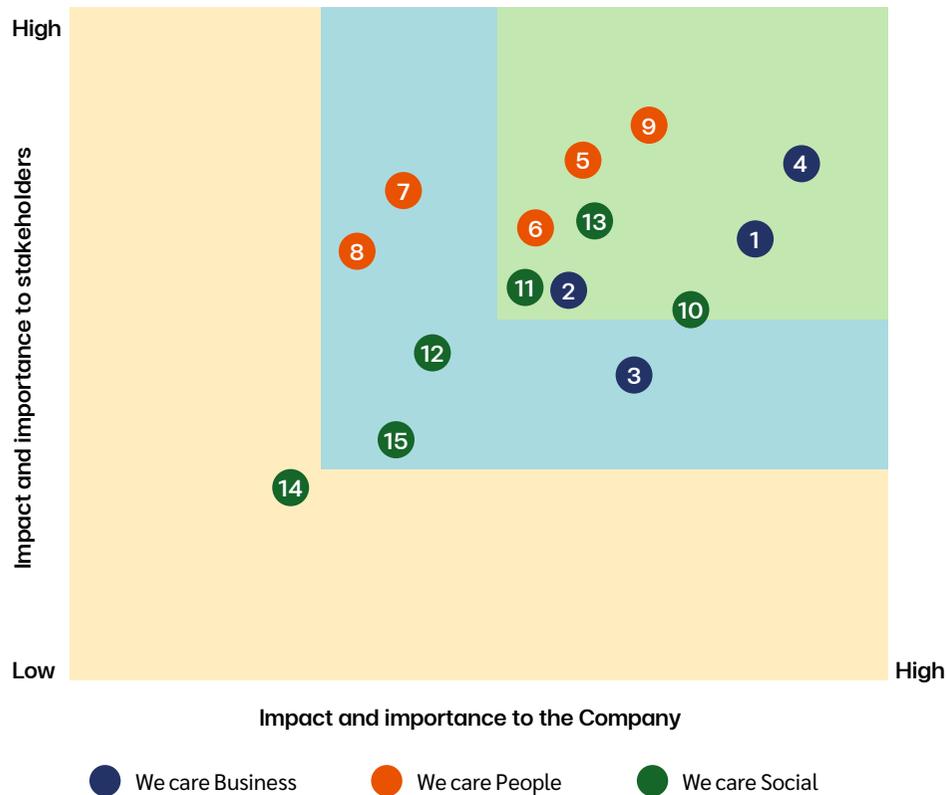
Followed up on operational results that are consistent with the sustainable issue with all 15 key issues. The results have been reported by the Board of Directors and disclosed such the information to the public in various channels such as the Form 56-1 One Report, website, shareholders' meeting and 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"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Business Partners</li> <li>Customers</li> <li>Competitors</li> <li>Shareholders and Investors</li> <li>Creditor</li> <li>Public Sector</li> <li>Community, Society and Environment</li> <li>Media and Other Organizations</li> </ul>		<ul style="list-style-type: none"> <li>GRI 2-9</li> <li>GRI 2-18</li> <li>GRI 3</li> <li>GRI 205</li> <li>GRI 207</li> </ul>	<ul style="list-style-type: none"> <li>Good corporate governance</li> <li>Anti-Corruption</li> <li>Tax Management</li> </ul>
Risk management during crisis and abnormal state	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Creditor</li> <li>Shareholders and Investors</li> </ul>		<ul style="list-style-type: none"> <li>GRI 201</li> <li>GRI 3</li> </ul>	<ul style="list-style-type: none"> <li>Risk and crisis management</li> </ul>
Sustainable supply chain management	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Customers</li> <li>Business Partners</li> <li>Public Sectors</li> <li>Community, Society and Environment</li> </ul>	 	<ul style="list-style-type: none"> <li>GRI 2-6</li> <li>GRI 3</li> <li>GRI 308</li> <li>GRI 407</li> <li>GRI 408</li> <li>GRI 409</li> <li>GRI 414</li> </ul>	<ul style="list-style-type: none"> <li>Supply chain management</li> </ul>
Development of Technology and Innovation	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Customers</li> <li>Business Partners</li> <li>Competitors</li> <li>Shareholders and Investors</li> <li>Community, Society and Environment</li> </ul>	 	<ul style="list-style-type: none"> <li>GRI 3</li> </ul>	<ul style="list-style-type: none"> <li>Customers relationship management</li> <li>Innovation for social development</li> </ul>

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"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Customers</li> <li>Business Partners</li> <li>Public sector</li> <li>Community, Society and Environment</li> </ul>	 	<ul style="list-style-type: none"> <li>GRI 3</li> <li>GRI 403</li> </ul>	<ul style="list-style-type: none"> <li>Occupational health, safety and environment in work place</li> </ul>
Labor management and human rights	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Customers</li> <li>Business Partners</li> <li>Shareholders and Investors</li> <li>Public Sector</li> <li>Community, Society and Environment</li> </ul>	    	<ul style="list-style-type: none"> <li>GRI 3</li> <li>GRI 401</li> <li>GRI 402</li> <li>GRI 403</li> <li>GRI 404</li> <li>GRI 405</li> <li>GRI 418</li> </ul>	<ul style="list-style-type: none"> <li>Human rights approach</li> </ul>
Employees knowledge and skills development	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Customers</li> <li>Business Partners</li> <li>Public sectors</li> <li>Community, Society and Environment</li> </ul>		<ul style="list-style-type: none"> <li>GRI 3</li> <li>GRI 404</li> </ul>	<ul style="list-style-type: none"> <li>Human resource management</li> </ul>
Employee remuneration and retention plan	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Shareholders and Investors</li> </ul>		<ul style="list-style-type: none"> <li>GRI 3</li> <li>GRI 401</li> </ul>	<ul style="list-style-type: none"> <li>Human resource management</li> </ul>
Stakeholders engagement to the Company	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Business Partners</li> <li>Customers</li> <li>Competitors</li> <li>Shareholders and Investors</li> <li>Creditors</li> <li>Public Sector</li> <li>Community, Society and Environment</li> <li>Media and Other Organizations</li> </ul>	          	<ul style="list-style-type: none"> <li>GRI 3</li> <li>GRI 2-29</li> <li>GRI 2-30</li> <li>GRI 3</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholders operating plan</li> </ul>

Sustainability Key Issues	Impact Scope		Consistency		Reporting Topics
	Internal	External	Sustainable Development Goals (SDGs)	Global Reporting Initiative (GRI)	
Waste management from the operation	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Business Partners</li> <li>Public Sector</li> <li>Community, Society and Environment</li> </ul>	 	<ul style="list-style-type: none"> <li>GRI 3</li> <li>GRI 306</li> </ul>	<ul style="list-style-type: none"> <li>Waste and pollution management</li> </ul>
Community and social relation development	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Customers</li> <li>Community, Society and Environment</li> </ul>	 	<ul style="list-style-type: none"> <li>GRI 3</li> <li>GRI 413</li> </ul>	<ul style="list-style-type: none"> <li>Community and Social responsibility</li> </ul>
Biodiversity management	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Community, Society and Environment</li> <li>Public Sector</li> </ul>		<ul style="list-style-type: none"> <li>GRI 3</li> <li>GRI 304</li> </ul>	<ul style="list-style-type: none"> <li>Environmental responsibility</li> <li>Greenhouse gas emissions management</li> </ul>
Climate change management	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Business Partners</li> <li>Shareholders and Investors</li> <li>Public Sector</li> <li>Community, Society and Environment</li> </ul>	    	<ul style="list-style-type: none"> <li>GRI 3</li> <li>GRI 302</li> <li>GRI 303</li> <li>GRI 305</li> <li>GRI 306</li> </ul>	<ul style="list-style-type: none"> <li>Greenhouse gas emissions management</li> </ul>
Water management	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Business Partners</li> <li>Shareholders and Investors</li> <li>Public Sector</li> <li>Community, Society and Environment</li> </ul>	 	<ul style="list-style-type: none"> <li>GRI 3</li> <li>GRI 303</li> </ul>	<ul style="list-style-type: none"> <li>Water management</li> </ul>
Energy management	<ul style="list-style-type: none"> <li>Employee</li> </ul>	<ul style="list-style-type: none"> <li>Business Partners</li> <li>Shareholders and Investors</li> <li>Public Sector</li> <li>Community, Society and Environment</li> </ul>	 	<ul style="list-style-type: none"> <li>GRI 3</li> <li>GRI 302</li> </ul>	<ul style="list-style-type: none"> <li>Energy Management</li> </ul>

## Part 3 Sustainability Objectives and Performance

<b>For Growing Business</b>	29
Good Corporate Governance	30
Anti-Corruption	31
Risk and Crisis Management	35
Supply Chain Management	37
Tax Management	42
<b>For a Livable Society</b>	43
Human Rights Approach	44
Human Resource Management	46
Safety, Occupational Health, and Working Environment Management	56
Customer Relationship Management	61
Community and Social Responsibility	66
Innovation for Social Development	78
<b>For the Sustainable Environment</b>	86
Environmental Responsibility	87
Greenhouse Gas Emission Management	91
Energy Management	96
Water Management	99
Waste and Pollution Management	101



# 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 technological 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
<b>Average Score</b>	<b>94</b>	<b>95</b>	<b>97</b>	<b>97</b>

## Anti-Corruption

Target in 2022	Performance in 2022
<b>None</b> Case of fraud and corruption complaints	<b>None</b> 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"> <li>The executives and employees implement Anti-Corruption and Whistle Blowing policy in their working process across the organization.</li> <li>Organize anti-corruption course from external speaker for the executives and employees to enhance knowledge regarding anti-corruption.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Create an organizational culture to be and anti-corruption organization to ensure stakeholders that the Company will operate business with utmost transparency.</li> <li>Encourage partners and stakeholders to join anti-corruption network and become a member of Thai Private Sector Collective Action Against Corruption : CAC).</li> </ul>

### 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 :

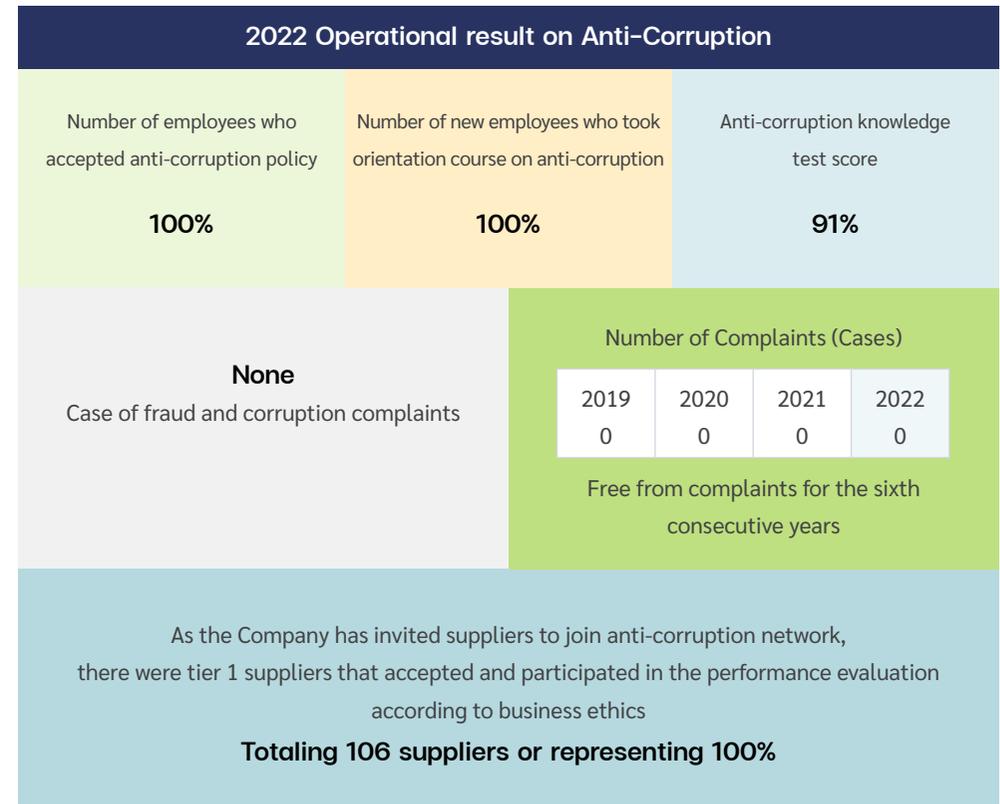
### Whistle Blowing or Complaint relating to Corruption Channels

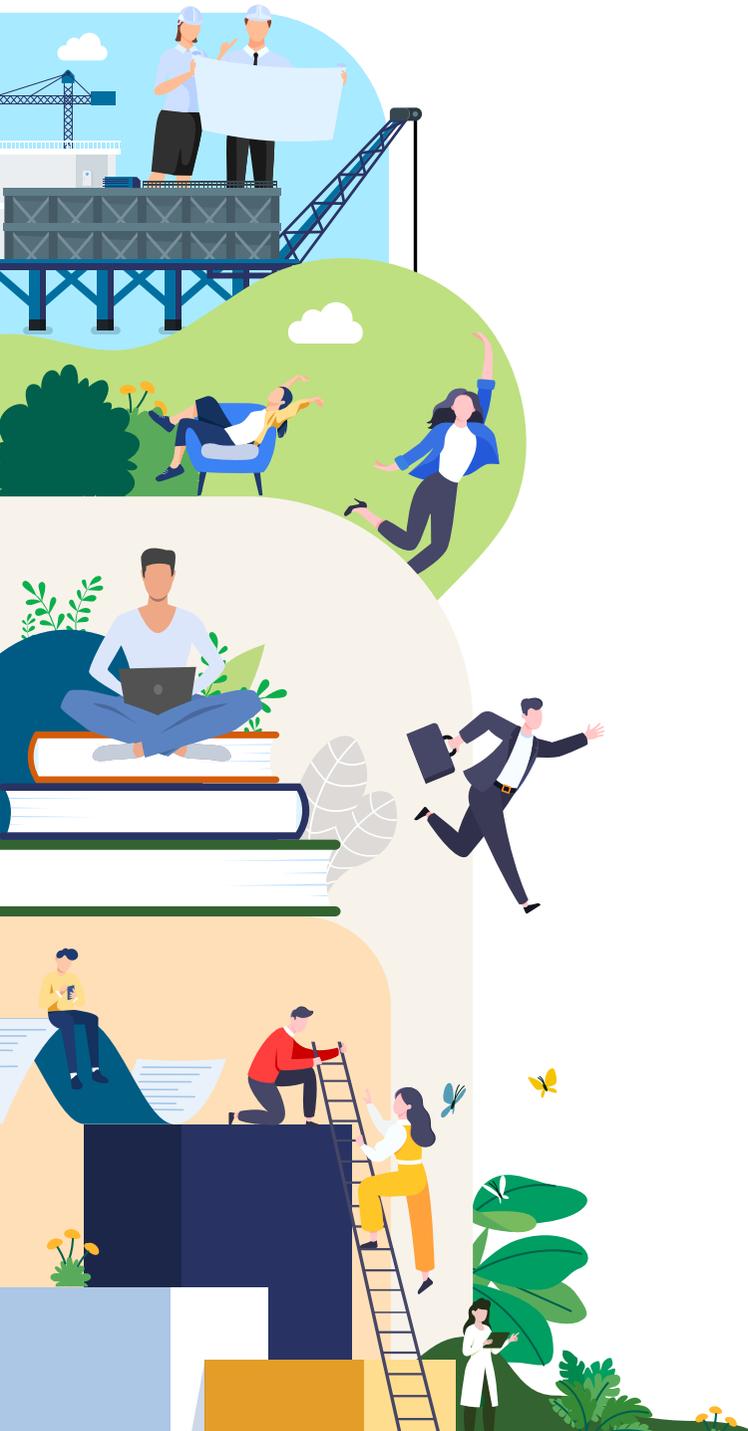
	<b>The Audit Committee's E-mail :</b> <a href="mailto:audit_committee@gunkul.com">audit_committee@gunkul.com</a>
	<b>The Company's website :</b> <a href="http://www.gunkul.com">www.gunkul.com</a> , at "Whistleblowing form"
	<b>Sealed postage to Chairman of the Audit Committee</b> Gunkul Engineering Public Company Limited 1177 Pearl Bangkok Building, 8 <sup>th</sup> Floor, Phahonyothin Road Phayathai, Phayathai, Bangkok 10400
	<b>"Whistle Blowing and Corruption Complaints Box"</b> 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.





## 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 <b>100.00</b>	percentage of new suppliers selected for the evaluation <b>100.00</b>
percentage of suppliers who participated in the performance assessment according to supplier code of conduct <b>100.00</b>	percentage of suppliers who participated in the performance assessment according to supplier code of conduct <b>100.00</b>
percentage of suppliers who received sustainability assessment covering economic, social and environmental (ESG) issues <b>100.00</b>	percentage of suppliers who received sustainability assessment covering economic, social and environmental (ESG) issues <b>100.00</b>
percentage of the Green procurement <b>2.00</b> (in respect of the procurement of all office equipment)	percentage of the Green procurement <b>8.16</b> (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 :



## 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
<b>Total</b>	<b>1,268</b>	<b>8,248.50</b>			



### 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
<b>Total</b>		<b>349</b>

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

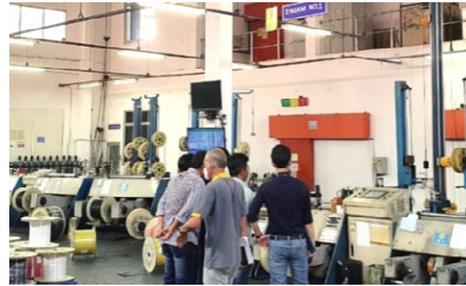
### Management and Control Guidelines

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.

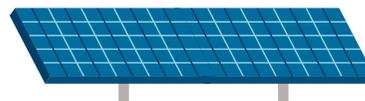
**106 people** who are Critical Supplier Tier 1 and have a direct impact on the Company

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 strengthening 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
<b>None</b> Case of labor issues and human rights complaints	<b>None</b> Case of labor issues and human rights complaints

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 :



<b>Respect for Human Dignity</b>	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.
<b>Promote Equality</b>	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.
<b>Respect Different Opinions</b>	Respect different opinions, freedom of religion, beliefs, traditions and cultures, including the privacy and confidentiality of those who involved.
<b>Manage Human Resources Fairly without Discrimination</b>	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.
<b>Directly Communicate with Stakeholders</b>	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.
<b>Adhere to Morality, Ethics, and Professionalism</b>	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

	<b>The Audit Committee’s E-mail</b> : <a href="mailto:audit_committee@gunkul.com">audit_committee@gunkul.com</a>
	<b>The Company’s website</b> : <a href="http://www.gunkul.com">www.gunkul.com</a> , at “Whistleblowing form”
	<b>Sealed postage to Chairman of the Audit Committee</b> Gunkul Engineering Public Company Limited 1177 Pearl Bangkok Building, 8 <sup>th</sup> Floor, Phahonyothin Road Phayathai, Phayathai, Bangkok 10400
	<b>“Whistle Blowing and Corruption Complaints Box”</b> 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.

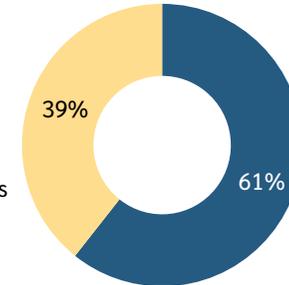
Gunkul Engineering PCL has awarded good for large business sector category and G.K. Assembly Co., Ltd. has received consolation award for medium-sized business sector. These awards reflect the Company's commitment to business development and operation under principles of respect for human rights, that 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**



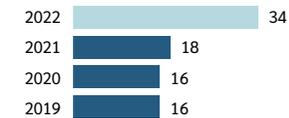
Average Training Hours  
**5.61 hour/person/year**



Promotion Rate with Special Projects

(Excluding promotion according to age of work)

**34 Persons**



Annual Scholarships for Employees' Children, total  
**86 Scholarship**

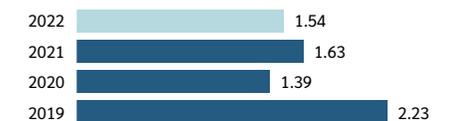
Total 470,000 Baht



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
<b>Total employees (persons)</b>	844	964	959	1,219
Monthly	716	854	849	1,051
Daily	128	110	110	168
<b>Number of employees by type of employment (persons)</b>				
Full Time	718	791	835	1,033
Contracted	126	173	124	186
<b>Number of employees by gender (persons)</b>				
Mail	538	603	610	739
Femail	306	361	349	480
<b>Number of employees by othe hiring (persons)</b>				
Disabled	2	7	8	11
Elderly	5	6	8	11
<b>Number of employees by employee level (persons)</b>				
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
<b>New employess employment rate (%)</b>	2.42	1.90	1.84	3.53
<b>Employee turnover rate (%)</b> <small>(Excluding temporary staff)</small>	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 <b>9 hour/ person/ year</b>	Average Training Hours <b>5.61 hour/ person/ year</b>

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 attitute 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

### Training and Development of Personnel Potential in 2022

**Average Training Hours**  
**5.61 hour/ person/ year**



**Number of courses**  
**95 Courses**



**Number of employees attending the training**  
**1,609 Persons**



**Training cost**  
**1.2 Million Baht**



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

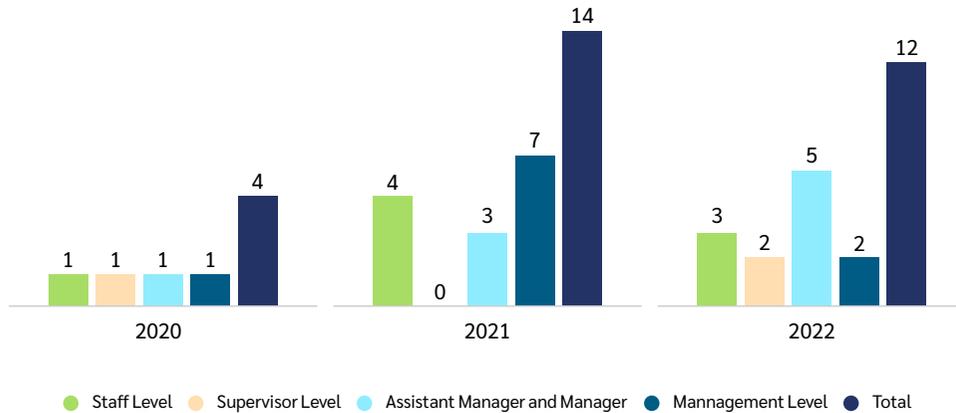
Employee Level	Average number of training hours/ employee at each level			
	2019	2020	2021	2022
1. Operator Level	9.00	5.00	1.21	0.23
2. Staff Level	14.00	7.00	5.91	1.49
3. Supervisor Level	26.00	6.00	7.40	7.71
4. Assistant Manager and Manager Level	36.00	6.00	9.20	10.26
5. Management Level	36.00	23.00	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 :



Remuneraticn and Weifare 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.
- Heath insurane 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 pertitions 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 <b>80.00</b>	Percentage of employee satisfaction and loyalty <b>86.83</b>

The Company promote the equality to all employee level and focuses to build 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 adhere 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 employee 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 result 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 to the success of the organization. The employee can be part of the organization and willing to give suggestion as guideline for the organization human resources development. Moreover, the Company focus on creating the employee work life balance for a happy working life which lead to the employee loyalty with the organization and low turn over rate. In 2022, the Company established activities for bonding among employee 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**

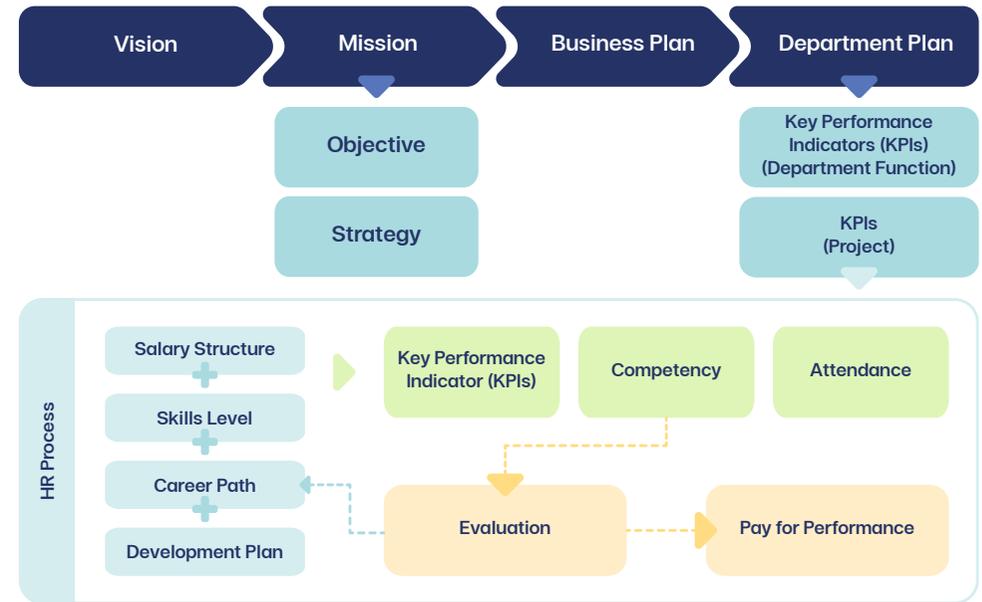


Employee Engagement	2019	2020	2021	2022
Employee satisfaction score (percent)	67	87	86	87
Employee turnover rate (percent)	2.23	1.39	1.63	1.54

### 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 :

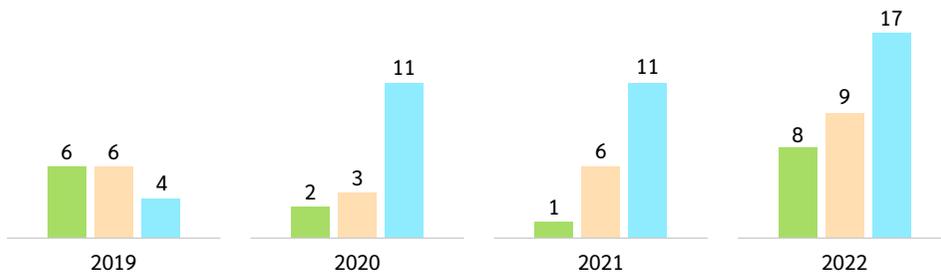
- Consider the qualifications of personnel who have been proposed to be promoted in accordance with the policies, regulations, and rules set by the Company in accordance with the succession plan.
- Consider problems, obstacles and other factors that related to the organization’s human resource management.
- 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
<b>Total number of employees who are promoted each year</b>	<b>16</b>	<b>16</b>	<b>18</b>	<b>34</b>



● Management Level ● Assistant Manager and Manager ● Supervisor Level

## 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) <b>Zero case</b>	Number of Time-off accidents of more than 3 days (LTIFR) <b>1.44</b>
The rate of Lost Time Injury of more than 1 days <b>Decreased 5 percent</b> (case per 1,000,000 working hours)	The rate of Lost Time Injury of more than 1 days <b>1.79 Increased 16.99 percent</b>

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
 <b>Working at height</b>	<ul style="list-style-type: none"> <li>• Safety analysis</li> <li>• Inspection and understanding the safety analysis for working at height</li> <li>• Testing the safety prior working and the usage of the equipment, machine and also the surrounding</li> </ul>
 <b>Working in heat with spark and using of chemical in production line</b>	<ul style="list-style-type: none"> <li>• Inspect the readiness of the equipment</li> <li>• Safety equipment inspection plan</li> <li>• Fire evacuation drill and chemical spill emergency plan</li> </ul>
 <b>Working in confined space</b>	<ul style="list-style-type: none"> <li>• Safety analysis</li> <li>• Permission to work in confined space</li> <li>• Air and hazardous gases</li> <li>• Using confined space ventilator</li> </ul>
 <b>Working with machine</b>	<ul style="list-style-type: none"> <li>• Training for machine using instruction and awareness</li> <li>• Inspect the readiness of the machine</li> <li>• Accident report and preventive measure</li> <li>• Create controlling equipment</li> </ul>

## 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 <b>90.00</b>	Percentage of customer satisfaction <b>94.17</b>
<b>None</b> Number of complaints about products and services	<b>None</b> 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

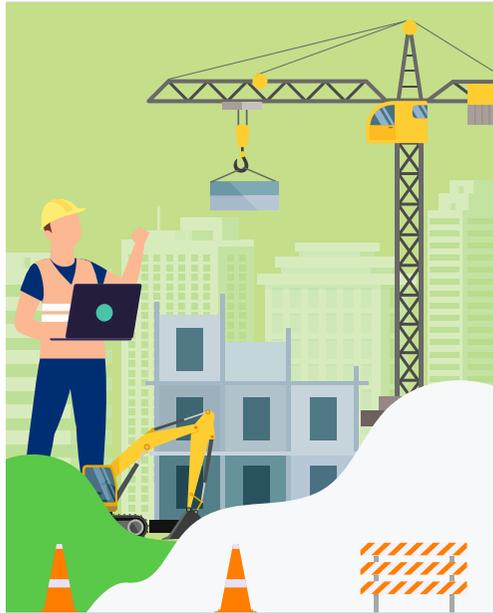
The Company intent to develop for **“good living quality of customers and being energy partnership with our customers”** with intention to develop for better living quality and environment not only for satisfaction but including the quality of living of the users being develop for better. Therefore, 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 Company manage relationship with customers cover all group of busineses 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 technologies 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.



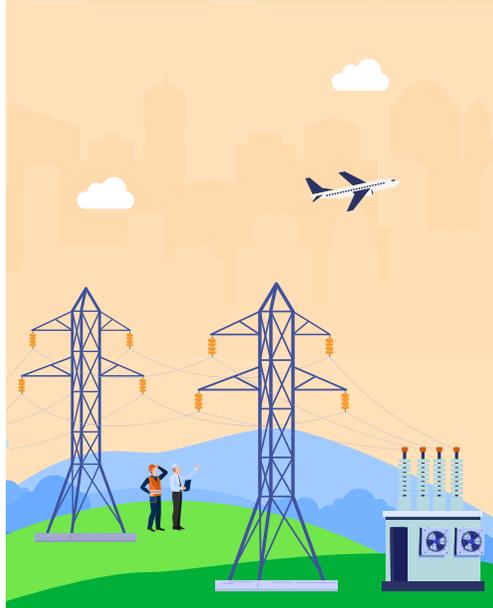
### Integrated Engineering and Turnkey Business

- 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.



### 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.



### 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.



### 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 ให้เป็นไปตามมาตรฐานสินค้าที่กำหนด (LPS/EGAT)**

**IEC** International Electrotechnical Commission  
ได้รับการรับรองผลิตภัณฑ์ตามฐานสากล (UL+IEC)

**จ.น.ม.ค. สมว. อุปรณนิหะ**

**ISO** 9001 - 2018  
ระบบบริหารงานคุณภาพตามมาตรฐานสากล

**ISO** 14001:2015  
ระบบการจัดการด้านสิ่งแวดล้อม

**TIS18001 และ BS OHSAS 18001**  
มาตรฐานระบบการจัดการอาชีวอนามัยและความปลอดภัย  
มาตรฐานระบบการจัดการ

**ISO 17025 CERTIFIED**  
ระบบคุณภาพห้องปฏิบัติการตามมาตรฐานสากล



### 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)

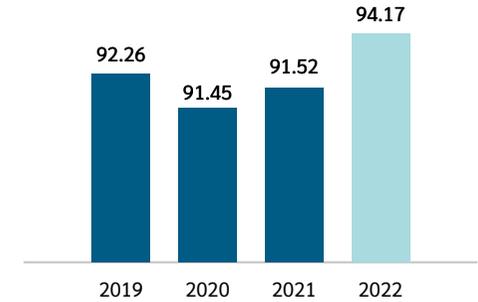


in year 2022 Central underground cable team supporting bowling match, PEA NE 1 (Central)

## 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
<b>Average</b>	<b>94.17</b>



## Community and Social Responsibility

Target in 2022	Performance in 2022
Overall community satisfaction and engagement not less than Percentage <b>80.00</b>	Overall community satisfaction and engagement Percentage <b>74.94</b>
<b>None</b> Case of significant complaints on community issue	<b>None</b> 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 UPATE 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.



## 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.



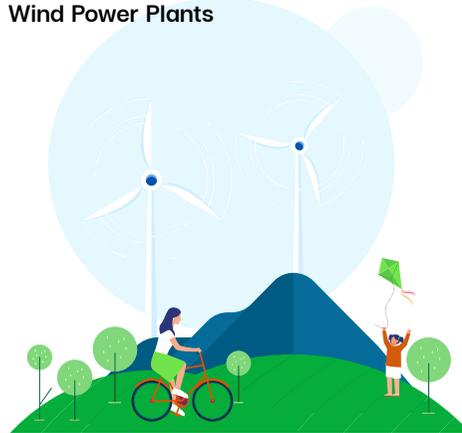
### Supported the establishment of a waiting center for children and youth in the area of the Dusit District Office.

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 1<sup>st</sup> 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



### 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.



### 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 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



### 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.



### 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.

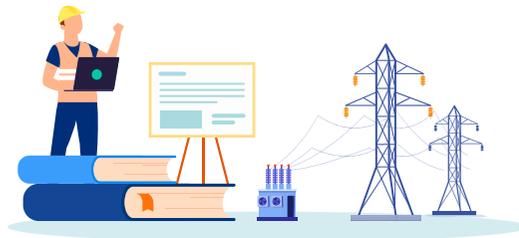
## Operational Results related to Community and Social Responsibility

### 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](http://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

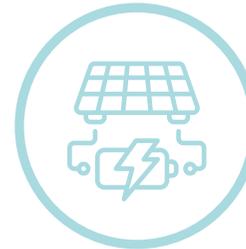
From world megatrends into new dimension of full clean energy management and sustainable business growth, in addition to business development to support modern, sustainable, stable and affordable energy for consumers according to Goal 7 of Sustainable Development Goals (SDGs), another important goal 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.



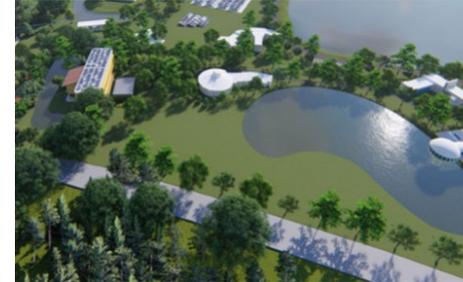
- **P2P Energy Trading Platform** Created Smart Village with solar cell and let the resident try selling and buying electrical energy that are generated in the form of P2P Energy Trading on block chain through specifically-created application.



- **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.



### 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"> <li>Worked in 2 steps</li> <li>Production amount 560 pieces/ day</li> </ul>	<ul style="list-style-type: none"> <li>Worked in 1 step</li> <li>Production amount 1,050 pieces/ day</li> </ul>
2.	Increased the size of gutter blade for cutting channels steel		<ul style="list-style-type: none"> <li>Used 2-4 workers to grind 100%</li> </ul>	<ul style="list-style-type: none"> <li>No grinding process</li> </ul>
3.	Made a jig to hold the work piece		<ul style="list-style-type: none"> <li>Used 148 seconds/ set</li> <li>Production amount 170 sets/ day</li> </ul>	<ul style="list-style-type: none"> <li>Used 112 seconds/ set</li> <li>Production amount 225 sets/ day</li> </ul>
4.	Made 2 shooting jig 2 at a time		<ul style="list-style-type: none"> <li>Used 162 seconds/ set</li> <li>Production amount 156 sets/ day</li> </ul>	<ul style="list-style-type: none"> <li>Used 126 seconds/ set</li> <li>Production amount 200 sets/ day</li> </ul>

## 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

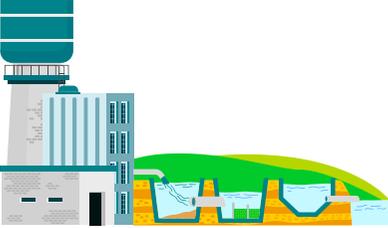
The Company has continuously developed to deliver the best products and services to customers, improve the quality of life for people in the society, and responsible for the environment, including striving to develop sustainable business growth to help mitigate the effects of climate change. Therefore, 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 style="text-align: center;"><b>Air Quality</b></p>	 <p style="text-align: center;"><b>Low level</b></p>	<ol style="list-style-type: none"> <li>1. Measure to control Air Quality Workplace to meet the standards of the Department of Industrial Works or other related standards.</li> <li>2. Improve and develop environmentally friendly technologies to develop air quality control systems within the factory.</li> <li>3. Spray water at the point that causes dust in the project area.</li> <li>4. Do not burn solid waste or others in the project area.</li> <li>5. Add green areas along the periphery of the project to prevent the spread of dust into the air.</li> <li>6. Take care and maintain engines, machines or tools that burn fuel and generate exhaust or dust to always be in a good condition.</li> </ol>
 <p style="text-align: center;"><b>Greenhouse Gas Management</b></p>	 <p style="text-align: center;"><b>Low level</b></p>	<ol style="list-style-type: none"> <li>1. Assess greenhouse gas emissions from corporate activities and verified by the certification authority that meets international standards.</li> <li>2. Implement a project or activity to reduce the use of resources energy and greenhouse gas emissions.</li> <li>3. Promote the utilization of resources for maximum benefit and reuse waste for maximum benefit according to the 3R principles.</li> <li>4. Encourage efficient use of energy and promote the use of renewable energy.</li> <li>5. Improve and develop production processes and work processes by using environmentally friendly technology.</li> <li>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.</li> </ol>
 <p style="text-align: center;"><b>Water Quality</b></p>	 <p style="text-align: center;"><b>Low level</b></p>	<ol style="list-style-type: none"> <li>1. Provide water-saving sanitary ware such as sensor faucets.</li> <li>2. Measure the quality of wastewater (Effluent) to meet the standards of the Department of Industrial Works or other related standards</li> <li>3. Provide a retention pond to collect rainwater that flows into the ground at the construction site.</li> <li>4. Reuse the water in the retention pond, such as spraying the road to the project entrance.</li> <li>5. Campaign to encourage employees and all related parties to participate in saving water.</li> </ol>

Environmental Issue	Impact Level	Preventive and Corrective Measures to Reduce the Impact	
 <p style="text-align: center;"><b>Drainage System</b></p>	 <p style="text-align: center;"><b>Low level</b></p>	<ol style="list-style-type: none"> <li>1. Provide a sediment trap before draining water to the outside of the project.</li> <li>2. Clean the gutter around the project regularly.</li> <li>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.</li> <li>4. Check the drainage system, water channels around the project, and sediment trap system regularly</li> </ol>	
 <p style="text-align: center;"><b>Sound</b></p>	 <p style="text-align: center;"><b>Intermediate level</b></p>	<p><b>Solar Power Plant</b></p> <ol style="list-style-type: none"> <li>1. Do not perform any activity that causes noise outside of the working hours. (8.00 a.m. - 17.00 p.m.)</li> <li>2. Avoid simultaneously using maintenance equipment that generates high noise.</li> <li>3. Maintenance of tools and machines to always be in a good condition.</li> <li>4. Provide noise pollution protection devices, such as ear plugs for employees and operators to wear while working.</li> <li>5. Provide a rotation of workers working in areas with high noise sources according to law.</li> </ol> <p><b>High-voltage and renewable energy equipment factory</b></p> <ol style="list-style-type: none"> <li>1. Install the machine to have an appropriate distance from the factory fence and the community.</li> <li>2. Regularly maintain and modify various parts of the machine.</li> <li>3. Make a fence to prevent sound and make a sound barrier around the machine.</li> <li>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.</li> </ol>	<p><b>Wind Power Plant</b></p> <ol style="list-style-type: none"> <li>1. Check and maintain the machine according to the period specified in the specifications of the equipment to prevent noise caused by the machine.</li> <li>2. Create a Noise Contour Map after the project commences by using the results of the study to manage the noise environment.</li> <li>3. Implement according to measures of solar power plant.</li> </ol>

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"> <li>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.</li> <li>2. Campaign to encourage all employees and related parties to participate in energy saving.</li> </ol>
 <p>Non-Hazardous Waste Management</p>	 <p>Low level</p>	<ol style="list-style-type: none"> <li>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.</li> <li>2. Collect and send waste to treat/ dispose properly.</li> <li>3. Collect reusable waste, forward for recycling and reuse for new use.</li> </ol>
 <p>Waste management from production process</p>	 <p>Low level</p>	<ol style="list-style-type: none"> <li>1. Make a waste list to classify and identify types, including determining methods of elimination/ treatment properly.</li> <li>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.</li> <li>3. Training on how to store, collect, and dispose of waste from the production process.</li> </ol>
 <p>Biodiversity</p>	 <p>Low level</p>	<ol style="list-style-type: none"> <li>1. Against Deforestation.</li> <li>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.</li> <li>3. Promote reforestation to conserve natural resources and maintain the balance of the ecosystem.</li> </ol>

## 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	Contribute	Share
<p>We create energy systems to help mitigate greenhouse gas emissions.</p>	<p>We support Thailand in greenhouse gas removal by Developing forest plantations or other carbon sink project.</p>	<p>The energy attributes / carbon credits which are generated from our green projects can be shared to others in reaching their climate mandates &amp; goals.</p>

“**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 MtCO<sub>2</sub>e 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 Organization

Target in 2022	Performance in 2022
Percentage of decreased of Greenhouse gas emission of the organization <b>5.00</b>	Percentage of increased of Greenhouse gas emission of the organization <b>4.58</b>

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.

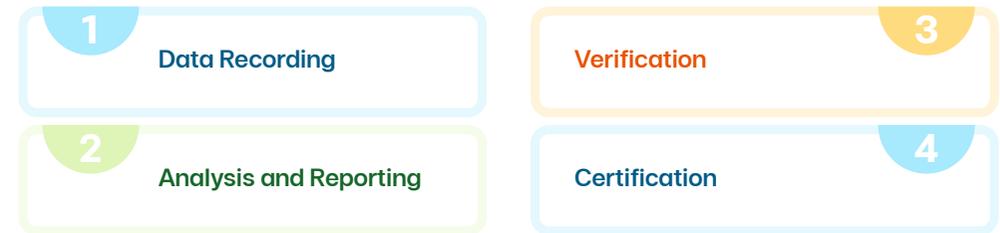
The Company aims to take part in solving the global warming problem seriously apart from developing an innovation in clean energy that is environmentally friendly driving to low carbon society. The Company aims to develop process for reducing greenhouse gas emission from business operation to be able 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
<b>Head office</b>		
1	Gunkul Engineering Public Company Limited	GUNKUL
<b>Renewable Energy Business</b>		
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
<b>Engineering and Turnkey Business <sup>(1)</sup></b>		
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 Conctruction Company Limited	FPC

<sup>(1)</sup> 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<sup>(1)</sup>**

- Wind Project **332,012 RECs**
- Solar Project **149,766 RECs**

<sup>(1)</sup> 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 tCO<sub>2</sub>e<sup>(2)</sup>**

- Wind Project **733,093 tCO<sub>2</sub>e**
- Solar Project **218,099 tCO<sub>2</sub>e**

<sup>(2)</sup> 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 tCO<sub>2</sub>e**

- Head Office and Renewable Energy Business **2,496 tCO<sub>2</sub>e**
- Engineering and Turnkey Business **2,949 tCO<sub>2</sub>e**

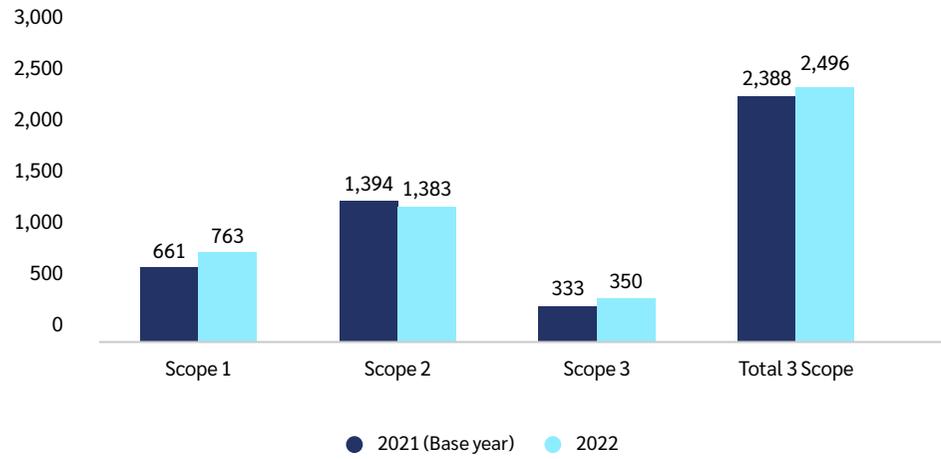
The Company collected corporate greenhouse gas emission data within the specified reporting scope in which such information has been verified by experts from Bureau Veritas Certification (Thailand) LTD. and has been certified for Greenhouse Gas Verification Statement according to measurement review standards 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 <sup>(1)</sup>
	2021	2022	2022
Scope 1 (tCO <sub>2</sub> e)	660.55	763.00	329.00
Scope 2 (tCO <sub>2</sub> e)	1,393.99	1383.00	56.00
Scope 3 (tCO <sub>2</sub> e)	332.24	350.00 <sup>(2)</sup>	2,564.00
Scope 1 + 2 (tCO <sub>2</sub> e)	2,054.54	2,146.00	385.00
<b>Total 3 Scope</b>	<b>2,386.78</b>	<b>2,496.00</b>	<b>2,949.00</b>
Carbon Intensity (3 Scope : Product)	0.0045 tCO <sub>2</sub> e/ MWh	0.0054 tCO <sub>2</sub> e/ MWh	3.20 tCO <sub>2</sub> e/ MB

<sup>(1)</sup> Remark : Engineering and Turnkey Business and High Voltage Equipment Business evaluate the greenhouse gas emission in 2022 as the first year.

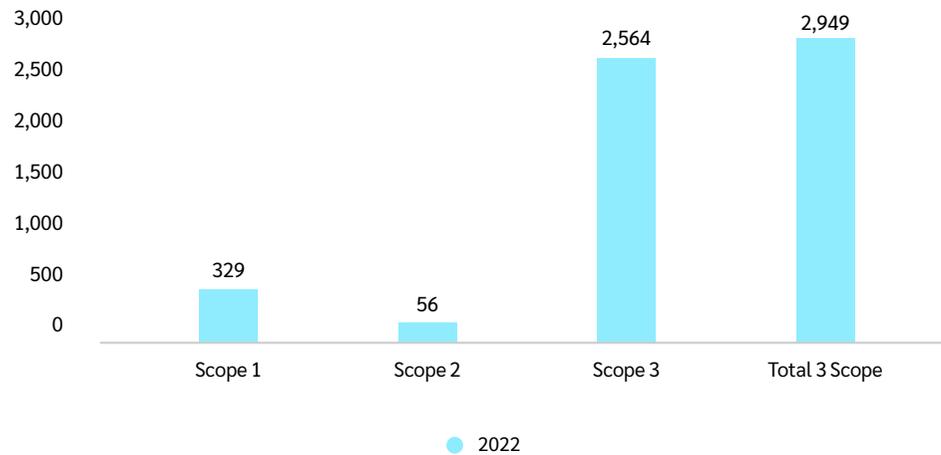
<sup>(2)</sup> Remark : In 2022, the reporting of the data used for calculation of the greenhouse gas emissions of the 3 scopes has been change to report only the greenhouse gas emissions significant source.

### Head Office and Renewable Energy Business (tCO<sub>2</sub>e)



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.

### Engineering and Turnkey Business (tCO<sub>2</sub>e)



## Energy Management

Target in 2022	Performance in 2022
Percentage of energy consumption from outside per number of employees decrease for <b>5.00</b> (kilowatt-hour/ person)	Percentage of energy consumption from outside per number of employee decreased <b>20.59</b> (kilowatt-hour/ person)

Remark : Target and performance in 2022 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
<b>Head Office</b>		
1	Gunkul Engineering Public Company Limited	GUNKUL
<b>Renewable Energy Business</b>		
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
<b>Engineering and Turnkey Business <sup>(1)</sup></b>		
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
<b>High Voltage Equipment Business <sup>(1)</sup></b>		
16	Gunkul Power Developmetn Company Limited	GKA
17	Future Electrical Control Company Limited	GKP

<sup>(1)</sup> 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

<p>Use energy - efficient appliances</p>	<p>Switch off electrical appliances</p>	<p>Unplug</p>
<p>Check electrical appliances regularly</p>	<p>Set air-conditioner timer</p>	<p>Install solar cell than using energy from outside the site instead</p>

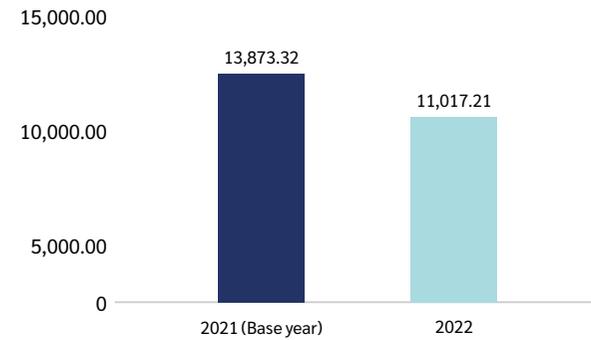
### Energy Saving Performance

#### Energy Saving Performance in 2022

Electricity consumption  
**4,225,136.47 kWh**

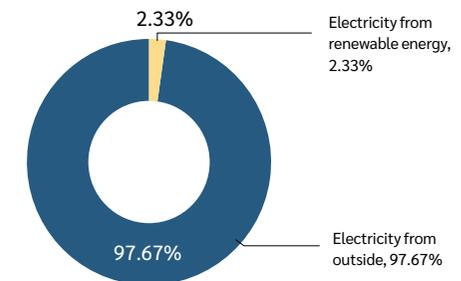
- Head Office and Renewable Energy Business **2,765,319.27 kWh**
- Engineering and Turnkey Business **111,173.75 kWh**
- High Voltage Equipment Business **1,348,643.45 kWh**

Electricity consumption from outside per number of employee of Head Office and Renewable Energy Business <sup>(1)</sup> (kWh/ person)



Electricity consumption from outside  
**4,126,854.02 kWh**

Electricity consumption from renewable energy  
**98,282.45 kWh**



<sup>(1)</sup> 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 <sup>(1)</sup>	High Voltage Equipment Business <sup>(1)</sup>	Total
	2021	2022	2022	2022	2022
Electricity consumption from outside	2,788,536.76	<b>2,765,319.27</b>	111,173.75	1,250,361.00	<b>4,126,854.02</b>
Electricity consumption from renewable energy	N/A	<b>N/A</b>	N/A	98,282.45	<b>98,282.45</b>
Total energy consumption	2,788,536.76	<b>2,765,319.27</b>	111,173.75	1,348,643.45	<b>4,225,136.47</b>
Renewable energy consumption ratio	N/A	<b>N/A</b>	N/A	7.29%	<b>2.33%</b>
Electricity consumption from outside per number of employee (kilowatt-hour/ employee)	13,873.32	<b>11,017.21</b>	646.36	5,275.78	<b>16,939.35</b>

<sup>(1)</sup> 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 <b>5.00</b> (m <sup>3</sup> /employee)	Percentage of water usage per employee decreased <b>34.12</b> (m <sup>3</sup> /employee)

Remark : Target and performance in 2022 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
<b>Head Office</b>		
1	Gunkul Engineering Public Company Limited	GUNKUL
<b>Renewable Energy Business</b>		
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
<b>Engineering and Turnkey Business <sup>(1)</sup></b>		
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
<b>High Voltage Equipment Business <sup>(1)</sup></b>		
16	Gunkul Power Developmetn Company Limited	GKA
17	Future Electrical Control Company Limited	GKP

<sup>(1)</sup> 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.



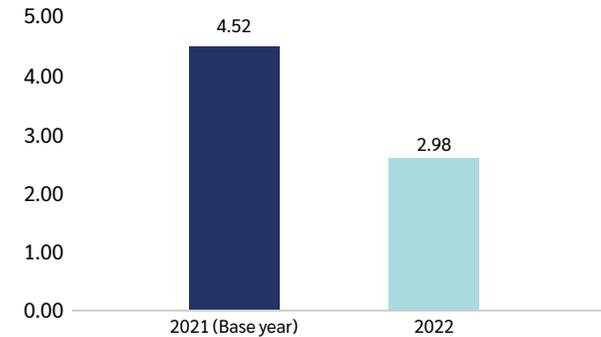
## Water Saving Performance

### Water Saving Performance in 2022

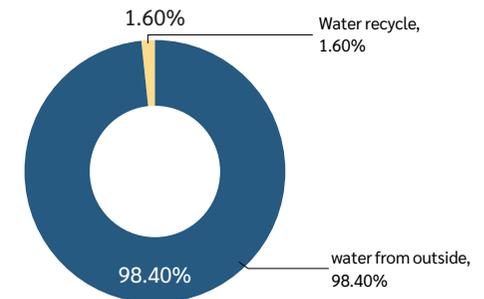
**Water Consumption**  
**61,056.87 m<sup>3</sup>**

- Head Office and Renewable Energy Business **45,760 m<sup>3</sup>**
- Engineering and Turnkey Business **6,655.87 m<sup>3</sup>**
- High Voltage Equipment Business **8,503.00 m<sup>3</sup>**

**Water consumption per employee at Head Office and Renewable Energy Business <sup>(1)</sup> (m<sup>3</sup> per employee)**



**Water consumption from outside**  
**60,918.87 m<sup>3</sup>**  
**Recycle water <sup>(2)</sup>**  
**138 m<sup>3</sup>**



<sup>(1)</sup> Remark : Target and performance in 2022 cover only Head Office and Renewable Energy Business

<sup>(2)</sup> 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 m<sup>3</sup>, equal to 2.98 m<sup>3</sup> per employee which decreased from base year 2021 at 34.12% with 138 m<sup>3</sup> 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 <b>0</b>	The amount of waste from landfill production process <b>1.33</b>

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
<b>Head Office</b>		
1	Gunkul Engineering Public Company Limited	GUNKUL
<b>Renewable Energy Business</b>		
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
<b>Engineering and Turnkey Business</b>		
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 Conctruction Company Limited	FPC
<b>High Voltage Equipment Business</b>		
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.

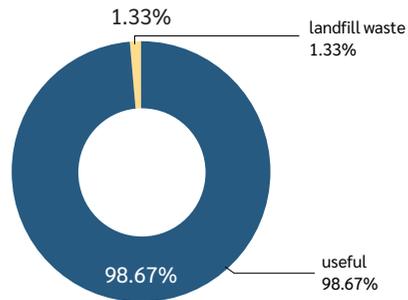


In the year 2022, apart from the process of reducing the amount of waste and pollution or industrial waste, the company has established the zero waste project to encourage employees in the organization to participate in waste management or things that are unused in daily life to return useful such as 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.

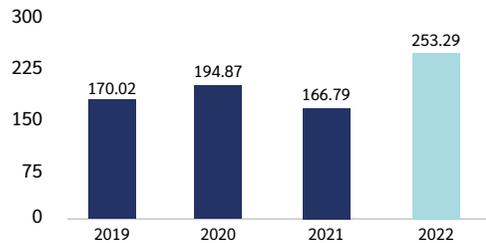
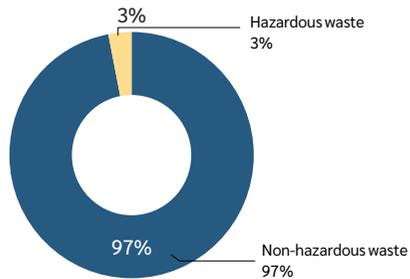
## Operating Results to Reduce the Amount of Waste and Pollution

### 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 **0.061 tons per person**
- Engineering and Turnkey Business Group **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

Scope of This Report	105
Sustainability Performance	107
Disclosure by Indicators	113
Assurance Statement	120



# 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	•	•	•	•	•	•	•
<b>Renewable Energy Business Group</b>									
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
<b>Engineering and Turnkey</b>									
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	•	•	-	•	•	•	•
<b>High-Voltage Equipment Business Group</b>									
20	G.K. Assembly Co., Ltd.	GKA	•	•	•	-	•	•	•
21	G.K.Power Products Co., Ltd.	GKP	•	•	•	-	•	•	•
22	K.N.P. Supply Co., Ltd.	KNP	•	•	-	-	-	-	-
<b>Ecosystem Business Platform &amp; Innovation Business Group</b>									
23	Future Energy Corporation Co., Ltd.	FE	•	•	-	-	-	-	-
24	Gunkul Godungfaifaa Platform Co., Ltd.	GDFP	•	•	-	-	-	-	-
<b>Hemp and Cannabis Business Group</b>									
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
<b>Total employees</b>					
Total employees	Person	844	964	959	1,219
<b>Number of employees by gender</b>					
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
<b>Number of employees by age</b>					
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
<b>Number of employees by ethnicity</b>					
Thai	Person	-	916	914	1,161
	%	-	95.02	95.31	95.24
Foreigners	Person	-	48	45	58
	%	-	4.98	4.69	4.76
<b>Number of employees by employment type</b>					
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
<b>Number of employees by other hiring</b>					
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
<b>Number of employees by level</b>					
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
<b>Number of employees by workplace</b>					
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
<b>Number of employees by education</b>					
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
<b>Employees who have been promoted</b>					
Total number of employees who have been promoted	Person	16	16	18	34
	%	1.90	1.66	1.88	3.05
<b>Employees who have been promoted by gender</b>					
Male	Person	-	12	11	24
	%	-	75.00	61.11	70.59
Female	Person	-	4	8	10
	%	-	25.00	44.44	29.41
<b>Employees who have been promoted by level</b>					
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
<b>Level of satisfaction and engagement to the organization</b>					
Level of satisfaction and engagement to the organization	%	67	87	86	87
<b>Employees complaints on labor practices</b>					
Number of complaints	Case	0	0	0	0

## Information on Resignation

Performance Data	Unit	2019	2020	2021	2022
<b>Number of employees to retire</b>					
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
<b>Number of employees who resigned</b>					
Total number of resigned employees	Person	-	100	190	217
Total turnover rate	%	2.23	1.39	1.63	1.54
<b>Number of employees who resigned by gender</b>					
Male	Person	-	83	105	136
	%	-	83.00	55.26	62.67
Female	Person	-	17	85	81
	%	-	17.00	44.74	37.33
<b>Number of new employees</b>					
Total number of new employees	Person	-	220	185	433
New employment rate	%	2.42	1.90	1.84	3.53
<b>Number of new employees by gender</b>					
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
<b>Total number of employees' training and potential development</b>					
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
<b>Average training hours per person by level</b>					
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
<b>Number of death from work</b>					
Number of employees who died from work	Person	0	0	0	0
Number of contractors died from work	Person	0	0	0	0
<b>Number of death from occupational diseases</b>					
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

# Environmental 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 <sup>(1)</sup>	4,225,136.47 <sup>(2)</sup>
Amount of electricity usage from outside	kWh	-	-	3,580,399.76 <sup>(1)</sup>	4,126,854.02 <sup>(2)</sup>
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 <sup>(3)</sup>	11,017.21 <sup>(3)</sup>

<sup>(1)</sup> Note : Operating results cover head office and Renewable Energy business group, and High-voltage Equipment business group.

<sup>(2)</sup> Note : Operating results cover head office and Renewable Energy business group, High-voltage Equipment business group and Engineering and Turnkey business group.

<sup>(3)</sup> 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 <sup>3</sup>	7,754.03 <sup>(1)</sup>	6,229.00 <sup>(1)</sup>	37,310.58 <sup>(2)</sup>	61,056.87 <sup>(3)</sup>
Amount of water usage from outside	m <sup>3</sup>	7,658.03 <sup>(1)</sup>	6,133.00 <sup>(1)</sup>	37,214.58 <sup>(2)</sup>	60,918.87 <sup>(3)</sup>
Amount of circulating water usage	m <sup>3</sup>	96 <sup>(1)</sup>	96 <sup>(1)</sup>	96 <sup>(1)</sup>	138 <sup>(1)</sup>
Proportion of circulating water usage	%	1.24 <sup>(1)</sup>	1.54 <sup>(1)</sup>	1.60 <sup>(1)</sup>	1.60 <sup>(1)</sup>
Amount of tap water usage to number of employees	m <sup>3</sup> to 1 employee	-	-	4.52 <sup>(4)</sup>	2.98 <sup>(4)</sup>

<sup>(1)</sup> Note : Operating results cover High-voltage Equipment business group.

<sup>(2)</sup> Note : Operating results cover head office and Renewable Energy business group, and High-voltage Equipment business group.

<sup>(3)</sup> Note : Operating results cover head office and Renewable Energy business group, High-voltage Equipment business group and Engineering and Turnkey business group.

<sup>(4)</sup> Note : Operating results cover head office and Renewable Energy business group.

## Information on Waste Management

Performance Data	Unit	2019	2020	2021	2022
<b>Waste from production process (Industrial waste)<sup>(1)</sup></b>					
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
<b>General sold waste (Waste in office)<sup>(2)</sup></b>					
Total amount of general sold waste	Ton	-	-	-	143.21
Amount of genral solid waste to number of employees	Ton per person	-	-	-	0.339

<sup>(1)</sup> Note : Operating results cover Renewable Energy business group and High-voltage Equipment business group.

<sup>(2)</sup> 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 <sub>2</sub> e	-	-	2,386.78 <sup>(1)</sup>	5,445.00 <sup>(2)</sup>
Total greenhouse gas emissions (Scope 1)	tCO <sub>2</sub> e	-	-	660.55 <sup>(1)</sup>	1,092.00 <sup>(2)</sup>
Greenhouse gas emissions from energy usage (Scope 2)	tCO <sub>2</sub> e	-	-	1,393.99 <sup>(1)</sup>	1,439.00 <sup>(2)</sup>
Greenhouse gas emissions from other sources (Scope 3)	tCO <sub>2</sub> e	-	-	332.24 <sup>(1)</sup>	2,914.00 <sup>(2)</sup>
Proportion of greenhouse gas emissions to emission factor	tCO <sub>2</sub> e/ MWh	-	-	0.0045 <sup>(1)</sup>	0.0054 <sup>(1)</sup>
	tCO <sub>2</sub> e/ MB	-	-	-	3.20 <sup>(3)</sup>

<sup>(1)</sup> Note : Operating results cover head office and Renewable Energy business group.

<sup>(2)</sup> Note : Operating results cover head office and Renewable Energy business group, and Engineering and Turnkey business group.

<sup>(3)</sup> 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	Engineering and Turnkey Business Group
 <p><b>Greenhouse Gases Verification Statement</b> <i>Assured to</i> <b>Gunkul Engineering Public Company Limited</b> 117, 8<sup>th</sup> Fl., Pearl Bangkok Building, Phaholyothin Rd., Phayathai, Phaya Thai, Bangkok 10400, Thailand</p> <p><b>For Organisation Boundaries Covering</b> Headquarters office: Gunkul Engineering Public Company Limited Solar Power Plant: NK Power Solar Co., Ltd., Solar Energy Society Co., Ltd., Gunkul Solar Roof 4 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., Kora Wind Energy Co., Ltd.</p> <p><i>Bureau Veritas Certification has carried out the verification of the quantity of Greenhouse Gas emissions of the above organization as per ISO 14064-3:2019. The Greenhouse Gas emission quantification and reporting is found to be in accordance with the requirements of the standard detailed below.</i></p> <p><b>STANDARD</b> <b>ISO 14064 - 1: 2018</b></p> <p><b>SCOPE OF CERTIFICATION</b> DIRECT EMISSION: 783 tons CO<sub>2</sub> equivalent ENERGY INDIRECT EMISSION: 1,383 tons CO<sub>2</sub> equivalent INDIRECT EMISSION: 350 tons CO<sub>2</sub> equivalent EMISSIONS DUE TO BIOMASS COMBUSTION: Nil</p> <p>REPORTING YEAR: 1<sup>st</sup> JANUARY 2022 TO 31<sup>st</sup> DECEMBER 2022<sup>1</sup> LEVEL OF ASSURANCE: LIMITED</p> <p><small>To check this certificate validity please call: +662 670 4000. Further clarifications regarding the scope of this verification certificate and the applicability of the ISO 14064-1:2018 requirements may be obtained by contacting the organization.</small></p> <p>Certificate Number: THAILAND-GHG-2023-20      Date: 14 March 2023</p> <p> Mr. Pravechong Tongyai Na Ayuthaya Certification Manager</p> <p><small>Certification Manager (Signature): Bureau Veritas Certification (Thailand) AP Floor, Bangkok Tower, 177<sup>th</sup> Year Silom Road, Bangkok, Thailand 10110, Thailand. * If signature is combined based on Thai version of Greenhouse Gas report</small></p>	 <p><b>Greenhouse Gases Verification Statement</b> <i>Assured to</i> <b>Gunkul Power Development Company Limited</b> 117, 12<sup>th</sup> Fl., Pearl Bangkok Building, Phaholyothin Rd., Phayathai, Phaya Thai, Bangkok 10400, Thailand</p> <p><b>For Organisation Boundaries Covering</b> Headquarters office: Gunkul Power Development Company Limited Future Electrical Control Company Limited Future Power Construction Company Limited GPD &amp; TEECI, Joint Venture Company Limited Construction site Project sites under operation of all 4 companies totaling 27 sites</p> <p><i>Bureau Veritas Certification has carried out the verification of the quantity of Greenhouse Gas emissions of the above organization as per ISO 14064-3:2019. The Greenhouse Gas emission quantification and reporting is found to be in accordance with the requirements of the standard detailed below.</i></p> <p><b>STANDARD</b> <b>ISO 14064 - 1: 2018</b></p> <p><b>SCOPE OF CERTIFICATION</b> DIRECT EMISSION: 329 tons CO<sub>2</sub> equivalent ENERGY INDIRECT EMISSION: 56 tons CO<sub>2</sub> equivalent INDIRECT EMISSION: 2,564 tons CO<sub>2</sub> equivalent EMISSIONS DUE TO BIOMASS COMBUSTION: Nil</p> <p>REPORTING YEAR: 1<sup>st</sup> JANUARY 2022 TO 31<sup>st</sup> DECEMBER 2022<sup>1</sup> LEVEL OF ASSURANCE: LIMITED</p> <p><small>To check this certificate validity please call: +662 670 4000. Further clarifications regarding the scope of this verification certificate and the applicability of the ISO 14064-1:2018 requirements may be obtained by contacting the organization.</small></p> <p>Certificate Number: THAILAND-GHG-2023-21      Date: 15 March 2023</p> <p> Mr. Pravechong Tongyai Na Ayuthaya Certification Manager</p> <p><small>Certification Manager (Signature): Bureau Veritas Certification (Thailand) AP Floor, Bangkok Tower, 177<sup>th</sup> Year Silom Road, Bangkok, Thailand 10110, Thailand. * If signature is combined based on Thai version of Greenhouse Gas report</small></p>



# GUNKUL

*not only the energy, we care*

## GUNKUL ENGINEERING PUBLIC COMPANY LIMITED

1177, 8<sup>th</sup> Floor, Pearl Bangkok Building, Phahonyothin Road,  
Phayathai, Phayathai, Bangkok 10400

Tel. 0-2242-5800

Fax. 0-2242-5878-9

[www.gunkul.com](http://www.gunkul.com)