

GUNKUL
not only the energy, we care

SUSTAINABLE ENERGY FOR ALL



Sustainability Report 2023
GUNKUL Engineering Public Company Limited

Not only the Energy, We Care

We are not only cared about clean energy innovation
but we also care about the existence of the world and the quality of life.



For Business Growth
We care Business

None

Case of complaints on violations of business ethics

Assessment of Corporate Governance Report of Listed Companies (CGR) received a rating of

Excellent

None

Case of complaints on fraud and corruption

100%

of key suppliers have been assessed for sustainability covering economic, social, and environmental issues (ESG)



For a Livable Society
We care People

None

Case of complaints on labor and human rights issue

Male employee
713 persons

(60.94%)

Female employee
457 persons

(39.06%)

Employment of
7 disabled persons

Employment of
12 elderly persons

Employee satisfaction
and engagement in
the organization is

77.00%

decreased by 9.83%

Average training hour is
8.09 Hour / Person /
Year

29 employees who have
been promoted

The rate of accidents resulting in more than 3 days off
work among employees and contractors is 0.72
(Person / 1,000,000 working hours)

Customer satisfaction with products and services is
89.16% decreased by 0.26%

Overall community satisfaction and engagement is
83.66% increased by 8.72%



For a Sustainable
Environment
We care Social

Amount of Renewable Energy Certificate is
571,208.35 RECs

Amount of Carbon Credit is
954,240.48 tCO₂e

Amount of greenhouse gas emissions from
the organization's activities is 13,634 tCO₂e

(Note: Expanded the scope of the assessment to cover the headquarters, energy business, engineering and turnkey business and high-voltage equipment business group in 2023)

Total electricity consumption of the organization is
3,837,076.52 kWh

Amount of electricity consumption from outside
decreased by 9.22%

Total water consumption within the organization is
44,279.07 m³

Amount of water consumption from outside decreased
by 27.47%

Amount of waste from production process is 51.79 tons

Amount of waste managed according to 3Rs principles is
39.76 tons (76.77%)



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Message from the Chief Executive Officer

Gunkul Engineering Public Company Limited operates renewable energy business, equipment and integrated electrical systems with modern technology and innovation to develop the infrastructure to be strong and sustainable.

Amidst the challenging situation that businesses around the world are facing, whether it be economic fluctuations, political and geopolitical factors, energy crisis including the effects of climate change, which these factors result in the public sector facing challenging problems in their lives and having to adjust their lifestyles according to the economic and social context leading to widespread problems of social inequality.

With a commitment to develop the business to grow sustainably with social responsibility under the commitment **“not only the energy, we care”** that we are not only cared about clean energy innovation but we also care about the existence of the world and the quality of life, the Company therefore moves forward in investing and developing clean energy businesses to lay the foundation for energy security both within the country and abroad. The Company aims to be one of the leaders in producing electricity from renewable energy with a cumulative production capacity increasing to 2,000 megawatts within 5 years, along with developing technology and innovative digital products in the energy field to respond to the basic needs of people in society and reduce inequality in access to clean energy, allowing everyone to choose their own energy sources and have access to stable energy at a reasonable price. Along with driving a low-carbon society and supporting the country’s achievement of net-zero greenhouse gas emissions by 2065.

In 2023, the Company has expanded its clean energy technology portfolio and created stability for the electrical network system along with building bonds and creating shared value with all groups of stakeholders with responsibility **for a growing business, for a livable society, and for a sustainable environment.** As a result, the Company received a sustainability assessment from the Stock Exchange of Thailand or SET ESG Rating with a rating of AA and has been selected to be on the list of sustainable stocks (Thailand Sustainability Investment) for the third consecutive year. In addition, with the determination to push everyone in society to have equal access to clean and stable energy with the belief that energy is a basic right that every human being should receive (Energy is a Human Right), as a result, the Company received the Role Model Organization Award on human rights for large business sector for the second consecutive year, and in 2023 has been elevated to an outstanding award. This reflects the commitment to responsible development and business operations, as well as creating a society that is livable for sustainable growth together.

Finally, on behalf of the Board of Directors, management team, and employees of Gunkul Engineering Public Company Limited, thank you to shareholders, customers, business partners, financial institutions, government agencies, community enterprises, and all stakeholders who have an important role in supporting and creating success in the Company’s sustainability operations. The Company will adhere to conducting business responsibly and strive to drive business to grow and achieve sustainable development goals.

(Dr. Somboon Aueatchasai)
Chief Executive Officer

with social responsibility under
the commitment
**“not only the energy,
we care”**



Overview



Mission



Renewable Energy: Aim to build renewable energy power plants that meet high standards and efficiency by considering society, community and environment as important.



Sales: Procure and deliver quality products both power systems and energy saving products, and distribution channels, including providing services that fulfill customers needs.



Technology: Develop IT system, adopt cutting-edge technology and innovation to increase management, production, and services efficiency, as well as, create a variety of products and services to meet business partners' needs.



Returns: Create the highest return for shareholders and stakeholders across all sector in a balanced and fair manner.



People Management: Develop the potential and increase the knowledge and abilities of personnel to be at the international level consistent with the organization's core competencies. And taking care of personnel thoroughly and equally under the principles of human rights.



Management Framework: Structure the business and manage it according to the principles of good corporate governance and sustainable development, with responsibility for the economy, society, and environment.

Corporate Culture

We GROWTH Together

G

Goal

Determination to achieve goals

R

Reliability

Be reliable and professional at work

O

Ownership

Caring and Unity

W

Wisdom Learning

Learning constantly causing intelligence and adaptation

T

Technology and Innovation

Exposure to technology and extending innovation

H

Honesty and Governance

Honest, transparent, and dedicated to responsibilities



GUNKUL Business

Business Overview

Gunkul Engineering Public Company Limited (the “Company”) or GUNKUL operates main businesses in 3 areas: Energy Business, Engineering and Turnkey Business, and High-Voltage Equipment Business. This covers business operations related to the integrated electrical system with modern technology and innovation to strengthen the infrastructure in a sustainable way.

Throughout the past period, the Company is committed to developing the energy business based on the concept of sustainable business operations by considering the environment, society, and stakeholders under the good corporate governance principles to be in line with the Power Development Plan and the Alternative Energy Development Plan including the global trend moving towards a Net Zero society. The Company therefore aims to develop quality, standards, and safety to be one of the leaders in renewable energy, innovations and digital energy platform.

To increase the ability to conduct business focusing on seeking business opportunities to increase operational potential and increase business value for stable and sustainable returns, the Company has therefore continuously expanded its business to cover

the needs of consumers. In the area of renewable energy business, it started with solar power plants and expanded to wind power plants, and expanded investment abroad such as Japan, Malaysia, and Vietnam. Including expanding from medium-voltage to high-voltage power plants, and expanding customer base to more of the private sector (Private PPA). In addition, digital disruption is considered an important part in pushing the Company to develop innovations and a comprehensive digital energy platform to make a difference in the development of the country’s infrastructure and energy sustainability by focusing on and studying about E-Commerce Platform business in the field of electrical equipment, Energy Trading Platform, EV Charging Station, Energy as a Service, and Virtual Power Plat (VPP) under the concept **“Energy is Human Rights.”**

In 2022 and 2023, the Company has partnered with business partners in the renewable energy field. This business cooperation will increase the potential in the renewable energy business of the joint venture company, which is in line with the National Energy Plan framework that focuses on increasing the proportion of electricity generation capacity from renewable energy to achieve the goal of carbon neutrality by 2050.

At present, the Company has a total electricity generation capacity of more than 1,000 megawatts in 4 countries and aims to have electricity generation capacity of 2,000 megawatts by 2026.



At present, the Company has a total electricity generation capacity of more than **1,000 megawatts** in 4 countries and aims to have electricity generation capacity of 2,000 megawatts by 2026.



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

Focus on building a strong operational foundation along with developing a **“New S-Curve”** business to create a stable and continuous growth, and achieve long-term goals.

1. Add value to the business by expanding investment into business groups that create high value.
2. Use technology and create innovations in all dimensions to expand the business, increase competitiveness and reach more diverse customer groups including driving organizations and society towards the New Ecosystem of the energy system.
3. Expand investment in product development so as to have a complete range of important products that meet the needs of a wider customer group.
4. Joint investment with business partners, conduct Mergers and Acquisitions (M&A), both domestically and overseas, to enable the Company to create growth in line with the direction of the industry and world trends in a timely manner.
5. Support the growth of each business group and promote business separation (spin off) for management efficiency and increase opportunities for sustainable growth in a long-term.



Dividend Payment Policy

The Company has a policy to pay dividend at a rate of no less than 40 percent of net profit in the Company’s separated financial statements, after deduction of corporate income tax, legal reserve, and other reserves (if any). However, the Company may specify that the dividend payment rate be less than the rate specified above, depending on the necessity for working capital, investment plan, business expansion in the future, and other factors related to the management of the Company.



Sustainability Awards and Achievements

5 Awards

in 2023



Assessed by the Stock Exchange of Thailand (SET) ESG Ratings received "AA" rating and selected to be one of the Thailand Sustainability Investment Stock for the third consecutive year from the SET.



The Company has received an "Excellent" or 5 stars rating (Excellent CG Scoring) for the seventh consecutive year assessed by the Thai Institute of Directors Association (Thai IOD).



Sustainability Disclosure Recognition for the year 2023
Received Sustainability Disclosure from the Thaipat Institute.



The 2023 Role Model Organization Award in Human Rights
Awarded an "excellent" 2023 Role Model Organization Award in Human Rights for large business sector from the Department of Rights and Liberties Protection, Ministry of Justice.



Received a 3Rs Award under the Zero Waste to Landfill project
G.K. Assembly Company Limited an affiliated company of GUNKUL received a 3Rs Award and 3Rs+ Award in terms of economic returns and waste reduction from the Department of Industrial Works.



Part 1

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[→ Read more about Sustainable Development Goals and Strategies](#)



Sustainability Management

Sustainable Development Policy

The Company's sustainable business operations are based on good corporate governance, adherence to conducting business with social and environmental responsibility, and being a leader in renewable energy business, equipment and integrated electrical systems with modern technology and innovation, and develop infrastructure to be strong and sustainable under the commitment **"Not only the energy, We care"** to build confidence among stakeholders along with creating stability in renewable energy for the country in the future in a comprehensive manner. Therefore, the Company has established a sustainable development policy to serve as operational framework and review it annually to be clear and consistent with international sustainability guidelines, as well as communicating sustainable development policy to employees in every department throughout the organization to drive it into concrete practice and grow together sustainably with all groups of stakeholders.



[Read more about Sustainable Development Policy](#)



We care Business

Develop a fully integrated business to meet the needs of stakeholders in a worthwhile manner along with conducting business under good corporate governance principles with responsibility. The Company will never stop developing technology and creating innovations to improve work, delivering the best products and services to consumers by considering **"quality, standards, safety, and environmental friendliness"**, building confidence among stakeholders, and creating stability in renewable energy for the country in the future in a comprehensive manner.



We care People

Develop personnel to be good at work, good at oneself, good at people, and good at managing teams to lead the organization to excellence as the Company believes that personnel are an important resource of the organization and is an important mechanism for driving business to sustainable success. Accordingly, the Company focuses on personnel development through organizing a work system that emphasizes participation, creating a **"teamwork culture"** with unity, as well as promoting skills and learning throughout the working period to encourage personnel to have skills and abilities to perform tasks in a comprehensive manner. Including promoting a working culture within the organization by adhering to good governance principles, equality according to human rights principles, and safety and occupational health in work in leading the organization to excellence.



We care Social

Create opportunities for society and be environmentally friendly in a sustainable way, committed to supporting the energy transition towards achieving net zero greenhouse gas emissions by managing natural resources for maximum benefit, developing technology and innovation to create society and the environment, promoting coexistence with the community and helping each other as **"good neighbors."** Including placing importance on exchanging knowledge and experiences between individuals, organizations, communities, and stakeholders, and supporting access to electricity and renewable energy as the Company believes that electricity and energy are the basic necessities that everyone should have equal access to.



Sustainable Development Goals and Strategies

The Company’s sustainable development goals and strategies are driven under the commitment **“Not only the energy, We care”** to conduct business with attention to the development of clean energy innovations along with paying attention to the existence of the world and the good quality of life of all stakeholders in a balanced manner. The Company’s strategic framework consists of 3 pillars: We care Business, We care People and We care Social, which cover issues in the economic, social and environmental dimensions under good corporate governance and focusing on sustainable business development as follows:

Not only the Energy, We Care

We care Business

Develop a fully integrated business that responds to stakeholders in a worthwhile manner.



- Follow good corporate governance practices and business ethics.
- Manage risks to reduce the impact and expand the business, and committed to seeking opportunities to add business value for stable and sustainable returns for all groups of stakeholders.
- Committed to developing products and services to meet the needs of customers and develop the quality of life of people in society sustainably with modern technology and innovation.
- Develop, improve, and procure complete electrical system products.
- Build on capital strength by expanding the energy business both domestically and abroad even more.
- Procure and develop modern energy technology and innovation, response to the use of renewable energy thoroughly and efficiently
- Expand business lines and increasing investment in future energy businesses.
- Expand construction business, both electrical systems and related equipment, including above-ground and underground transmission lines, and accepting more underwater cables work to generate income for sustainable growth.

We care People

Develop personnel to be good at work, good at oneself, good at people, and good at managing teams.



- Create a strong “GROWTH” culture to support strategies for achieving organizational goals.
- Strengthen the skills of supervisors to have main role in pushing and reinforcing appropriate behavior for subordinates, “good at work, good at oneself, good at people, and good at managing teams.”
- Develop the collective behavior of personnel to adjust to a new organizational culture of teamwork and lead the organization to excellence.
- Improve the human resource management system to facilitate the creation of good behavior for personnel.
- Encourage personnel to advance in vocational line
- Change the way of working in unusual conditions or situations to ensure that the organization’s personnel can perform their duties safely and with full efficiency.
- Create an environment, occupational health and safety at work.
- Treat workers with equality, fairness and respect for human rights.

We care Social

Create opportunities for society and environment that are friendly to the community in a sustainable way.



- Support the energy transition towards achieving net zero greenhouse gas emissions with technology and clean energy innovation
- Create a balance between business growth along with the creation of alternative energy innovations that are environmentally friendly.
- Support access to electricity and renewable energy, which are one of the basic rights that everyone should have equal access to.
- Develop renewable energy power plants to be a source of learning for the community and society.
- Create employee participation with community networks in supporting community activities to create a strong society and live together in balance.
- Promote career creation in communities surrounding the Company’s renewable energy power plants.
- Manage environment sustainably, use resources in production efficiently according to the circular economy guidelines, and strive to reduce the amount of landfill waste to zero.



Supporting Sustainable Development Goals (SDGs)



The Company is aware of its responsibility to drive business according to the Sustainable Development Goals (SDGs) of the United Nation. The Company is committed to operating business towards achieving sustainable development, which has 3 important components: economic growth, social inclusion, and environmental protection. Therefore, the Company has established sustainable development goals that are consistent with business strategies, respond to organizational goals and expectations of stakeholders. At present, the Company supports a total of 11 sustainable development goals and the details can be summarized as follows:



Goal 3 : Health and well-being

Ensure healthy lives and promote well-being for all

Health and safety of personnel in a suitable work environment and well-being of personnel is something that the Company gives importance to. Therefore, the Company has established management guidelines to promote work safety and well-being of employees including all groups of people involved whether it be contractors, business partners, and nearby communities to be safe, able to work efficiently and have zero work accidents. (3.6) In addition, the Company also focuses on developing products and services to care for the health of modern people by using natural products that meet quality standards and are safe. (3.8)



Goal 4 : Promote learning opportunities

Ensure equitable and inclusive education and promote lifelong learning opportunities for all

The Company realizes the importance of education, therefore, supports employees and their families to have equal access to education through annual scholarship support (4.1, 4.2) (4.3) and creates educational networks to cover various educational institutions to jointly develop vocational skills for students by providing opportunities for internships to encourage real work experience in order for them to develop, improve and apply to work in the future in a sustainable way. This increases the number of youth and adults with necessary skills, including technical and vocational skills available for employment and good job. (4.4)



Goal 5 : Gender equality

Promote gender equality and Create equality between genders

The Company works to achieve equality between genders, create equality in gender roles, and employ without discrimination (5.1) by requiring that every business activity must be free from actions that cause unfair discrimination and promoting respect for human dignity. Including providing employees the right to develop their own potential and have equal access to various knowledge. (5.5)



Goal 6 : Sustainable water management

Ensure sustainable water management and availability for all

The Company is always aware that water is an important natural resource, therefore, gives importance to the management of internal water resources by providing a complete water management process in the production process, supporting improvement of water quality, reducing pollution, increasing safe and sustainable recycling and reuse (6.3) so that organization can use water resources efficiently and for maximum benefit along with the conservation and restoration of water sustainably. (6.4)



Goal 7 : Access to clean and sustainable energy

Ensure access to modern, sustainable, reliable, and affordable energy for all

The Company operates businesses related to clean energy, therefore, is committed to investing in business development according to the Company’s vision to drive clean energy to be accessible to everyone efficiently and universally (7.1) and also regularly procuring new technologies to be applied in the production process (7.3) in order to increase the proportion of renewable energy use. (7.2)



Goal 8 : Decent work and growing economy

Promote continuous, inclusive and sustainable economic growth, and promote decent employment

The Company also places importance on economic growth in line with stakeholder expectations, therefore, is committed to being an employer that respects human rights and responsible to stakeholders. Whether it is supporting the employment of employees or people with disabilities in the area surrounding the business in order to create careers for the community, selecting contractors that comply with the law, not using child labor and promoting a safe working environment equally. (8.5, 8.7, 8.8)



Goal 9 : Industry, Innovation, and Infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

The Company operates businesses related to clean energy and technology including various energy innovations, therefore, aims to invest and support the development and improvement of environmentally friendly technology to enhance sustainability in various types of industry and supports the development of infrastructure that relies on clean energy. As well as, supporting educational institutions to develop sustainable innovations. (9.4, 9.5)



Goal 12 : Responsible production and consumption

Ensure sustainable consumption and production patterns

The Company conducts business related to clean energy, both solar energy and wind energy. Therefore, it is operating under sustainable consumption and using available resources for maximum efficiency. (12.2)



Goal13 : Solve global warming problems

Take urgent action to combat climate change

The Company recognizes the importance of global warming that causes rapid climate change. Therefore, it is committed to preparing a report on the organization’s greenhouse gas emissions (Greenhouse Gas Inventory Report), which compiles the organization’s direct and indirect greenhouse gas emissions. The results will be applied and planned to manage the reduction of the organization’s greenhouse gas emissions in accordance with Thailand’s announcement of goals at the COP26. (13.2, 13.3)



Goal 15 : Terrestrial Ecosystems

Protect, restore and promote sustainable use of terrestrial ecosystems, and sustainably manage forests

The Company promotes sustainable forest management practices by not deforesting, promoting the restoration of degraded forests, increasing reforestation and forest restoration. (15.2)



Goal 16 : Peace, Justice, and Security

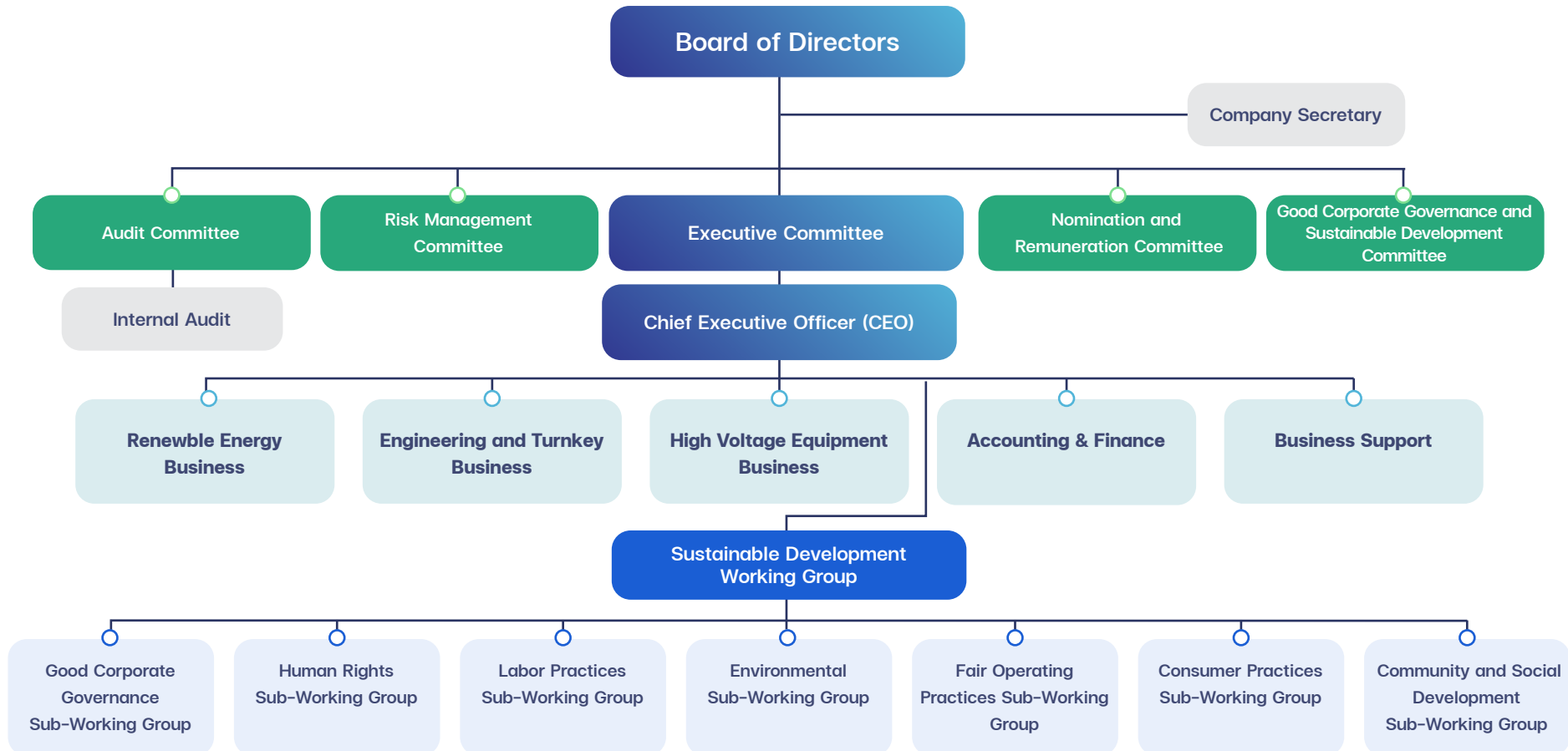
Promote peaceful and inclusive societies for sustainable development

The Company recognizes the importance of promoting a peaceful society and sustainable development. The Company’s operation will be based on transparency, accountability and participation as a member of the Private Sector Collective Action against Corruption (CAC). Moreover, the Company also encourage partners to join the network to conduct business together in a transparent manner. (16.5, 16.6, 16.7).



Sustainability Operational Structure

The Company structures its sustainability operational structure by having the Board of Directors responsible for considering and approving policies and direction for sustainability operations, and the Good Corporate Governance and Sustainable Development Committee responsible for establishing policies and guidelines for sustainable development covering environment, social and governance (ESG) that are consistent with international sustainability standards and practices including supervising, providing opinions and suggestions regarding relevant sustainability management frameworks and reviewing, monitoring, inspecting guidelines, plans, and sustainability performance results. The Good Corporate Governance and Sustainable Development Committee will hold meetings every quarter to push and drive operations to achieve the Company’s sustainable development goals and continuously report to the Board of Directors. In addition, the Company has formulated a working group to develop the organization towards sustainability in order for the work process and goals of sustainable business operations to occur efficiently. The working group will collect information, analyze and review risks, opportunities, impacts and challenges, as well as the needs and expectations of all stakeholder to be used as a guideline in determining the strategy and direction of the organization’s sustainability operations covering economic, social and environmental dimensions.





Part 2

Management of Impacts on Stakeholders in the Business Value Chain

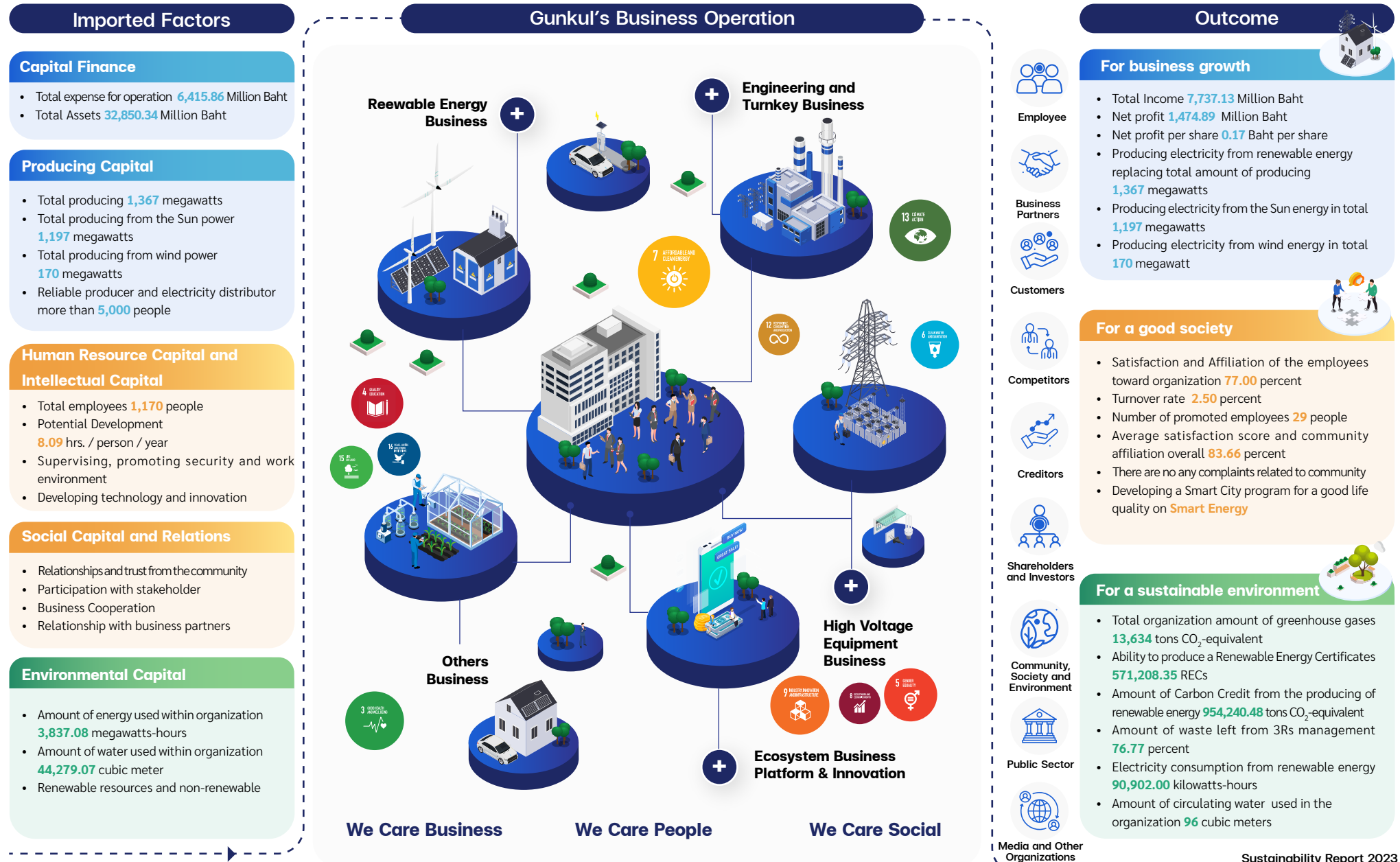
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Business Value Chain

Creating a business value together towards sustainability



Imported Factors

Capital Finance

- Total expense for operation **6,415.86** Million Baht
- Total Assets **32,850.34** Million Baht

Producing Capital

- Total producing **1,367** megawatts
- Total producing from the Sun power **1,197** megawatts
- Total producing from wind power **170** megawatts
- Reliable producer and electricity distributor more than **5,000** people

Human Resource Capital and Intellectual Capital

- Total employees **1,170** people
- Potential Development **8.09** hrs. / person / year
- Supervising, promoting security and work environment
- Developing technology and innovation

Social Capital and Relations

- Relationships and trust from the community
- Participation with stakeholder
- Business Cooperation
- Relationship with business partners

Environmental Capital

- Amount of energy used within organization **3,837.08** megawatts-hours
- Amount of water used within organization **44,279.07** cubic meter
- Renewable resources and non-renewable

Outcome

For business growth

- Total Income **7,737.13** Million Baht
- Net profit **1,474.89** Million Baht
- Net profit per share **0.17** Baht per share
- Producing electricity from renewable energy replacing total amount of producing **1,367** megawatts
- Producing electricity from the Sun energy in total **1,197** megawatts
- Producing electricity from wind energy in total **170** megawatt

For a good society

- Satisfaction and Affiliation of the employees toward organization **77.00** percent
- Turnover rate **2.50** percent
- Number of promoted employees **29** people
- Average satisfaction score and community affiliation overall **83.66** percent
- There are no any complaints related to community
- Developing a Smart City program for a good life quality on **Smart Energy**

For a sustainable environment

- Total organization amount of greenhouse gases **13,634** tons CO₂-equivalent
- Ability to produce a Renewable Energy Certificates **571,208.35** RECs
- Amount of Carbon Credit from the producing of renewable energy **954,240.48** tons CO₂-equivalent
- Amount of waste left from 3Rs management **76.77** percent
- Electricity consumption from renewable energy **90,902.00** kilowatts-hours
- Amount of circulating water used in the organization **96** cubic meters



Analysis of Stakeholders within the Business Value Chain

The Company is acknowledged that the stakeholders in the business value chain are important in terms of creating a long-term value for business. The Company had analyzed the business value chain from the business activity in every groups to indicate key stakeholders which lead to the expectation analysis and specified the guideline to satisfy the stakeholders' expectation of the Company by ensuring efficient business operation and reducing potential risks and building a good relationship 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. The analysis process to identify relevant stakeholders as follows:



Understand Value Chain

Analyzed and indicated relating activity from upstream to downstream (raw material, producing, delivery of the products and customer service) both main and additional activities to be able to identify and connect related person throughout the Value Chain.



Stakeholder Identification

Indicated the related stakeholders who can create an effect and/or receiving impact from the business operations or company's related activity by considering the boundary of stakeholders according to the nature of their participation to the Company from related factors such as reliance, responsibility, help, influence, both direct and indirect.



Stakeholder Prioritization

Analyzed and prioritized stakeholders by considering stakeholders' influence on the business financial, operation, regulation, reputation, and strategy along with the impact of business operation on stakeholders both in terms of economic, social, environment, and indicate a level of an impact on the Stakeholder Metrix and categorized stakeholders into 4 groups according from the level of stakeholders' influence to the business and the level of business impact to the stakeholders.




Stakeholder Engagement


Engaged with key stakeholders to meet each group of stakeholders' expectations and respond to the demands and expectations of stakeholders through projects, standards, activities, and other communication channels appropriately.




For the year 2023, the Company has built an engagement and respond to the stakeholders' expectations as follows:

Stakeholders	Expectations	Goals, indicators, and communication channels	Responding to Stakeholders Expectations
 <p>Employee</p>	<ol style="list-style-type: none"> Reasonable welfare and remuneration compared with others companies in the same industry. Promoting career advancement and working stability. Necessary, appropriate and sufficient equipment to facilitate the work. Appropriate and fair employee knowledge and skill development. Take care of employees' health, appropriate and safe working environment. Opened for comments, opinions and suggestion Taking care of, maintaining and treating employees at all levels equally. 	<p>Goals:</p> <ol style="list-style-type: none"> Percentage of satisfaction from the corporate engagement survey is not less than 80 percent. Employee turnover is lower or same as the previous year. Average employees training hours are not less than 9 hours per person per year. Employee make progress and enjoy stability in their job. Zero accident rate at work. <p>Indicators:</p> <ol style="list-style-type: none"> Satisfaction from corporate engagement. Employee turnover rate Average employees training hours Number of executives and employees who have been promoted. Loss-time Injury Frequency Rate (LTIFR). <p>Communication Channel:</p> <ul style="list-style-type: none"> Employees survey of the needs to provide appropriate courses according to business growth. Corporate satisfaction and engagement survey. Employees Orientation Team building activities to encourage employee engagement. Activities of Executive meeting employees Publicize news and activities through social networks, E-mail and Website. Form 56-1 One Report and Sustainability Report. 	<p>Responding Framework:</p> <ol style="list-style-type: none"> Establish welfare committee. Annual remuneration survey for appropriate benefit and welfare. Arrange necessary, appropriate and sufficient equipment to facilitate the work and safe working environment. Specify the standard guideline for working assessment with concrete, equitably and transparency. Specify advance career path. Provide / manipulate training course for develop and improve competency in accordance with the employee field and level. Promote and build corporate engagement with employees through various activities and projects. Annual employee corporate satisfaction and engagement survey. Improve and develop opinion and reporting channel. Establish Health, Safety and Working Environment Committee. Promote working culture with respect of human rights. <p>Performance Results:</p> <ol style="list-style-type: none"> Percentage of employee satisfaction and commitment to the Company 77.00 percent. Employee turnover rate 2.50 increased from 2022 by 0.96 percent. Average employee training hours was 8.09 hours per person per year. Numbers of promoted employees was 29 people. Loss-time injury Frequency Rate (LTIFR) from work for more than 3 days was 0.72 percent.





Stakeholders	Expectations	Goals, indicators, and communication channels	Responding to Stakeholders Expectations
 <p>Business Partners</p>	<ol style="list-style-type: none"> 1. Fair, transparent and accountable procurement and bidding. 2. Corporate competency development for sustainable growth on corporate competency development. 3. Manage accordance with the contract and agreement. 4. Product quality, delivery and full payment on time in accordance with the agreement. 5. Continuity in conducting business together 6. Exchange knowledge for development of innovation and new way of working procedure. 7. Respecting each other's rights and non-infringement of Intellectual Property. 8. Social and environmental responsible procurement. 	<p>Goals:</p> <ol style="list-style-type: none"> 1. Percentage of business partner competency assessment is at very good level. 2. 100 percent of key supplier acknowledge in written the Supplier Code of Conduct guideline. 3. 100 percent of critical suppliers that have been assessed for sustainability covering economic, social, and environmental issues (ESG) <p>Indicators:</p> <ol style="list-style-type: none"> 1. Supplier performance and competency assessment is at very good level. 2. Number of Critical suppliers who agree in written with the Supplier Code of Conduct 3. Number of critical suppliers who have been assessed for sustainability covering economic, social, and environmental issues (ESG) <p>Communication Channel:</p> <ul style="list-style-type: none"> • Supplier Assessment Form. • Supplier Risk Assessment • Supplier Efficiency Assessment • Business Meetings or Seminars • Channels for receiving feedback, including complaints, suggestions and opinions. • Form 56-1 One Report and Sustainability Report. 	<p>Responding Framework:</p> <ol style="list-style-type: none"> 1. Conducting Supplier Code of Conduct and officially promulgated within the organization, and communicate to business partners. 2. Arrange meeting, create a clear understanding and activities with suppliers. 3. Knowledge sharing by specialists to develop sustainable growth with supplier. 4. Delivery products under specified time, full payment on time with correct and complete that adhere with the contract terms. 5. Visit business suppliers and listen to opinions and suggestion. 6. Treat business suppliers with equality and fairness. 7. Promote Green Procurement with environmental friendly. 8. Effective supply chain management to prevent and mitigate risk that impact social and environment. 9. Conducting an assessment of key trading partners and assessing supplier risk annually to prepare a relationship development plan with partners. <p>Performance Results:</p> <ol style="list-style-type: none"> 1. Scores and results of performance evaluations or evaluations or performance evaluations of suppliers are at a very good level. 2. 100 percentage of the key suppliers who enter into contracts that receive communication about the Supplier Code of Conduct. 3. 100 percentage of critical suppliers that have been assessed for sustainability covering economic, social, and environmental issues (ESG)




Stakeholders	Expectations	Goals, indicators, and communication channels	Responding to Stakeholders Expectations
 <p>Customers</p>	<ol style="list-style-type: none"> 1. Products and services with quality and safety standards. 2. Delivery of products and services under specified conditions and times. 3. Products and service with reasonable price. 4. Readiness and speediness in responding to customer needs. 5. Providing pre-sales an post-sales such as methods or prodecures for using the product, proper consultation, assistance and customers visit. 6. Ability so solve problems correctly, appropriately, and in a timely manner. 7. Maintain and protecting customers confidential information. 8. Efficiency operation meet international standards and not effect to the society, social and environment. 	<p>Goals:</p> <ol style="list-style-type: none"> 1. Percentage of customers satisfaction with products and services are higher than previous year. <p>Indicators:</p> <ol style="list-style-type: none"> 1. Customers satisfaction survey on goods and services. <p>Communication Channels</p> <ul style="list-style-type: none"> • Channels for receiving feedback including complaints, suggestions, and opinions on the use of goods and services. • Customers evaluation survey • Visits, meetings, training / seminars. • Socially communication • Form 56-1 One Report and Sustainability Report. 	<p>Responding Framework:</p> <ol style="list-style-type: none"> 1. Provide high-quality, safety, and observable products and services. 2. Inspect and control the production of goods and services to meet international standards. 3. Set up a quality assurance system throughout the supply chain from the raw material to the customers' hand. 4. Employee professional training, serving efficiency services to meet with customer's need. 5. Set the price of goods and services at a price that is appropriate with the quality and provide information to customers with transparency. 6. Continuously research and develop products with suitable and modern technology and innovation with safety. 7. Strictly abide by the agreements given to the customers. 8. Increasing appropriate and modern channels to the products and services 9. Development of the innovation of renewable energy or clean technology for establishing products and services to prevent and mitigate risk that impact social and environment. 10. Promote and support raw materials that environmental friendly. 11. Customers satisfaction survey resulted for sustainable development. 12. Conducting Personal Data Protection Act (PDPA) Policy. <p>Performance Result:</p> <ol style="list-style-type: none"> 1. Customer satisfaction with products and services 89.16 percent decreased from 2022 by 0.26 percent.




Stakeholders	Expectations	Goals, indicators, and communication channels	Responding to Stakeholders Expectations
 <p>Competitors</p>	<ol style="list-style-type: none"> 1. Conduct business with transparency, honesty, and ethical competition with fairness and comply by law. 2. Not infringing on copyright or intellectual property rights. 	<p>Goals:</p> <ol style="list-style-type: none"> 1. No complaints about copyright infringement issues. <p>Indicators:</p> <ol style="list-style-type: none"> 1. Number of complaints about copyright infringement issues. <p>Communication Channels:</p> <ul style="list-style-type: none"> • Business seminars • Meetings, exchanging opinions and cooperation various agendas. • Website • Form 56-1 One Report and Sustainability Report 	<p>Responding Framework:</p> <ol style="list-style-type: none"> 1. Treat competitors fairly, ethical consideration, not infringing on copyright or intellectual property right and comply with the law. <p>Performance Result:</p> <ol style="list-style-type: none"> 1. There are no number of complaints about copyright or intellectual property infringement issues.
 <p>Creditors</p>	<ol style="list-style-type: none"> 1. Fully and timely pay the debt as specified. 2. Compliance with conditions and contractual agreements. 3. Manage risk in a secure manner to ensure business continuity. 4. Manage correctness of the financial information and to publicize to the public. 	<p>Goals:</p> <ol style="list-style-type: none"> 1. Comply with conditions and contractual agreements correctly and completely. <p>Indicators:</p> <ol style="list-style-type: none"> 1. Comply with conditions and contractual agreements <p>Communication Channels:</p> <ul style="list-style-type: none"> • Meeting to mutually clarify terms and conditions. • Website • Form 56-1 One Report 	<p>Responding Framework:</p> <ol style="list-style-type: none"> 1. Fully pay the debt as specified. 2. Discuss or meeting to achieve mutual conclusion on the terms and conditions. 3. Exchange knowledge on risk management and communicate the correct and complete information continuously. 4. Publicize transparency and complete information continuously. <p>Performance Results:</p> <ol style="list-style-type: none"> 1. Compliance with the terms and conditions of the contract is 100 percent accurate and complete.





Stakeholders	Expectations	Goals, indicators, and communication channels	Responding to Stakeholders Expectations
 <p>Shareholders and Investors</p>	<ol style="list-style-type: none"> 1. Effective good corporate governance and risk management. 2. Business growth steadily and profitable. 3. Return on investment (dividend and share price differential) from good and sustainable operations. 4. The operation of the business is successful according to the objectives. 5. Respect the fairness and retain equal treatment. 6. Disclosure of the Company's information based on facts, correctness, completeness, transparency and timely decision making. 	<p>Goals:</p> <ol style="list-style-type: none"> 1. The satisfaction survey result for investor activities not less than 90.00 percent. <p>Indicators:</p> <ol style="list-style-type: none"> 1. The results of the satisfaction survey for investors activities. <p>Communication Channels:</p> <ul style="list-style-type: none"> • Shareholder meeting • Annual meeting or announcement of business plans and business intentions. • Website • Form 56-1 One Report and Sustainability Report 	<p>Responding Framework:</p> <ol style="list-style-type: none"> 1. Operate the business under the principles of good corporate governance and follow the annual business plan. 2. Creating sustainable and balance operating results with risk management concisely. 3. Creating trust and appropriate highest return on investment. 4. Disclosure of business operation and results with transparency and completeness continuously. <p>Performance Results:</p> <ol style="list-style-type: none"> 1. Survey results of investor relations accounted for 92.63 percent.



Stakeholders	Expectations	Goals, indicators, and communication channels	Responding to Stakeholders Expectations
 <p>Community, Society and Environment</p>	<ol style="list-style-type: none"> 1. Business operation that friendly to environment and society. Supervise operations not to impact the environment and communities. 2. Community participation in developing and creating value together. 3. Participating in community development in the economic, social and environmental aspects to develop the quality of life and well-being of communities surrounding factories and power plants. 4. Promote knowledge and understanding of the renewable energy and innovation help to manage the resource and environment in the community to the communities. 5. Giving priority to safety, impacts on communities and environment. 6. Promote and support activities that benefit to the communities. 7. Employ persons and building carriers from nearby community. 8. Produce a good communication and building a good relationship between the Company and community. 	<p>Goals:</p> <ol style="list-style-type: none"> 1. Percentage of community satisfaction for business operation. 2. No complaints from the community and society. 3. Greenhouse gas emissions are reduced compared to previous year. <p>Indicators:</p> <ol style="list-style-type: none"> 1. The results of the community satisfaction. 2. Number of complaints from community and society. 3. The amount of the carbon dioxide emissions. <p>Communications Channels:</p> <ul style="list-style-type: none"> • Survey of community satisfaction with the Company’s operations • Visit the Communities • Channels for receiving feedback including complaints, suggestions, and opinions. • Website • Form 56-1 One Report 	<p>Responding Framework:</p> <ol style="list-style-type: none"> 1. Establish Company’s sustainability development working group and sub-working groups. 2. Publicize the information and understanding of business processes, technology, and innovation, as well as other knowledge that is valuable to society through the website, activity organizing, and other channels. 3. Innovation and clean technology development to reduce the effect to the community and environment. 4. Assessing the community impact before and after conducting business operations with environment responsibility and biodiversity. 5. Onsite survey for opinions, suggestion and monitor on the effect to the community regularly. 6. Carry out social projects and activities. 7. Support and promote the activity with the community. 8. Manage resource from the upstream to reduce the amount of waste that effect to the society and environment. 9. Zero waste Applying the 8R guidelines for maximum benefit of using resource to reduce waste leading to Net Zero waste. 10. Arrange channel for receiving feedback, including complaints, suggestions and comments. 11. Promote an environmentally responsible operating culture, energy saving and reduce greenhouse gas emissions throughout the organization. <p>Performance Results:</p> <ol style="list-style-type: none"> 1. Community Satisfaction on the operation of the business accounted for 83.66 percent. 2. There are no any complaints from the society or community. 3. Amount of greenhouse gas emissions of the organization in the head office, Energy Business, and Engineering and Turnkey Business was 6,674 tCO₂, increased from 2022 by 22.57 percent. And the amount of greenhouse gas emissions of the organization including the head office and 3 business groups equal to 13,634 tCO₂e.

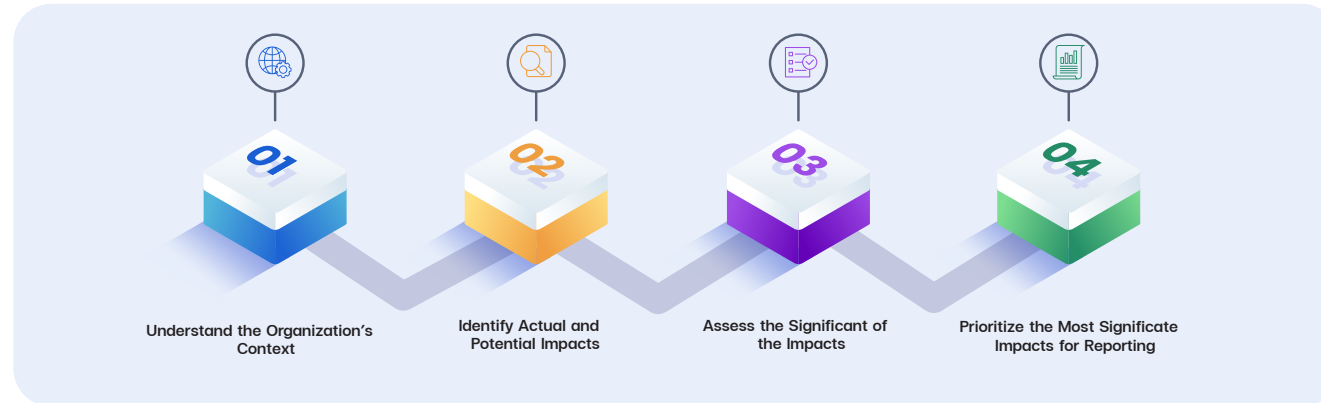


Stakeholders	Expectations	Goals, indicators, and communication channels	Responding to Stakeholders Expectations
 <p>Public Sector</p>	<ol style="list-style-type: none"> Operate in accordance with relevant laws and regulations. Promote the good corporate governance comply with the business ethics. Anti-Benefit and Corruption Claims. Payment of taxes and fees in full and in timely manner. Cooperation and support in various filed Manage claims efficiency. 	<p>Goals:</p> <ol style="list-style-type: none"> Comply with regulations of the public sector. Promote and participate public sector activities. <p>Indicators:</p> <ol style="list-style-type: none"> Activities incorporated with public sectors. <p>Communication Channels:</p> <ul style="list-style-type: none"> Visits, meetings, trainings / seminars. Verification and inspect following the standards. Arrange activities incorporated with public sectors. Form 56-1 One Report 	<p>Responding Framework:</p> <ol style="list-style-type: none"> Operate business under good corporate governance and in accordance with relevant laws and regulations. Disclose information with transparency and regularly. Join the anti-corruption network. Carry out tax matters according to relevant laws and regulations. Cooperate and support activities and operations at the national level. <p>Performance Results:</p> <ol style="list-style-type: none"> Participated in the Increase Efficiency in Industrial Waste Management leads to Zero Waste to Landfill of the year 2023 of the Department of Industrial Works, Ministry of Industry. Participated in the Human Rights Model Scheme of the year 2023 of the Rights and Liberties Protection Department, Ministry of Justice.
 <p>Media and Other Organizations</p>	<ol style="list-style-type: none"> Communicate corporate news with accuracy, timely, timely manner and neutrality and benefit to the society. Operate business with responsibility to economy, society and environment. Participate and have good relationship with media and other organizations. 	<p>Goals:</p> <ol style="list-style-type: none"> The news presented internally in an accurate, timely, and timely manner. <p>Indicators:</p> <ol style="list-style-type: none"> Amount of informations presented with the Company with completely and up to date. <p>Communication Channels:</p> <ul style="list-style-type: none"> Annual General Meeting of Shareholders or announcement of business plan and intentions and activities on listed companies meeting with investors (Opportunity Day). Channels for receiveing feedback including complaints, suggestions and comments. Website Form 56-1 One Report 	<p>Responding Framework:</p> <ol style="list-style-type: none"> Submit actual and netural operational information regularly after completion of operation. 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. 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. <p>Performance Results:</p> <ol style="list-style-type: none"> Providing complete and up-to-date Company's information at the level of 90.32 percent.



Materiality Assessment

The Company has reviewed the key issues of relevant sustainability issues that significant to the business both internal and external factors which considers throughout issues that are risks or negative impacts and issues that are opportunities or positive impacts.



1. Understand the Organization's Context

We care Business ด้านพนักงาน We care People และด้านสังคมและสิ่งแวดล้อม We care Social The Company has reviewed its organizational context throughout the business value chain from upstream to downstream activities, relationship and business connection, sustainability context from both internal and external factor. In addition, including needs, expectations, and anxiety of all groups of stakeholders that relating to the business operation along with international trends and directions of the same industry to identify a primary key issue which can be divided into 3 aspects: We care Business: Economic issues, We care Social: Social and environmental issues, and We care People: Employee issues.

2. Identify Actual and Potential Impacts

Identified the impact of key preliminary issues both the actual impacts and that the possibility of its happening in terms of economic, social, and environment both positive and negative impacts covered in every aspects of business activities and throughout the business value chain by creating a participation of stakeholders both internally and externally.

3. Assess the Significant of the Impacts

Evaluate the significant of the impact and prioritize a significant according to the Severity impacts measure and likelihood in the dimension of the impact significant to stakeholders and significant impact to the business.

4. Prioritize the Most Significant Impacts for Reporting

Prioritized according to the significant of the impacts by classifying the significant on Materiality Matrix table in which a vertical axis is issue that may have an impact and significant to the stakeholders and horizontal axis is issue that may have an impact and significant to the business success and presented for consideration and revision the correctness and completeness of the significant issues by the working group for organizational development towards sustainability. Then, deliver such issue 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.

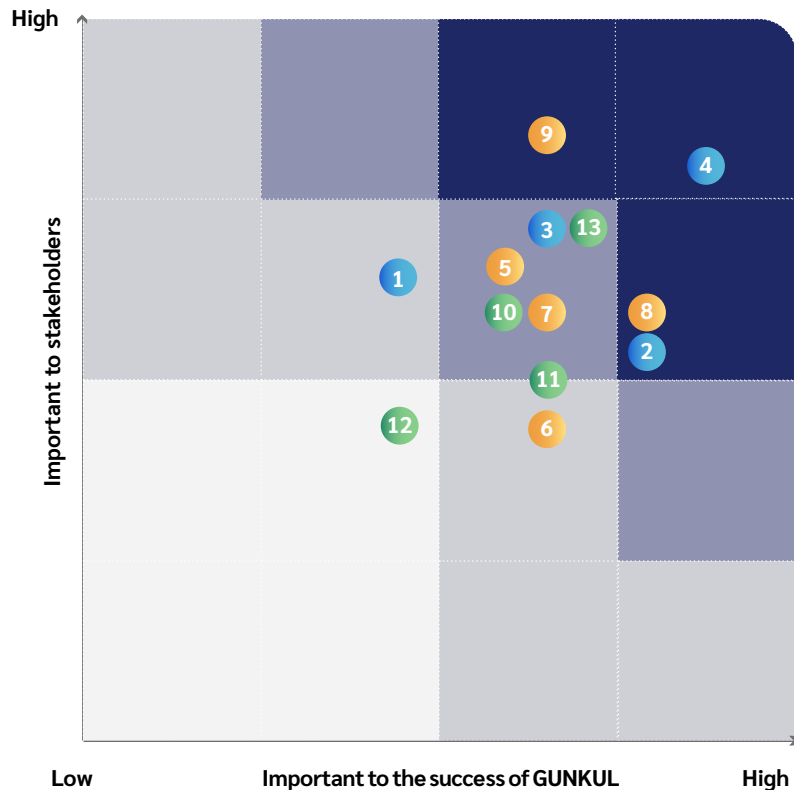




The Sustainability Materiality Assessment Results

The Company has been reviewed and evaluated a sustainable key issue in every year. In 2023, it was found that there were 13 significant sustainability issues divided into a highly significant 4 issues, high significant 5 issues, medium significant 3 issues, and low significant 1 issue as the following:

Materiality Matrix



- We care Business
- We care People
- We care Social

Sustainability Key Materiality Issue

Highly Significant

- 2. Risk management during crisis and abnormal state
- 4. Development of technology and innovation
- 8. Employee remuneration and retention plan
- 9. Product responsibility

High Significant

- 3. Sustainable supply chain management
- 5. Occupational health and safety in work place
- 7. Employees developments
- 10. Waste management form the operation
- 13. Climate change management

Medium Significant

- 1. Good Corporate Governance and ethics in business operation
- 6. Labor management and human rights
- 11. Community and social relation development







Low Significant

- 12. Biodiversity management

13 significant
sustainability issues



















Sustainability key issues	Scope of impacts		Consistency		Reporting topics
	Internal	External	SDGs	GRI	
<p>Good Corporate Governance and Business Ethics</p> <p>Good Corporate Governance as a result the Company has good operating business result, building value, and sustainable returns in the long term, building trust to the shareholders, investors, and all groups of stakeholders.</p>	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Business Partners Customers Competitors Shareholders / Investor Creditors Public Sectors Community, Society and Environment Media and Other Organizations 		<ul style="list-style-type: none"> GRI 2-9 GRI 2-18 GRI 3 GRI 205 GRI 207 	<ul style="list-style-type: none"> Good corporate governance Anti-Corruption Tax Management
<p>Risk and Crisis Management</p> <p>Risks in various fields that may occur affecting the stability and continuity of business operations.</p>	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Creditors Shareholders / Investors 		<ul style="list-style-type: none"> GRI 201 GRI 3 	<ul style="list-style-type: none"> Risk and crisis management
<p>Sustainable Supply Chain Management</p> <p>Responsible supply chain management operate business with business ethics and consider the economic, social, and environment reducing risks, create continuity in business operations and reinforce the sustainability to the Company, business partners, and business alliance.</p>	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Public Sectors Community, Society, and Environment 	 	<ul style="list-style-type: none"> GRI 2-6 GRI 3 GRI 308 GRI 407 GRI 408 GRI 409 GRI 414 	<ul style="list-style-type: none"> Supply chain management
<p>Development of Technology and Innovation</p> <p>Development of clean energy business innovation that meet the society's needs which be able to cope with climate change which is an important factor pushing the Company to be the leader in the business of clean energy innovation and environmental friendly along with promoting the economics development of the country, creating returns for the business and sustainably improving the life of people in the society.</p>	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Competitors Shareholders / Investors Community, Society, and Environment 	 	<ul style="list-style-type: none"> GRI 3 	<ul style="list-style-type: none"> Customer Relationship Management Business innovation for Social Creation











We care Business



Sustainability key issues	Scope of impacts		Consistency		Reporting topics
	Internal	External	SDGs	GRI	
<p>Occupational health and safety in work place Manage operations to ensure safety and efficiency, decreasing losses, building trust to employees, business partners, contractors, including related stakeholders. Be able to enhance the business competitiveness.</p>	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Public Sectors Community, Society, and Environment 	 	<ul style="list-style-type: none"> GRI 3 GRI 403 	<ul style="list-style-type: none"> Safety, Occupational Health and Working Environment Management
<p>Labor management and human rights Treated labor fairly and follow international guidelines on human rights. Conduct business responsibly towards employees, customers, business partners, contractors, community, and related stakeholders. Be able to prevent human rights violation in the supply chain.</p>	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Shareholders / Investors Public Sector Community, Society, and Environment 	    	<ul style="list-style-type: none"> GRI 3 GRI 401 GRI 402 GRI 403 GRI 404 GRI 405 GRI 418 	<ul style="list-style-type: none"> Human Rights Approach
<p>Employees developments Developing employees who are unable to keep up with the Company's adjustment and growth which in return employees are unable to effectively replace employees who resign or retire.</p>	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Customers Business Partners Public Sector Community, Society, and Environment 		<ul style="list-style-type: none"> GRI 3 GRI 404 	<ul style="list-style-type: none"> Human Resource Management
<p>Employee remuneration and retention plan Employees are one among the factors that play an important part in building an organization's sustainability employees will receive appropriate remuneration have a reasonable convenience and be able to improve the life quality of the employees, increase satisfaction and affiliation of the employees to the organization, and reduce the turnover rate.</p>	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Shareholders / Investors 		<ul style="list-style-type: none"> GRI 3 GRI 401 	<ul style="list-style-type: none"> Human Resource Management
<p>Product Responsibility Develop a good quality and safety product with environmentally friendly. Build trust and increase the customer satisfaction. Be able to maintain current customer base, expanding new customer base, and increase the opportunity to expand the business with the customer.</p>	<ul style="list-style-type: none"> Employee 	<ul style="list-style-type: none"> Business Partners Customers Competitors Shareholders / Investors Creditors Public Sector Community, Society, and Environment Media and Other Organizations 	    	<ul style="list-style-type: none"> GRI 3 GRI 416 	<ul style="list-style-type: none"> Supply Chain Management Customer Relationship Management Business Innovation for Social Creation

We care People



Sustainability key issues	Scope of impacts		Consistency		Reporting topics
	Internal	External	SDGs	GRI	
<p>Waste management form the operation</p> <p>Without a waste management from the manufacturing process including other pollutions effectively according to the standard and economic circular guideline could create an effect to environment, community, and around factory's society, power plant including biological diversity.</p>	<ul style="list-style-type: none"> Employees 	<ul style="list-style-type: none"> Business Partners Public Sector Community, Society, and Environment 	 	<ul style="list-style-type: none"> GRI 3 GRI 306 	<ul style="list-style-type: none"> Waste and pollution management
<p>Create value for society</p> <p>Support activity and project in developing quality of life, creating valuable work, generating relationship through creating participation and assisting other activities of the community. Help the Company to be a good neighbor to society and grow together in a sustainable way.</p>	<ul style="list-style-type: none"> Employees 	<ul style="list-style-type: none"> Customers Community, Society, and Environment 	 	<ul style="list-style-type: none"> GRI 3 GRI 413 	<ul style="list-style-type: none"> Community and Social responsibility
<p>Biodiversity management</p> <p>Supporting a preservation and protection of environment resources, ecosystem, and environment diversity in the coexistence between nature and business operations to advocate the well-being of people in society.</p>	<ul style="list-style-type: none"> Employees 	<ul style="list-style-type: none"> Business Partners Community, Society, and Environment Public Sector 		<ul style="list-style-type: none"> GRI 3 GRI 304 	<ul style="list-style-type: none"> Environmental responsibility Greenhouse gas emissions management
<p>Climate change management</p> <p>Having strategies and management guidelines to deal with climate change that are consistent with the national goal through business development support renewable energy and new energy innovations. Participating in a problem solving of global warming along with driving a clean energy to be the main energy that drives into the low carbon society.</p>	<ul style="list-style-type: none"> Employees 	<ul style="list-style-type: none"> Business Partners Shareholders / Investors Public Sector Community, Society, and Environment 	    	<ul style="list-style-type: none"> GRI 3 GRI 302 GRI 303 GRI 305 GRI 306 	<ul style="list-style-type: none"> Greenhouse gas emissions management Water management Energy Management

We care Social



Part 3

Sustainability Objectives and Performance

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For a Growing Business

Developing the business for sustainable and stable growth with transparency, integrity, and effective corporate governance, capable of managing risks efficiently.





Good Corporate Governance

Important Performance Results

Corporate Governance Assessment Results (CGR) Target in 2023 (Excellent)

Y 2023 Excellent

Case of violations of business ethics complaints Target in 2023 (None)

None Y 2023



The Company has been evaluated for corporate governance for the fiscal year 2023 by the Thai Institute of Directors Association (IOD), and has been recognized as an "Excellent CG Scoring" company, achieving an average score of 111 percent. Moreover, all individual category scores are within the "Excellent" range. This marks the seventh consecutive year of such recognition.

Good Corporate Governance Policy

Conducting business with integrity, transparency, accountability, and managing risks responsibly towards stakeholders is considered a crucial mechanism for sustainable long-term business growth. Consequently, the Company has developed and announced the "Good Corporate Governance Policy" to serve as guidelines for the board of directors, subcommittees, executives, employees at all levels, as well as all relevant parties. This policy is embraced as the practice for conducting business with responsibility, integrity, transparency, accountability, and in accordance with ethical principles.

Accountability: Responsibility for the performance of duties and explain those actions taken.

Responsibility: Full awareness of duties with competence and efficiency.

Equitable Treatment: Respect for rights and treatment towards stakeholders with integrity and equality, including providing opportunities for stakeholders to participate fairly.

Transparency: Disclose information and operate business with transparency and accountability

Value Creation: Adding value to the business in both short and long term involves continuously improving and enhancing capabilities to remain competitive.

Ethics: Adhering to ethics and integrity in conducting business operations.

The adherence to corporate governance principles by the Company involves implementing and developing practices in accordance with the principles of good corporate governance for companies listed on the Stock Exchange of Thailand (CG Code). This is done through continuous review and improvement to align with ethical standards in conducting business. The structure and practices of good corporate governance cover four categories:

1. Equal treatment of shareholders and equitable treatment of shareholders' rights
2. Role of stakeholders and sustainable business development
3. Disclosure of information and transparency
4. Board responsibility

Further details on corporate governance can be found in the Annual Registration Statement for the year 2566 (Form 56-1 One Report) under the section titled "Corporate Governance"



→ Read more about Good Corporate Governance Policy

In addition to this, the Company has also developed and announced the "Business Ethics Policy" to guide the Board of Directors, subcommittees, executives, and employees at all levels in adhering to responsible corporate practices and managing the organization's systems in accordance with the principles of corporate governance beyond business components and legal principles. This policy covers ethics in business operations, ethics of the board of directors, executives and employees, and ethics towards stakeholders in establishing and maintaining relationships with all stakeholder groups.

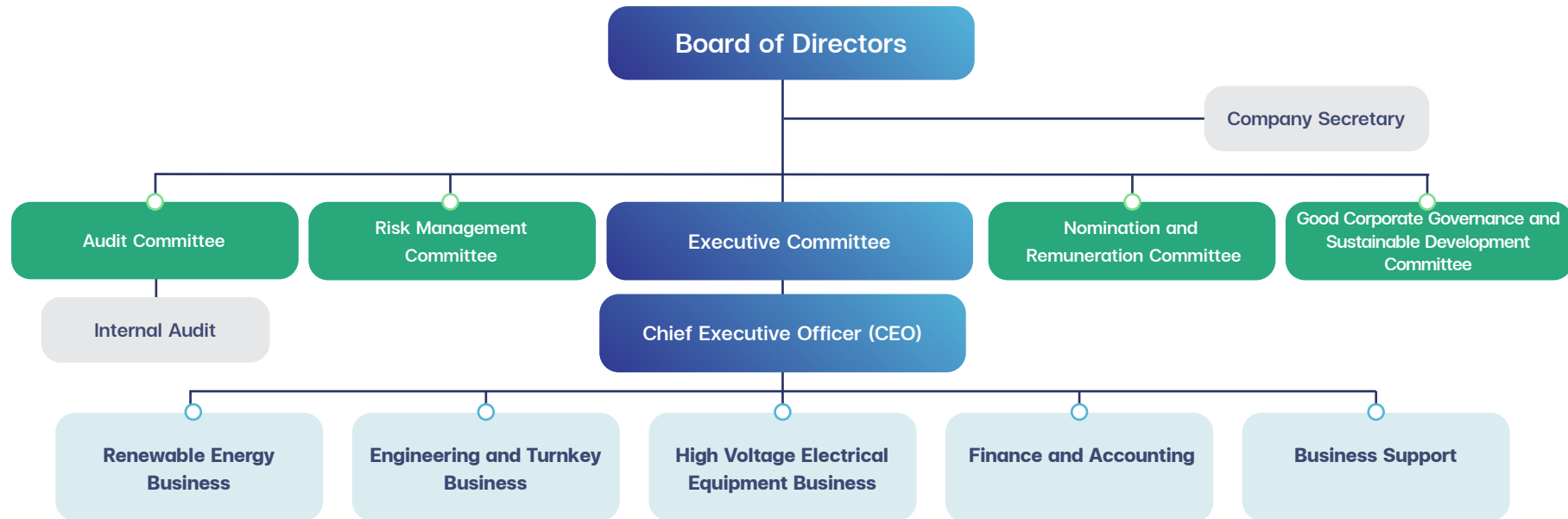


→ Read more about Business Ethics Policy



Good Corporate Governance Structure

As of 31 December 2023



The corporate governance structure of the Company consists of the Board of Directors, responsible for overseeing the Company’s performance, shareholders, including all relevant stakeholders, and subcommittees.

These subcommittees include:

1. Audit Committee
2. Risk Management Committee
3. Nomination and Remuneration Committee
4. Good Corporate Governance and Sustainable Development Committee
5. Executive Committee

The Board of Directors and its subcommittees play a crucial role in driving the sustainable growth of the Company. Therefore, charters have been developed to define the structure, qualifications, scope of authority, duties, and responsibilities. These charters also outline the procedures for meeting agendas to align with the Company’s objectives. In addition to the aforementioned, performance evaluations of each subcommittee are conducted in accordance with the charters of the various committees, including the Board of Directors Charter, Audit Committee Charter, Risk Management Committee Charter, Nomination and Remuneration Committee Charter, Good Corporate Governance and Sustainable Development Committee Charter, Executive Committee Charter, Internal Audit Charter, and Company Secretary Charter. These evaluations serve as frameworks and operational guidelines for corporate governance to be efficient and effective.



Good Corporate Governance Results

The Company has received the Corporate Governance Report of Thai Listed Companies (CGR) for the year 2023 from the Institute of Directors (IOD), being recognized as a registered company achieving the “**Excellent CG Scoring**” criteria. The Company attained an average score of 111 percent, with each category scoring within the “**Excellent**” range. This marks the seventh consecutive year of achieving excellence, with the average scores for each category as follows:

Corporate Governance Assessment Results	
1. Equal treatment of shareholders and equitable treatment of shareholders' rights	96 %
2. Role of stakeholders and sustainable business development	108 %
3. Disclosure of information and transparency	102 %
4. Board responsibility	100 %
Average Score	111 %



Anti-Corruption

Important Performance Results



The Company has been free of fraud and corruption complaints for 7 consecutive years



→ Read more about Anti-Corruption and Whistleblowing Policy



The Company is committed to conducting its business with transparency, integrity, good corporate governance, and social responsibility towards all stakeholders, including combating all forms of corruption and collusion. The Company has established a policy on anti-corruption and whistleblowing as a guideline for the board of directors, management, employees, and all stakeholders to adhere to. No participation in any form of corruption or collusion, whether direct or indirect. Furthermore, there is a provision for regular reviews, adjustments, and updates of the anti-corruption and whistleblowing policy. The internal audit department is responsible for assessing risks and reviewing compliance with these measures and policies. In the year 2023, the Company conducted an evaluation and review of employee practices related to the anti-corruption policy and guidelines for receiving gifts, assets, or any other benefits during festivities. This was done to ensure confidence in the adequacy and effectiveness of the Company's policies and internal control systems.

In addition, the Company has been certified as a member of the Thai Private Sector Collective Action Against Corruption (CAC) since 2017 and has been re-certified twice, first in 2020 (1st Re-certification) and then in 2023 (2nd Re-certification). These certifications reflect the Company's commitment, dedication, readiness, and effectiveness in conducting business with honesty, integrity, and preventing corruption and collusion in all forms.



The Company's strategies for preventing and anti-corruption are as follows:

1. Communication to Employees: The organization regularly communicates its anti-corruption and whistleblowing policy to employees through various channels within the Company. Additionally, regular reviews of this policy are conducted to ensure clarity and understanding among all staff members.
2. Implementation of Electronic Document Control Systems: Utilizing information technology systems for document control and approval processes ensures accuracy and ease of tracking approval outcomes. This system enhances transparency and accountability in decision-making processes across all company divisions.
3. Continuous Monitoring and Audit: Establishing a system for continuous monitoring and auditing, based on risk assessment, allows for the evaluation of the effectiveness of anti-corruption measures. This risk-based audit approach enables the Company to identify and address potential areas of vulnerability proactively.
4. Compliance with Legal Changes: Keeping abreast of legislative and regulatory changes related to corruption ensures the Company's ability to fully comply with legal requirements. This ongoing monitoring helps the Company maintain comprehensive compliance with anti-corruption laws and regulations.





Guidelines for Anti-Corruption



Establishing a culture of anti-corruption within the organization.



Adhering to policies without engaging in corrupt practices, whether directly or indirectly.



Implementing internal control systems that address the risks of corporate corruption.



Having processes to review sales and marketing practices, procurement, and other related activities transparently.



Implementing measures and policies for document retention and record-keeping to facilitate audits and ensure accuracy.



Promoting a culture where employees at all levels are encouraged to report and not turn a blind eye to acts that may constitute corporate corruption.



Personnel engaged in corporate corruption, which is a breach of ethics, **must be subject to disciplinary action according to regulations.**



Senior management **must regularly report audit findings on anti-corruption measures** to the audit committee and the board of directors.



Providing training, disseminating knowledge, and fostering understanding among employees and relevant individuals.



Promoting awareness of anti-corruption policies and encouraging outside the organization including stakeholders, to participate in anti-corruption through the Company's communication channels.

The Company has established a comprehensive anti-corruption and whistleblowing practice, promoting adherence to the policy among both internal and external stakeholders, in order to ensure that individuals adhere to the policy without engaging in any form of corruption or collusion, whether directly or indirectly. Moreover, the management are expected to lead by example and ensure that all employees follow the anti-corruption measures. The Company has implemented internal control systems and processes that consider the risk of corruption, through regular risk assessments and adequate risk management measures, it aims to effectively control corruption-related risks. Additionally, the Company provides channels for reporting complaints or whistleblowing related to corruption and collusion. Furthermore, the Company communicates and promotes awareness to foster a culture of anti-corruption and whistleblowing continuously, by conducting orientations for new employees to instill values and ethics regarding anti-corruption measures. Employees are encouraged to report any suspicious activities that may constitute corruption or collusion, and they are equipped to effectively communicate the key aspects of the policy to relevant stakeholders. Moreover, the Company requires involved individuals to submit acknowledgment forms indicating their awareness of the policy back to the Company. It also establishes procedures for managing information or whistleblowing related to anti-corruption and collusion. Employees who engage in acts of corruption or collusion, breaching the Company's code of ethics, are subject to penalties as outlined in the Company's regulations. Senior management must regularly report audit findings regarding anti-corruption measures to the audit committee and the board of directors.





Process for Managing Information or Allegations Regarding Anti-Corruption Measures

The Company has established a process for addressing clues or complaints, outlining the relevant personnel groups, the procedures for receiving complaints, conducting investigations, and imposing penalties 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 provide details of the matter to be reported (name or position of the alleged wrongdoer, time of observed misconduct), along with their name, address, and contact telephone number. The complaint shall be submitted to the Company’s complaint-handling channel through one of the following channels:

Whistle Blowing or Complaint relating to Corruption Channels



The Audit Committee’s e-mail :
audit_committee@gunkul.com



The Company’s website :
www.gunkul.com at
“Whistleblowing Channel”



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



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

Measures to Protect and Preserve Confidentiality

To safeguard the rights of complainants and whistleblowers acting in good faith, the Company has implemented measures to protect and preserve the confidentiality of the complainants and whistleblowers, as follows:

Measures to Protect and Preserve Confidentiality



Confidentiality of personal information such as name, address, or any identifying information of the complainant shall be maintained.



Protection of whistleblowers, complainants, witnesses, or individuals providing information from harassment or unfair treatment.



Preservation of the confidentiality of complaints and information; disclosure of information shall be restricted to individuals with relevant responsibilities.



Ensuring fairness towards whistleblowers or individuals providing information, preventing negative repercussions for these individuals.

Operational Results on Anti-Corruption

1. Reviewing the anti-corruption and whistleblowing policy for the year 2023 and disseminating this policy to all employees.
2. Reviewing employees’ understanding and practices regarding the anti-corruption policy and the prohibition of accepting gifts, assets, or other benefits during festive seasons.
3. Conducting detailed risk assessments to identify potential vulnerabilities to corporate corruption.
4. Declaring a commitment to anti-corruption efforts towards business partners and inviting them to join anti-corruption initiatives through various channels such as customer ethics brochures and the Company’s website.



Risk and Crisis Management

Risk Management Policy and Framework

Amidst the economic and political volatility globally, which impacts the economy and security of our country, along with the increasing severity of natural disasters due to climate change, it's crucial for the Company to recognize that inadequate risk management could lead to damage and adverse effects on its stability and security. Therefore, the Company evaluates and prioritizes risk and crisis management as critical areas requiring sincere implementation and monitoring, effective risk management instills confidence in stakeholders, enhances business competitiveness, and contributes to sustainable business growth in the long term.

Hence, the Company has developed an organizational risk management policy to serve as a systematic framework for managing risks. This policy is guided by principles of good corporate governance and sustainable development, aiming to support efficient operations and sustainable goal achievement. It enhances adaptability amidst economic, social, and environmental uncertainties, including various crises such as supply chain disruptions, climate change-induced disasters, pandemics, cybercrimes, political tensions, and other emerging risks. These risks, whether positive or negative, may impact business operations significantly. As a result, it poses a challenge for businesses to formulate strategies and various approaches to control and manage risks in their business operations. This encompasses risk management in strategic, operational, financial, and regulatory compliance aspects; as well as, seeking opportunities to gain competitive advantage in business operations. This is achieved through internal audits to ensure effective and efficient operations. The risk management approach covers and integrates risks from all aspects, including: 1) Strategic risks 2) Operational risks 3) Financial risks 4) Regulatory risks 5) Social and environmental risks 6) Emerging risks. This is done so that the Company can control these risks within acceptable levels.

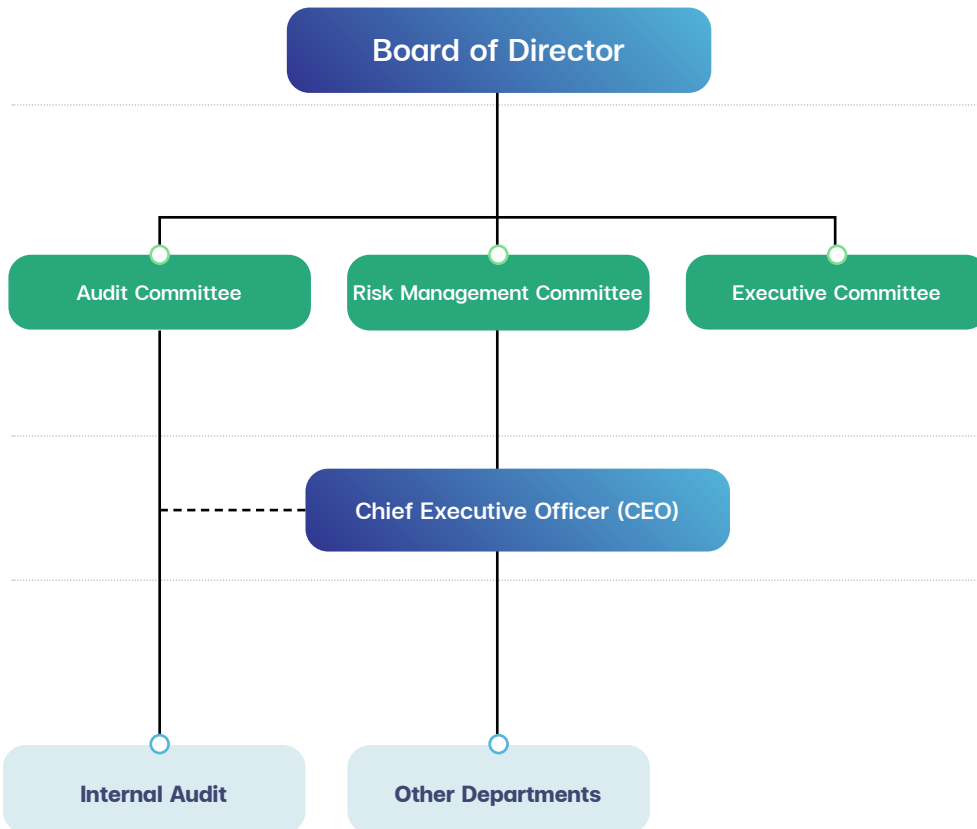


[→ Read more about Enterprise Risk Management Policy](#)



Risk Management Governance Structure

The Company establishes a risk management governance structure to fulfill its role in supervising, setting policies, guidelines, and frameworks for risk management operations, including monitoring and supporting the organization’s risk management to be effective and efficient. This includes:



- **The Board of Directors** is collectively responsible for overseeing the appropriate and consistent management of risks throughout the organization via the Risk Management Committee.

- **The Audit Committee** supports the Board of Directors in carrying out its responsibilities in risk management by ensuring confidence in the adequacy and effectiveness of the risk management system.

- **The Executive Committee** is responsible for considering and examining risk management, including the company’s internal control systems.

- **The Risk Management Committee** ensures that significant business risks are identified and regularly assessed, and effective risk management measures are established.

- **The Chief Executive Officer** is responsible for implementing organizational risk management policy, ensuring rigorous compliance, continuous monitoring, fostering risk awareness, and cultivating a risk management culture within the organization.

- **The Internal Audit** is responsible for examining the effectiveness of internal controls through the annual internal audit process, which includes auditing key business processes based on risk factors, as well as tracking the implementation of corrective actions for identified deficiencies.

- **Other relevant departments / functions** are responsible for identifying, analyzing, evaluating, and prioritizing risks, as well as establishing Key Risk Indicators (KRIs) for their respective areas of responsibility. Additionally, they are tasked with determining appropriate risk management



Risk Management Processes

The Company conducts assessments and reviews of various risks that continuously impact the company, considering both internal and external factors. There are systematic risk management processes in place to effectively manage risks and ensure that residual risks are maintained at an acceptable level.



Risk Identification

Continuous consideration and identification of risk factors are conducted in all aspects of business operations, encompassing both internal and external factors. This includes strategic risks, financial risks, construction management risks, legal compliance risks, information technology risks, other operational risks, corporate governance risks, as well as sustainability risks.



Risk Assessment

Assessing and prioritizing risks involves evaluating the likelihood of risks occurring and the severity of their impact across various dimensions.



Risk Response

Establishing measures for prevention and mitigation to address potential risks and their impacts is essential to respond to risks and opportunities in each category.



Risk Monitoring and Control

Assigning responsibilities and establishing measures for reporting and monitoring are essential to assess the impact of potential risks and maintain them at a low or acceptable level.



Communication and Reporting

Utilizing cutting-edge information technology in the Company's risk management processes for effective communication and reporting, and to ensure that all employee can access comprehensive risk management information. This ensures confidence that risk management processes are efficient and sufficient.

In this regard, concerning the details of significant risks for the Company, both existing risks and newly emerging ones, including mitigation strategies and risk controls, can be referenced and further elaborated upon in the Annual Registration Statement for the year 2023 (Form 56-1 One Report) under the section titled "Risk Management" and "Business Risk Factors".

Risk Management Culture

The Company promotes and instills awareness and knowledge of risk management among employees at all levels, making risk management an integral part of the organizational culture. Collaboratively preventing and mitigating the impacts on business operations enhances competitiveness and ensures sustainable growth in the long term, through regular and continuous participation in risk management at all operational levels, guidelines are established to cultivate a risk management culture through risk management policies. Additionally, support is provided to ensure that all managements and employees have responsibilities to identify, analyze, assess, and prioritize risks within their respective areas of responsibility. This includes establishing appropriate measures for risk management, considering it as an integral part of operational practices with accountability. Also, there should be communication and knowledge sharing, as well as expectations for continuous cultivation of a risk management culture within the organization through various channels such as meetings, training sessions, orientation for new employees, email notifications, e-learning platforms, and disclosures through the annual registration statement (Form 56-1 One Report) and sustainability reports, etc.





Business Continuity Management

As a guideline for managing business continuity within the context of economic fluctuations and uncertainties, including potential crises that may arise in business operations, it is essential to address various risks from both internal and external factors affecting the organization. These risks could include natural disasters, accidents, emergencies, pandemics, cyber intrusions, or threats that could negatively impact business operations and potentially lead to interruptions. The aim is to safeguard the interests of stakeholders, maintain the credibility of the business, and ensure its resilience. Therefore, the Company establishes and implements Crisis Management and Business Continuity Plans (BCP) to address the uncertainties of the aforementioned situations and to ensure the continuity of business operations, through risk analysis, prioritization of risks, systematic planning, and adaptation of the business continuity plan in simulated scenarios. The Company aims to refine and review the plan continually. This includes assessing the capabilities of personnel and the effectiveness of the plan in responding to crises. The management process involves:



Risk Management

Assessing and defining plans to control, prevent, and mitigate various risks and crises.



In Response to Incidents

Effective crisis management involves managing crises and preventing damages efficiently, including timely communication of information to stakeholders.



Recovery from Losses

Swiftly restoring business operations and ensuring stakeholders accept the aftermath

The Company conducts regular business continuity management exercises annually, with the latest being in the year 2023. During this year, the Company conducted drills for scenarios involving fire incidents and chemical leaks; as well as, a plan for recovering information technology systems from cyber threats. These exercises aimed to ensure that managements and relevant staffs understand their roles and responsibilities and know what actions to take in the event of emergencies or crises. Additionally, the exercises included evaluations and identification of shortcomings in the implementation of measures. This assessment aimed to guide further development and improvement of the plans to enhance their effectiveness and cover potential risks more comprehensively.





Supply Chain Management

Important Performance Results

The Suppliers who have been evaluated and selected as new suppliers

Target in 2023 (100%)

Y 2023

100

The Critical Supplier that have been assessed for sustainability covering economic, social, and environmental issues (ESG)

Target in 2023 (100%)

Y 2023

100



→ Read more about Procurement Policy



→ Read more about Supplier Code of Conduct

Guidelines for Supply Chain Management

The Company adopts sustainable development guidelines that consider environmental, social, and good governance issues, including human rights practices, as integral components of supply chain management. This approach ensures the selection of high-quality products and services that are efficient, effective, and sustainable, leading to maximum long-term results. It is also a key strategy in procurement management, leading to the formulation and declaration of procurement policies aimed at transparent, fair, and accountable procurement processes. These policies aim to ensure budget efficiency, sustainable resource allocation, risk management with suppliers, promotion of anti-corruption policy, support for business ethics, and fostering understanding among suppliers to engage in socially and environmentally responsible business practices. This includes developing all supplier groups to sustainably operate within the supply chain. The management guidelines include:



Supplier Code of Conduct



New Supplier Selection



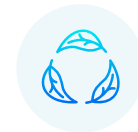
Supplier Risk Assessment



Supplier Performance Evaluation



Relationship Building with Suppliers



Promoting Environmentally Friendly Procurement and Sourcing



Supplier Code of Conduct

The Company has developed a supplier code of conduct for its suppliers with the objective of promoting ethical conduct and respect for human rights, freedom, and labor practices. This code emphasizes the importance of environmental conservation, workplace safety, and health; as well as, corporate responsibility to communities and society. The code includes the following details and relevant topics:



Let's care Business

Collaboratively Developing Comprehensive Business Practices to Responsively Serve Stakeholders

Good Corporate Governance:

- Accountability for performance outcomes, with the ability to articulate and explain actions taken
- Full awareness of responsibilities and effectiveness in carrying them out.
- Respect for rights and fair treatment of stakeholders, including providing opportunities for participation fairly
- Transparency in disclosure and conducting operations with scrutiny
- Adding value to the business in both short and long term through development, improvement, and enhancing competitiveness
- Conducting business with integrity and ethics

Business Ethics:

- Opposition to corruption and collusion
- Prevention of conflicts of interest and misuse of internal information for personal gain
- Whistleblowing
- Non-discriminatory practices
- Maintenance of confidentiality
- Resistance to unfair competition
- Consideration for safety, occupational health, and environmental factors in operations
- Protection of data security and information systems



Let's care People

Collaboratively Developing Human Capital to Excel as Individuals, Teams, and Organizations

Labor and Human Rights Practices:

- Human rights
- Fair employment practices
- Maintenance and development of employee skills and capabilities

Safety, Occupational Health, and Environmental:

- Workplace safety and environmental conditions
- Personal protective equipment
- Emergency preparedness and response

Let's care Social

Collaborating to Conduct Business with Social Responsibility, Environmental Friendliness, and Sustainable Growth



Community and Social Development Involvement:

- Implementation of projects for community and social development
- Foster collaboration to develop innovative initiatives for social and environmental improvement

Conducting Environmentally Friendly Business Operations:

- Energy management
- Water management
- Waste management from production processes
- Climate change impacts management



New Supplier Selection

The Company conducted a selection process for new suppliers through an assessment form for evaluation / selection of suppliers (new) covering issues related to environmental, social, and good corporate governance aspects, including compliance with human rights principles. In the year 2023, a total of 23 new suppliers passed the evaluation criteria and were registered as new suppliers, with a total purchase value of 870.15 million Baht. Additionally, the Company considered contracting with contractors, specifying sustainability conditions in every contract to be made with suppliers, to prevent breaches or misconduct against business ethics, the environment, and human rights.

Supplier Risk Assessment

The Company mandates the implementation of supplier risk assessment to prioritize risks that may impact the business operations of the organization throughout the procurement process, starting from registration, selection of new supplier, supplier evaluations, and up to monitoring the performance of suppliers. Criteria for assessing the level of risk (likelihood) and the severity of impact (impact) are established for the assessment as follows:

Level	Risk	Probability of Occurrence	Severity of Impact
5	Very High	Once a month at a time	More than 1 million Baht
4	High	Once every 1-6 months, not exceeding 5 times	500,000 - 1,000,000 Baht
3	Moderate	Once a year	100,000 - 499,999 Baht
2	Low	Once every 2-4 years	50,000 - 99,999 Baht
1	Very Low	Once every 5 years	Not exceeding 50,000 Baht

Issues related to sustainability risks associated with suppliers will be assessed comprehensively in the economic, social, and environmental aspects. Guidelines for managing and controlling supplier risks in each area have been developed as follows:

	Risk Factors	Management and Control Guidelines
 Economic	Status and financial stability of suppliers	<ol style="list-style-type: none"> Collateral Securities Financial Statement Audit
	High turnover suppliers	<ol style="list-style-type: none"> Monitoring Compliance with Contracts and Deliverables Payment Terms Based on Project Progress Work Collateral Securities
 Social	Child labor, illegal foreign workers and human rights violations	<ol style="list-style-type: none"> Establishing Criteria for Evaluating Supplier Qualifications On-site Business Visits
	Occupational Safety and Health	<ol style="list-style-type: none"> Pre-Work Safety Risk Assessment Mandating Essential Safety Equipment
 Environmental	Environmental care and waste management	<ol style="list-style-type: none"> Verify the Factory License (Ror. Ngor. 4) according to the type permitted by the Department of Industrial Works Establish Terms and Conditions in the Contract for Hiring and Monitoring Inspections



Supplier Performance Evaluation

The Company evaluates the performance of suppliers after the delivery of goods or services, covering both the main supplier group (Critical Supplier Tier 1) and the regularly assessed high-risk supplier group each year. The evaluation encompasses environmental, social, and good corporate governance (ESG) aspects, with criteria for categorizing supplier groups and assessment standards as follows:

Criteria for Categorizing Supplier Groups

The Company has categorized critical suppliers to enable effective analysis and strategy formulation in procurement operations, ensuring efficiency and systematic approaches. The criteria for grouping suppliers according to the size of purchase orders are as follows:

Criteria for classification of supplier	Supplier group	Assessment method
Orders valued at 10 million Baht and above	Main Suppliers (Critical Supplier Tier 1)	1. Supplier Evaluation Form 2. Onsite Audit
Orders valued between 5 to 10 million Baht	Secondary Suppliers (Non-Critical Supplier Tier 1)	1. Supplier Evaluation Form 2. Supplier Self-Assessment
Orders valued below 5 million Baht	Other Suppliers	1. Supplier Evaluation Form

In the year 2023, the Company had a total of 49 main suppliers (Critical Supplier Tier 1) who participated in the sustainability assessment and the evaluation of business ethics compliance, accounting for 100 percent of the total.

Supplier Group	Number of Suppliers (Units)	Purchase Value (Million Baht)	Evaluation Method	Assessment Form for Sustainability
Critical Supplier Tier 1	49	2,895,187,550	1. Supplier Evaluation 2. On-site Audit	100 %
Non-Critical Supplier Tier 1	739	431,260,470	1. Supplier Self-Assessment	-
Total	788	3,326,448,020		





Supplier Performance Evaluation Formats:

Annual Supplier Evaluation	Performance Evaluation During Operations	On-site Work Performance Inspection
Supplier evaluation comprehensively covers work efficiency, product quality, and sustainability	Evaluating social responsibility and environmental stewardship	Collaborating to identify solutions and jointly plan development strategies
Supplier Self-Assessment encompasses ESG aspects	Evaluating aspects of safety, occupational health, and the environment	Conducting evaluation of suppliers' production processes with low annual assessment results

Criteria for evaluating supplier performance:



Product and service quality



Completeness and timeliness of deliveries



Coordination and efficiency in service provision



Social and environmental responsibility

The scoring criteria and evaluation results for the year 2023 are as follows:

Criteria for Scoring		Evaluation Results in 2023
Level	Score (Percentage)	Number (Cases)
A = Excellent	Greater than 80	319
B = Good	70-79	23
C = Fair	60-69	0
D = Improvement needed	50-59	0
F = Removed from Approved Supplier List (ASL)	Less than 50	0
Total		342





The company has established guidelines for dealing with suppliers that may have an impact on the organization as follows:

Level	Impact on the Organization	Guidelines for Action
A	Low	Notify suppliers of the evaluation results, emphasizing the necessity to uphold operational standards in alignment with the Company's ethics.
B	Moderate	Notify suppliers of the evaluation results and specify the areas requiring improvement.
C	High	Notify suppliers of the evaluation results, indicating the areas that need to be addressed or improved, and request that corrective actions be completed within 30 days. Suppliers must report the results of their corrective actions back to the Company for reevaluation. If the 2 nd evaluation still does not meet the standards, extend the corrective action period to 60 days. If improvements are not achieved within 60 days, remove the trading partner from the Approved Supplier List.
D-F	Very high	Suppliers evaluated at this level will be notified of the evaluation results and given 30 days to complete the required improvements. The Company will conduct an On-Site Audit using the On-Site Audit Checklist as a criterion. If the deficiencies identified during the audit are not rectified, the suppliers will be removed from the Approved Supplier List.

Building Relationships with Suppliers:

The Company fosters strong relationships with suppliers through various activities aimed at exchanging beneficial knowledge and information. This includes sharing news and updates regarding the organization's business operations, policies, and relevant practices that may impact mutual business endeavors. Additionally, communication channels are utilized to convey sustainable business operation guidelines to suppliers. The Company promotes the use of environmentally friendly products through Green Procurement practices and collaborates with suppliers in selecting environmentally friendly products. Furthermore, the Company supports the economic growth of the country by prioritizing local procurement, with local procurement accounting for 93.12 percent of total procurement expenditure.



Tax Management

Important Performance Results

Complying with tax laws and regulations accurately and comprehensively

Target in 2023 (100%)

Y 2023

100



The Company is committed to principles of integrity, transparency, and full compliance with all relevant tax laws and regulations. This includes accurately and comprehensively adhering to tax laws and regulations; as well as, utilizing tax benefits without engaging in tax evasion and ensuring timely submission of tax returns as required by law.

Guidelines for Tax Management

Tax Risk Management



The Company adheres to and complies with tax laws, regulations, and provisions with meticulousness, transparency, and systematic tax risk management to ensure confidence that the Company can assess and manage tax risks accurately. This includes tax risks arising from changes in tax policies or governmental tax management guidelines. The tax risk management policies and procedures are meticulously outlined and documented, with risk assessments conducted for all tax-related activities. These assessments encompass risks associated with compliance with laws and regulations, as well as risks related to financial reporting audited by external independent auditors.

Tax Transparency



The Company transparently reports its tax operations to the government in accordance with disclosure requirements concerning all tax-related activities. It also supports policies that mandate public disclosure of tax-related information, including reporting on the Company's contributions to overall economic development. Furthermore, the Company is committed to being a responsible corporate citizen by excelling in tax governance and fostering tax transparency. This commitment is aimed at fostering trust within society and among all stakeholders.

Employee Ethical Conduct



Employees are required to adhere strictly to company rules, regulations, and protocols in carrying out their duties to prevent risks that may have tax implications and potentially cause harm to the Company. The Company ensures regular communication and training sessions to continuously enhance employees' knowledge and understanding of their job responsibilities. This is aimed at ensuring that their actions align with ethical standards and regulatory requirements, fostering a culture of proper ethical conduct.



→ [Read more about Tax Management Policy](#)



The Company operates its business with transparency in accordance with principles of good corporate governance, acknowledging its responsibility and managing taxes responsibly to build confidence and trust among all stakeholders. Currently, the Company has established measures and guidelines for tax management to comply with tax laws and relevant regulations. This serves as a framework for accounting personnel and employees involved in financial reporting and tax planning to efficiently carry out their duties in line with the organization’s activities. This helps ensure that tax payment processes are conducted accurately and fully compliant with the law in order to reduce the risk of increased fines and penalties, minimize errors in tax calculations, and effectively plan to mitigate potential tax issues in the future, the Company has implemented training programs to enhance the knowledge of relevant employees. These training sessions ensure that employees understand how to perform their tax-related duties correctly. Additionally, they can apply this knowledge effectively to the business operations. Continuous training is provided annually to keep employees updated with the latest tax regulations and practices, enabling them to apply their knowledge efficiently and effectively.

Effective Tax Rate

Information	Unit	2020	2021	2022	2023
Net profit before income tax	Baht	3,544,704,449.00	2,439,355,631.00	3,315,119,132.00	1,653,921,078.00
Income tax expenses	Baht	119,411,606.00	187,837,750.00	300,741,190.00	179,028,132.00
Corporate income tax rate	%	20	20	20	20
Effective tax rate	%	3.37	7.70	9.07	10.82

In the year 2023, the effective tax rate for the Company was 10.82 percent, while the corporate income tax rate in Thailand was 20 percent. The variance in the tax rate stems from the exemption of income tax from investment promotion privileges for electricity production from renewable energy by the Company and its group.





For a Livable Society

Creating a resilient and livable society by prioritizing equality for all groups, treating everyone fairly and with respect for human rights.





Human Rights Approach

Important Performance Results



Amidst new social situations and challenges, such as discrimination, the use of forced labor, and other conflicts that may be related to or linked to human rights violations, the Company’s business operations may inadvertently be connected to human rights issues, whether directly or indirectly. Therefore, conducting business with mere respect for human rights alone may not be sufficient. It is essential to protect against human rights violations fairly. This entails integrating principles and practices regarding human rights into the business processes. The Company consistently recognizes that respecting and protecting human rights are fundamental factors contributing to its sustained success and driving business growth. Therefore, the Company has developed a human rights policy to support the board of directors, management, and employees; as well as, stakeholders, ensuring their awareness and adherence to legal and international human rights principles rigorously. This is to ensure that the Company’s operations are free from human rights violations, based on an understanding of the value and equality of all individuals. The policy establishes fundamental responsibilities that the Company must adhere to regarding stakeholders, including:



→ [Read more about Human Right Policy](#)



Promoting equality and respect for differing opinions

We honor each other and treat one another with equality, without discrimination or bias. We recognize and respect individual differences in physical appearance, mentality, ethnicity, nationality, religion, gender, language, age, skin color, education, social status, culture, customs, or any other matter.



No illegal labor

We adhere to all applicable laws and regulations regarding labor practices, both domestically and internationally, and we do not engage in any form of forced labor.



Managing human resources fairly and without discrimination

Establishing processes and conditions for employment that encompass recruitment, employee benefits, compensation, and fostering employee development. These efforts must be conducted with fairness and equality, while creating a conducive work environment that promotes employee well-being and health, ultimately enabling employees to perform their duties effectively.



Respect for human dignity

Respect for human dignity includes fundamental freedoms as stipulated in the Constitution, as well as ensuring safety of life and property, and the privacy of all individuals.



Direct communication with stakeholders

Establishing direct channels of communication with stakeholders, including avenues for complaints and grievances, along with effective processes for addressing and resolving complaints and grievances impartially, ensures transparency and accountability in operations.



Adherence to ethics, morality, and professionalism

We adhere to ethics, morality, and professionalism in conducting business and operating the company.



Human Rights Operational Processes







The Company promotes development towards fostering an organizational culture of respecting human rights internally, encompassing all stakeholders within the business value chain. This is achieved through the implementation of human rights processes, including the establishment of human rights policy, impact assessments on stakeholders, determination of prevention and mitigation measures for risks covering labor rights, community rights, as well as customer rights. Additionally, it involves tracking progress and handling complaints and remedies through various complaint channels. Any complaints received by the Company will be thoroughly reviewed and considered confidentially. If the allegations are substantiated, the Company will undertake appropriate and fair remedial actions to redress any violations of human rights. Those found guilty of violating human rights will be considered as having committed misconduct and will face disciplinary action according to company regulations or legal proceedings.





Key human rights risks

Human Rights Issues	Affected Stakeholders	Preventive Measures and Risk Control Measures
<p>Unlawful labor hiring / forced labor in the supply chain</p>	 <ul style="list-style-type: none"> • Employees • Contractors / Business Partners 	<ul style="list-style-type: none"> • Establish a human rights policy that conforms to both international and local laws and regulations regarding labor usage, ensuring that no forced labor is employed in any form. • Assess and evaluate the performance of partners and contractors comprehensively regarding human rights issues. • Ensure contracts include sustainability conditions to prevent breaches, misconduct, or violations of business ethics, the environment, and human rights by partners and contractors.
<p>Employee and Contractor Health and Safety in the Workplace, and Nearby Communities</p>	 <ul style="list-style-type: none"> • Employees • Contractors / Business Partners • Communities / Society and the Environment 	<ul style="list-style-type: none"> • Establish an environment and work conditions that comply with relevant regulations, requirements, and laws concerning health and safety. • Develop operational standards to control work practices to meet safety and quality standards. • Provide pre-employment occupational health and safety training for employees and contractors. • Conduct annual training sessions and emergency response drills for employees and relevant stakeholders
<p>Safety for the Lives and Property of Customers and Nearby Communities</p>	 <ul style="list-style-type: none"> • Customers • Communities / Society and the Environment 	<ul style="list-style-type: none"> • Produce and develop products and services of high quality that comply with safety standards. • Provide guidance and continuous training on installation, operation, and inspection of related electrical systems and equipment. • Implement a process for receiving and addressing customer complaints and feedback systematically to address and prevent identified issues.
<p>Data Leakage / Inappropriate Use of Personal Data</p>	 <ul style="list-style-type: none"> • Employees • Customers • Business Partners 	<ul style="list-style-type: none"> • Develop and implement appropriate data protection practices rigorously. • Provide training to employees on legal requirements and regulations concerning the security of personal data. • Enhance information systems for controlling, preventing, and monitoring cyber threats, including regularly developing and testing response plans.



Whistle Blowing or Complaint Channels

The Company provides channels for reporting grievances or complaints related to labor and human rights issues. These channels are the same as those for reporting grievances or complaints related to corruption and corporate governance. The Company defines the relevant stakeholders, the procedures for receiving complaints, the investigation process, and the penalties, as follows:

ช่องทางการแจ้งเบาะแสหรือข้อร้องเรียนการทุจริตและคอร์รัปชัน

	The Audit Committee's e-mail: audit_committee@gunkul.com		The Company's website: www.gunkul.com at "Whistleblowing Channel"
	Sealed postage to Chairman of the Audit Committee Gunkul Engineering Public Company Limited 1177 Pearl Bangkok Building, 8 th Floor, Phahonyothin Road Phayathai, Phayathai, Bangkok 10400		"Whistle Blowing and Complaints Box" (The box is located within the company and can only be accessed by the secretary of the audit committee.)

Addition to the Company's operation of a reporting system for human rights violations, the Company also communicates and educates employees on human rights to ensure understanding of the guidelines for behavior to prevent human rights violations within the Company. This includes preventing involvement in violations by business partners within the value chain. Furthermore, the Company has established a labor welfare committee to represent employees in overseeing and promoting fair and equitable practices; as well as, developing labor operations. The committee also promotes knowledge and understanding of fair labor practices based on human rights principles, while providing assistance to labor and creating a network of company laborers. Additionally, the committee facilitates communication and listens to feedback to continuously improve the employee welfare processes. The roles of the labor welfare committee are as follows:

1. Collaborate to summarize, consult, negotiate, and provide accurate information to the employer to arrange suitable welfare benefits that meet the needs of employees.
2. Inspect, control, and oversee the welfare benefits provided by the employer to employees, and develop and improve them for the benefit of both employees and the employer.
3. Inspect, control, and oversee the welfare benefits provided by the employer to employees.
4. Act as a representative for public relations and serve as a good example according to mutual agreements.

Human Rights Approach Result

The Company has been recognized as an exemplary organization in the field of human rights for the year 2023 by the Department of Rights and Liberties Protection, Ministry of Justice. This recognition was achieved through a selection process conducted by the operational committee of Thailand's National Human Rights Commission, aiming to set a good example for other organizations in conducting business with respect for human rights. Gunkul Engineering PCL has received the Human Rights Exemplary Organization Award in the Business Sector (Large Scale) for the second consecutive year. In the year 2023, the Company's status was elevated to the distinguished level of recognition. Furthermore, G.K. Assembly Co., Ltd. has been awarded the Human Rights Exemplary Organization Award in the Business Sector (Medium Size) at the commendable level for the second consecutive year. This award reflects the company's dedication to developing and conducting business under the principles of respecting human rights. The company not only focuses on clean energy innovation but also prioritizes global sustainability and quality of life. Operating with transparency, ethical standards, and social responsibility in accordance with human rights principles, the company aims to drive growth, strengthen infrastructure, enhance quality of life, and foster sustainable environmental improvement for society.





Human Resource Management

Important Performance Results



Strategy for managing and retaining employees

under the “RISE” program for HR Transformation, aimed at implementing strategies for personnel management and development within the organization to adapt rapidly to the goals set by the chairman of the company’s board. Organizational personnel must be prepared to adapt quickly and keep pace with the rapid changes, responding promptly to the fluctuations in the global economic situation and various factors that may impact employees and the organization’s business. Creating employee engagement is a crucial key to building a strong and sustainable organization. This is achieved through developing employees to have global competencies aligned with the organization’s core competencies, promoting quality of life and good health, and fostering organizational leadership in the renewable energy sector. Employees serve as the driving force for continuous organizational development. When employees are happy and feel valued in their work, it helps retain talented individuals who can contribute to the organization’s ongoing success. This, in turn, leads to the creation of new innovations and profitability in the future. This is facilitated through the implementation of activities and development programs for personnel under the “RISE” project.

Rise for HR Transformation



The Company promotes the development of employees at all levels and fosters internal bonding to care for and retain our employees because we always recognize that “employees are the vital heart driving the organization’s success sustainably.” Given the constantly changing social context, the Company must adapt its strategies and management approaches flexibly to care for and retain employees with diverse attitudes and work values. This includes aspects such as benefits, compensation, work formats, challenges in the workplace, as well as career advancement opportunities. Including career advancement pathways, skilled personnel recruitment processes, motivation enhancement, skill development, and employee care are essential foundations for promoting resilient employees and creating a learning organization. These elements are crucial for continuous improvement and driving sustainable organizational growth.

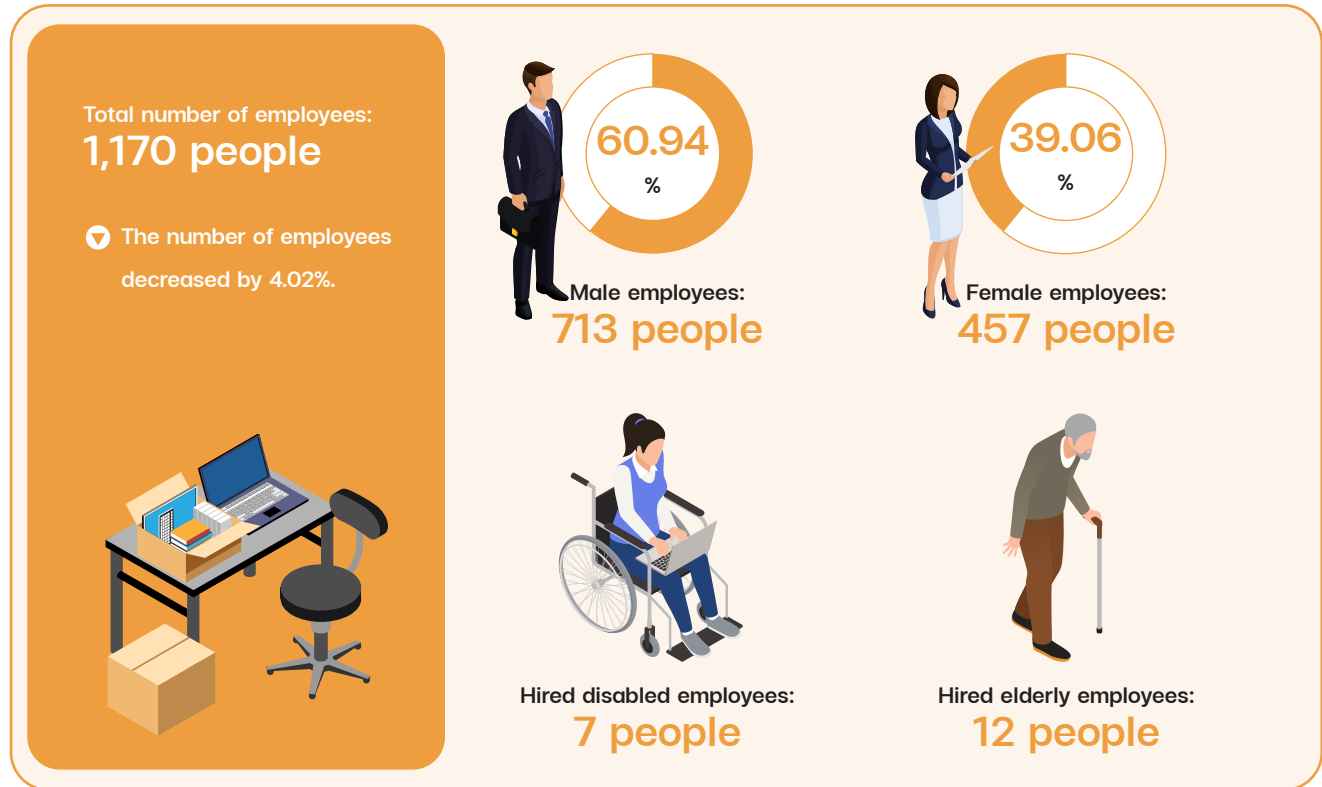
The Company has a strategy for caring for and retaining employees, starting with **building resources to ensure that employees work happily, inclusively, and equitably**. This includes a skilled personnel recruitment process that aligns with the business’s needs and growth, along with improving compensation systems to remain competitive in the industry. Additionally, it involves developing work formats and challenges through an effective performance evaluation system



(Key Performance Indicators) and enhancing skills and knowledge to align with the organization’s core competencies. In addition, the Company implements career path and succession plans to **proactively prepare for and support continuous and sustainable organizational growth**. These plans **aim to promote a learning organization, fostering continuous growth and innovation**, through training and development programs, employees’ skills and abilities are enhanced to adapt to changing skill requirements, aligning with the Company’s digital economy and new business directions. Furthermore, the Company **utilizes systems and technology to support globally efficient operations**, elevating digital systems for enhanced work efficiency and analyzing data for personnel resource forecasting and planning purposes. Moreover, the Company also **cultivates a strong organizational culture for sustainable development** through the creation of an Employee Journey for all employees, instilling the G-R-O-W-T-H DNA culture. This involves guidelines for implementing strategies such as employee attraction, retention, and holistic personnel care.



Employee Retention



The Company operates in accordance with human rights principles, including relevant regulations and laws. We strive to create a conducive environment for all employees to work happily, inclusively, and equitably. Our recruitment and personnel selection processes are conducted fairly and align with the Company’s business direction. We support diversity among our employees without segregation, enabling everyone to work happily and efficiently. As of December 31, 2023, the Company had a total of 1,170 employees, comprising 713 male employees (60.94 percent) and 457 female employees (39.06 percent). Furthermore, the Company also promotes employment and generates income for disadvantaged individuals (persons with disabilities and the elderly) to create meaningful jobs and promote self-sufficiency for themselves and their families, including enabling them to facilitate equal participation in society and foster happiness among all individuals. Details on employment information can be referenced and further elaborated under the “Employment Information” section. Regarding the Company’s sustainability performance over the past year, efforts have been made to attract and retain employees, covering aspects such as proactive recruitment, appropriate benefits and compensation, and fostering employee engagement.



Recruitment Efforts

 New employees hired: 361 individuals
Success rate of hiring according to plan: **74.90%**

 Interns: **34 individuals**
Interns who were subsequently offered employment opportunities: 1 individual

Amidst the challenges in the labor market in recruiting skilled and competent personnel for designated positions, who can take responsibility for completing tasks successfully and contribute to achieving the Company’s business growth objectives to the fullest extent, the Company places great importance on a proactive recruitment process that can attract and motivate job applicants. In 2023, the Company has introduced new recruitment channels to attract and motivate applicants with the necessary knowledge and skills to join the workforce. These channels include:



- **Social Media Recruiting:** Given the current role of social media in people’s daily lives and its significance as a marketing channel, the Company has expanded its recruitment channels through various social media platforms. For instance, by creating the Gunkul Career page on Facebook, the Company promotes job vacancies to a wide audience, allowing for effective communication and engagement with potential job applicants. This approach enables the Company to reach and share information with interested individuals, thereby increasing the likelihood of finding candidates who match the specified qualifications.
- **Employee Referrals:** Recruiting personnel through employee recommendations within the organization or through programs like “Friend Referral”. When an applicant becomes an employee, both the referring employee and those who recommend within the same group are eligible for referral bonuses, up to a maximum of four times (subject to company conditions).
- **Community Partnership Program:** Collaborating with officially recognized educational institutions to create opportunities and cooperation in student internships. This initiative aims to promote the Company to students and generate interest among them. In the year 2023, a total of

34 students participated in the internship program, comprising 18 general internship placements and 16 cooperative education placements. These students gained practical experience and learning opportunities across various departments of the Company, tailored to their skills and abilities. This approach ensures that students are adequately prepared for future job applications and work responsibilities.

- **Job Fair:** Organized to promote job positions and communicate the benefits and growth opportunities available in the renewable energy sector to the younger generation. This initiative aims to develop the renewable energy business robustly and sustainably by attracting new talent and fostering growth within the industry.





Welfare and Compensation



Scholarships for employees:
87 scholarships
Total value: 480,000 Baht

To promote creativity, continuous self-development among employees, and strengthen their commitment to the organization, including fostering motivation in their work, the Company provides appropriate and sufficient benefits and compensation. This includes both monetary and non-monetary rewards. Monetary compensation consists of fair and equitable remuneration for work performed and non-monetary compensation includes a conducive working environment, occupational health and safety, professional development, and internal bonding activities. The Company allocates benefits and compensation for all employees as follows:



Monetary Benefits and Convenience Facilities:

- Bonus payments and annual salary adjustments assessed based on work performance and skills
- Employees' provident fund
- Employee uniforms
- Overtime pay
- Travel allowances, daily allowances, and accommodation expenses
- Annual salary structure enhancements and continuous attractive benefits, such as adjustments to the salary structure due to changes, flexible working hours, additional vacation days based on length of service, and personal leave entitlements.



Health and Safety Benefits:

- Group accident insurance
- Travel insurance for international travel
- Health insurance coverage for outpatient and inpatient care
- Dental care assistance
- "Healthy Together" activities with professional trainers held weekly



Family Care Benefits:

- Educational fund for employees' children
- Financial assistance in the event of a disaster
- Funeral assistance for the employee's spouse, parents, and children



Psychological Well-being and Engagement Activities:

- Employee birthday celebrations / gifts
- Employee lunch gatherings during festivals, successful goal achievements, and management birthdays
- Knowledge sharing activities that provide a platform for employees at all levels to impart knowledge to their colleagues



→ [Read more about Remuneration and Welfare for Executives and Employees Policy](#)



Employee Engagement



The Company promotes equal opportunities for all employees at every level and emphasizes the importance of fostering a bond with employees through the organizational culture of **‘GROWTH together.’** The organization firmly believes that behaviors stemming from mutual learning and shared values among individuals within the organization, which are practiced and upheld as norms, are akin to establishing the foundation of the organizational work culture. Establishing a bond between employees and the organization is a crucial mechanism in fostering relationships and motivating high-quality current employees to remain with the organization; as well as, attracting talented individuals to join the Company. This leads to driving developmental changes, expanding business opportunities, aiming for comprehensive leadership in the energy business sector, and ensuring sustainable progress in the years to come. The Company fosters employee-organization bonds through participatory activities involving employees, such as the following:

Organizational goal-driving activities, such as organizing the Business Strategic Plan and KPIs Meeting.

Health and relaxation activities, such as Healthy Together, Gunkul Fit for Goal, and various celebratory events.

Relationship-building activities, such as Team Building activity.

Social activities, such as providing scholarships for employees’ children and blood donation activities.



Employee Retention Outcomes

“The importance of fostering employee engagement is clearly evident as it directly impacts the organization’s success. When employees feel like they are part of the organization and are willing to offer suggestions for improving the internal human resource management systems, it contributes to the organization’s development. Additionally, the Company aims to strike a balance between work and personal life, encouraging employees to lead fulfilling personal lives alongside their work responsibilities, resulting in happier and more productive employees. This has led to a decrease in the resignation rate as employees feel more connected to the organization. In the past year, in 2023, the employee satisfaction and engagement survey results representing 77.00 percent a decrease of 9.83 percent from previous surveys. Due to the Company’s initiative to align with the evolving needs of each generation of employees and adapt to the current situation, the questions in the employee satisfaction and engagement survey have been revised. The focus is on the employees’ work experience, including aspects such as job roles and responsibilities, career advancement and stability, compensation and benefits, working environment, peer relationships; as well as, internal communication and activities. The data collected from the survey will be analyzed to identify areas for improvement and development. This analysis will guide the Company in implementing changes that meet the needs of employees and enhance overall work experience comprehensively.

Employee Retention Outcomes	2020	2021	2022	2023
Manpower requirement rate (number)	-	-	577	482
Number of new employees recruited (number)	-	-	433	361
Proportion of successful hiring according to plan (percentage)	-	-	75.04	74.90
New hiring rate (percentage)	1.90	1.84	3.53	2.62
Employee satisfaction score (percentage)	87.00	86.00	86.83	77.00
Employee turnover rate (percentage)	1.39	1.63	1.54	2.50

Integrated Human Resource Development

The Company promotes the establishment of a learning organization to continuously develop its workforce, **as employees** are the starting point and vital driving force to lead the organization towards success. Therefore, the Company has established guidelines for integrated human resource management to foster opportunities and career advancement, ensuring stable returns, and developing potential alongside fostering virtues. This is achieved through participatory work systems, promoting skills enhancement, and continuous learning. The aim is to create skilled workers, effective team management, and to build an excellent organization, focusing on reinforcing desired characteristics, skills, and potentials as expected by the organization. This is achieved by linking employee behaviors with the organizational culture of **“Organizational Growth, Employee Growth”** (We GROWTH Together), which is considered the foundation of the organization, ensuring its stability and sustainability. The Company has processes in place for the integrated development of employee capabilities, as follows:



Training and Development
Plan Creation Training Road Map



Internal Knowledge Management within the Organization



Career Progression Planning
Career Path



Succession Planning for Key Organizational Positions
Succession Plan



Training and Development Plan Creation (Training Road Map)

 The average training hours per person per year is **8.09 hours/person/year.**

 There are **122 training courses in total.**

 The total training hours conducted amount to **9,471 hours.**

 **1,625 employees** received training.

 The training budget is **3.63 million Baht.**

The establishment of a training plan that aligns with the organization’s goals and strategies is crucial for developing personnel who can meet the business objectives. The Company therefore facilitates learning and training in diverse and flexible formats to enhance employees’ learning efficiency within the organization. This is achieved by employing the 70:20:10 learning model in training employees at all levels. The focus is on ensuring that employees grow alongside the organization, with 70 percent of learning coming from real work experience, experimental learning, or on-the-job experiences. Another 20 percent comes from learning through job instruction by leaders, supervisors, mentors, or coaches, while the remaining 10 percent is derived from formal training and classroom settings. The process of creating a training plan involves the following steps:



Training needs Analysis



Training and Development Plan



Individual Development Plan



Evaluate and Follow up

Developing employee capabilities through the creation of training plans to prepare for organizational growth is essential. This process begins with analyzing the development needs and defining training curricula tailored to job positions. This aims to enhance both job-specific skills and managerial abilities, allowing employees to advance to higher-level roles. Additionally, the Company develops Individual Development Plans (IDPs) for successor groups, aligning with the Company’s ethos of **“excellence in skill, team management, and organizational leadership”**. These plans focus on acquiring the necessary knowledge and skills to achieve successful outcomes and gain acceptance from peers upon assuming new positions. The training needs analysis considers experiences, job performance assessments, and role-specific expectations to design appropriate training programs that best address employees’ development needs. Moreover, tracking training outcomes enables continuous improvement and ensures that training plans align with ongoing business objectives. In the year 2023, the Company conducted training and development programs according to the Training and Development Plan, consisting of a total of 122 courses. These courses were aimed at upskilling, reskilling, and advancing employees’ skills, including acquiring new and essential future skills. The courses were categorized into three main areas:



Types of Training

Technical Skill Training

- New Employee Orientation Training Program
- Engineering Training Course
- Occupational Health and Safety Training Course
- Legal and Regulatory Compliance Training Course
- Financial and Accounting Training Course
- Energy and Environmental Training Course
- Sales and Marketing Training Course
- Quality Control Training Course
- Digital and Information Technology Training Course

Examples of Training Courses

Engineering Training Courses:

- Solar Farm Design Principles and Underground Power Line Conversion Training Course
- Solar Rooftop Electricity Generation System Training Course
- Energy Storage Systems, Utilization, and Microgrid Systems Training Course

Occupational Health and Safety Training Courses:

- Electrical Safety Training for Employees Working with Electricity
- Managerial and Supervisory Level Safety Officer Training Course
- Fire Drill and Evacuation Training Course
- Safety Instructor in Confined Space Work Environments Training Course
- Hazardous Chemical Handling and Emergency Spill Response Training Course
- Working with Press Machines Review Training Course (Fixed and Mobile Installations)
- Forklift Safety and Maintenance Inspection Training Course

Training Course on Regulations and Laws:

- ISO 14001:2015 Introduction and Internal Auditor Course
- ISO 9001:2015 Quality Management System (QMS) Course
- Anti-corruption Compliance Guidelines Course

Training Course on Finance and Accounting:

- Financial Reporting Standards Update for NPAEs
- Tax Law Update for the Year 2023 and Withholding Tax

Training Course on Energy and Environment:

- Greenhouse Gas Management Course
- Basic Knowledge on Carbon Footprint and Carbon Trading Course
- Management of Waste or Disused Materials Course (Year 2023)

Training Course on Digital and Information Technology:

- Cybersecurity and Information Technology Policy Course
- Canva for Working: Using Canva like a Pro Course





Types of Training

Soft Skill Training

Attitude and Work Behavior Training, such as Communication, Persuasive Speaking, Active Listening, Adaptability, Empathy, and Teamwork Skills

Examples of Training Courses

- Efficient Cross-Functional Work Training Course
- MBTI Metrics in Daily Life and Work Training Course
- Critical Thinking Plus+ Training Course
- Creative Talk Conference 2023: The Next Big Things Training Course
- Building High Trust & Inclusive Culture Training Course



Types of Training

Managerial Skills

Leadership and Management Training Course

Examples of Training Courses

- ESG Management: Sustainable Development Operations Guidelines Training Course
- Employee Capability Development through Individual Development Plans Training Course
- Discipline Strategy for Employee Operations Training Course
- CAE Chief Audit Executive Professional Leadership Program
- Key Performance Indicators (KPIs) and Competency Assessment Criteria Training Course



Knowledge Management

Knowledge Sharing Activities Training:
13 Courses



3 Courses
for Senior Executive
Management Level



3 Courses
for Assistant Managers
and Managers



4 Courses
for Department / Unit Heads



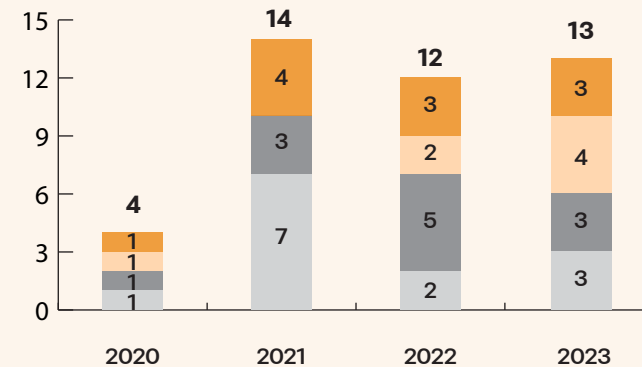
3 Courses
for Junior to Mid-level Positions

The Company manages internal knowledge through a platform that facilitates knowledge sharing among employees at all levels who possess high potential and expertise in various areas, including managers and staff who have received extensive external training. This knowledge-sharing approach involves training sessions designed to encourage employees to transmit their knowledge and skills to interested colleagues within the Company, fostering a relaxed and authentic atmosphere. The objectives include promoting learning, creating a vibrant work environment, fostering positive internal relationships, instilling a sense of belonging, and building trust within the organization. The expected outcomes include knowledgeable and skilled employees capable of professional growth and advancement; as well as, increased satisfaction and commitment to the organization. Additionally, the Company has established a Knowledge Center to store, retrieve, and continuously enhance learning within the organization.

Employees who transfer skills and knowledge through Knowledge Sharing courses (Course)



- Junior to Mid-level Positions Level
- Department/Unit Heads Level
- Assistant Managers and Managers Level
- Senior Executive Level





Development of Career Path Plans

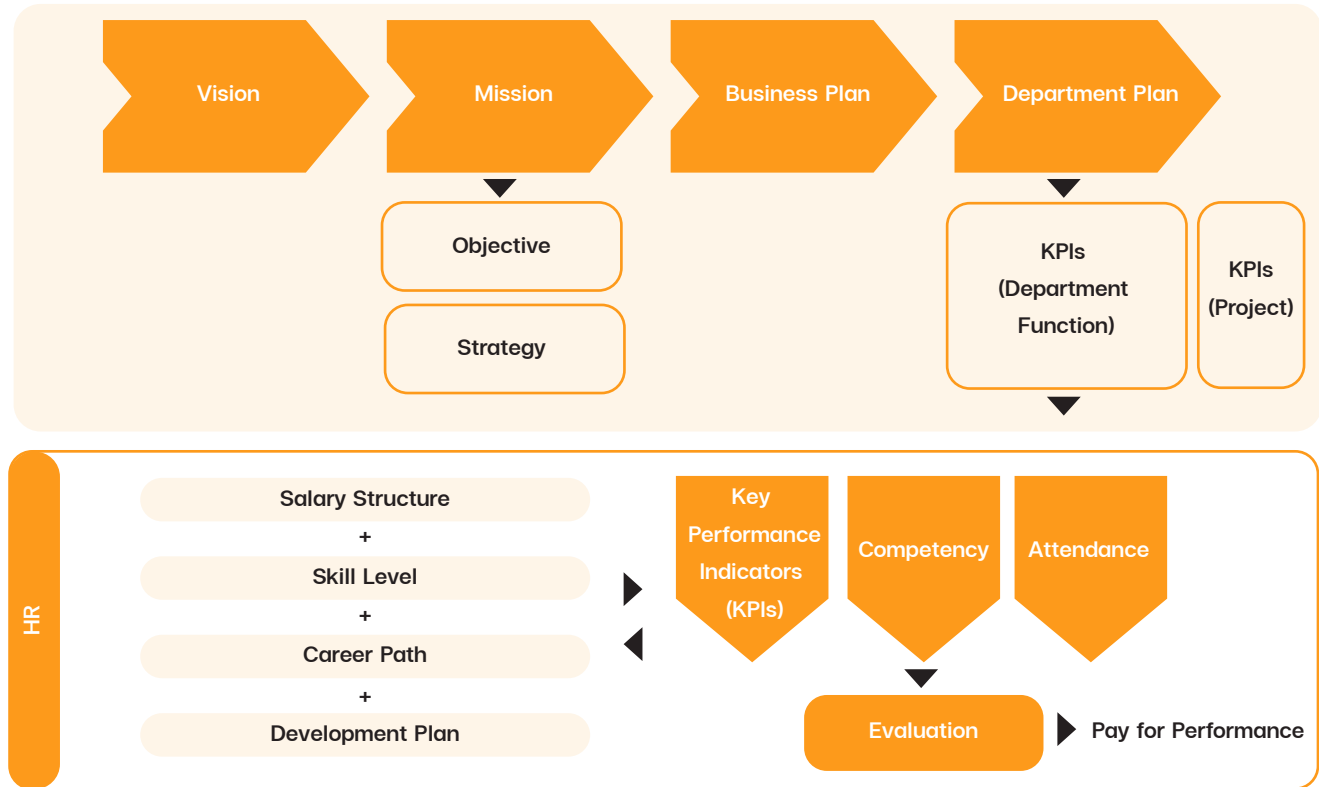
Employees who have been promoted:
29 People

Assistant Managers and Managers:
8 People

Department / Unit Heads:
21 People

The Company supports the development of employees' skills and abilities by providing resources and tools to enable them to plan and chart their career paths independently. Each year, employees undergo performance evaluations based on competency assessments and Key Performance Indicators (KPIs) to ensure confidence that they possess the necessary skills, knowledge, and abilities aligned with their roles, responsibilities, and objectives. This includes continuous improvement and development of work practices; as well as, the delivery and drive towards achieving successful outcomes as expected by the organization. The Company has a fundamental policy, criteria, and procedures for internal personnel selection, assessment, and promotion to facilitate their growth within the organization. This includes receiving job promotions to maintain and cultivate motivation for employees

to deliver excellent performance. Employees are made aware of the stability within their career paths and perceive avenues for growth or advancement to higher positions. When employees possess the requisite skills, knowledge, abilities, and qualifications for positions entailing increased responsibilities as per succession plans, they are nominated for promotions. The Company has a process linking compensation with skills, abilities, and performance evaluations. In promoting advancements in employee roles, it ensures alignment with the company's vision, mission, policies, and strategies.

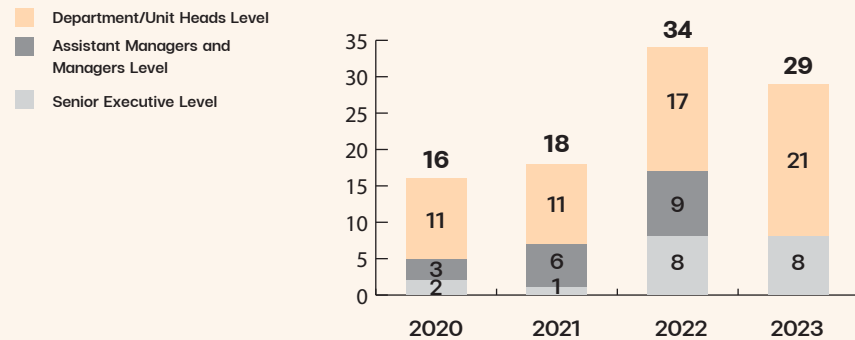


For the criteria in considering promotions and fostering advancement in employee roles, the company will proceed fairly and undergo screening by the Human Resources Management Committee. This committee comprises senior executives from each department and the Chief Executive Officer as the chairperson. The HR Committee has the following roles and responsibilities:



1. Collaborate in defining the vision, mission, and human resources strategy, including employee development plans.
2. Participate in establishing policies, criteria, and procedures for recruitment, selection, and nomination of individuals with suitable qualifications, knowledge, abilities, and relevant experience within the group of companies, aiming to efficiently and effectively achieve organizational objectives and create career advancement paths for employees, position promotions, and succession planning in each department / functional area.
3. Review and propose guidelines for structuring various compensation and benefits criteria appropriately aligned with job responsibilities and company performance.
4. Participate in evaluating employees' performance based on Key Performance Indicators (KPIs), Performance Indicators (PIs), and Competencies in each department / functional area, providing feedback for development and improvement, to serve as guidelines for employee development policies and efficient work practices according to the specified plans.
5. Serve as a strong organizational culture model.

Employees who have been promoted (people)



Development of an organizational Succession Plan for key positions

The Company has a policy to proactively prepare its workforce to prevent issues of new employee shortages in key positions, foster talent rotation, and consistently recruit new employees for existing positions. This is especially crucial for key positions where the organization needs to strategize succession planning clearly to proactively prepare the organization to select and develop the most suitable personnel for vacant key positions. This ensures that the organization is adequately equipped to support continuous and sustainable growth.

Integrated Personnel Development Results

From the integrated personnel development aimed at enhancing and enriching the skills, knowledge, and capabilities of employees to become “**competent and virtuous**” individuals who excel in their work, manage teams effectively, and contribute to the organization’s excellence, the Company has allocated budget for employee development in training programs totaling 122 courses. The average training hours per employee increased to 8.09 hours per year, representing a 44.20 percent increase from the year 2022. Details regarding personnel development initiatives are as follows:

Integrated Personnel Development Results	2020	2021	2022	2023
Budget for Training (Million Baht)	3.15	2.00	1.20	3.63
Number of Courses (Courses)	135	111	95	122
Total Training Hours (Hours)	12,754	4,805	6,843	9,471
Number of Employees Attending Training (People)	1,022	1,371	1,609	1,625
Average Training Hours (Hours per Person per Year)	13.23	5.01	5.61	8.09
Employees Participating in Knowledge Sharing (People)	4	14	12	13
Employees Promoted (People)	16	18	34	29



→ Read more about Succession Plan Policy



Safety, Occupational Health and Working Environment Management

Important Performance Results

The rate of accidents resulting in work stoppage exceeding 3 days for employees and contractors (per one million work hours)

Target in 2023 (Zero case)

Y 2023 0.72



Guidelines for Managing Workplace Safety, Occupational Health, and Environmental Conditions

The Company aims to become an organization free from accidents, thus placing importance on ensuring that all employees and stakeholders involved in operations have a safe working environment that complies strictly with relevant laws, regulations, requirements, and international standards. This is to ensure safety for employees, partners, contractors, subcontractors; as well as, the surrounding communities, all of whom are stakeholders with vested interests in the business activities. The Company establishes and registers a Safety, Occupational Health, and Environmental Committee, along with safety officers responsible for defining guidelines to prevent and reduce workplace accidents, promoting safety activities, and supervising employees to comply with company safety measures. This aims to enhance workplace safety by improving and optimizing work processes, promoting knowledge and understanding, and encouraging all employees to participate in safety management continuously. The management approach includes:



Designation of individuals responsible for Safety, Occupational Health, and Environmental matters in the workplace.



Evaluation of safety risks and formulation of preventive and corrective measures (Job Safety Analysis - JSA).



Establishment of safety goals and performance indicators.



Review and assessment of compliance with relevant laws and regulations.



Monitoring of safety statistics for employees and contractors to facilitate continuous improvement.



Organization of safety promotion activities.



Risk Assessment in Safety

“To achieve the goal of becoming an accident-free organization and instill confidence in workplace safety among employees, the Company regularly assesses the risks that may lead to workplace accidents. This involves identifying and evaluating the likelihood and severity of hazards that could occur. The purpose is to establish guidelines and develop plans to control and prevent risks in safety, occupational health, and environmental aspects that may arise. This covers activities performed by employees and contractors in office buildings, factories, power plants, substations, as well as ongoing construction projects. It has been observed that high-risk activities leading to workplace injuries include working in high-voltage electrical areas, working at heights, fire hazards, chemical spills, confined space work, and the operation of equipment, tools, and machinery. Therefore, the Company establishes measures to prevent and control hazards, focusing on eliminating risks and dangers in the workplace. It also prepares for various emergency situations and conducts inspections, assessments, and job analyses for safety. Additionally, it mandates obtaining permits for high-risk work activities.”

High Risk Activities

Working in high-voltage electrical areas

Preventive Measure and Mitigation

- Safety signage preparation (warning signs, prohibition signs, mandatory signs, informational signs, etc.) installed at power stations, wind turbine farms, and areas identified as high-risk within the power plant
- Inspection of equipment, tools, machinery, and environmental conditions to ensure safety

High Risk Activities

Working at heights

Preventive Measure and Mitigation

- Job hazard analysis and understanding derived from such analysis for high-altitude work
- Establishing protocols for inspecting equipment, tools, machinery, and various environmental conditions for safety before commencing work; as well as, the use of equipment. For example, installing temporary lifelines during construction of Solar Rooftop projects must cover work areas according to standards, and installing walkways to prevent walking over skylight panels

High Risk Activities

Working in environments with high temperatures and fire hazards, including the use of chemicals in production processes

Preventive Measure and Mitigation

- Inspecting readiness and usage of equipment and tools
- Inspecting safety equipment systems
- Conducting emergency response drills for fire incidents and chemical spills



High Risk Activities

Working in confined spaces

Preventive Measure and Mitigation

- Job Safety Analysis (JSA)
- Requesting permits for working in confined spaces
- Air quality and toxic gas monitoring
- Utilization of equipment for working in confined spaces
- Installing safety equipment and signage for maintenance operations at wind turbine towers

High Risk Activities

Working with equipment, tools, and machinery

Preventive Measure and Mitigation

- Training and awareness sessions on the proper use of equipment, tools, and machinery
- Inspecting the readiness for operation of equipment, tools, and machinery, such as temporary electrical systems in construction sites, must adhere to standards. This includes having circuit diagrams designed and certified by engineers posted at the site, along with warning signs and signs indicating responsible personnel's names and contact numbers. Daily inspections must be conducted. Additionally, grounding wires and automatic power cutoff systems must be installed. Fire extinguishers with a Fire rating of 6A20B, at least 1, and electrical wires connecting to temporary electrical panels must be insulated with two layers of insulation, etc.





Activities Promoting Safety

In order to enhance workplace safety for employees, contractors; as well as, all relevant stakeholders, the Company has implemented initiatives to promote a culture of safety through training and various activities. These initiatives include: 1) Conducting safety training sessions for new employees and contractors prior to commencing work. 2) Engaging in Safety Talks or Toolbox Talks with employees or contractors before starting new tasks or when there are changes in work locations. 3) Performing Site Safety Inspections, Safety Patrols, and Safety Audits to promptly identify and address any hazardous risks. 4) Conducting Workplace Monitoring to assess and improve the working environment in compliance with legal standards. 5) Implementing 5S activities in factory and power plant areas to maintain cleanliness and organization. 6) Providing Kiken Yoshi Training (KYT), which involves analyzing or predicting potential risks in tasks and devising methods to control and prevent those risks. The KYT approach aims to instill safety consciousness in workers, encouraging them to perform tasks with caution. These measures are undertaken daily in construction projects to raise awareness and emphasize the importance of consistent workplace safety practices.

Safety Training



Pre-Work Safety Training for Employees and Contractors or “Safety Talk”



The 5S Activities in the Workplace Area



Site Safety Inspection



Workplace Monitoring



KYT Activities



Operational Results of Safety, Occupational Health, and Environmental Management



The incidence rate of work-related accidents resulting in work stoppage exceeding 3 days for employees and contractors is

0.72

(case per million work hour)



The incidence rate of severe injuries and fatalities from work-related incidents for employees and contractors is

zero.

The incidence rate of work-related illnesses and diseases is zero.
(case per million work hour)

The Lost Time Injury Frequency Rate (LTIFR) exceeding 3 days decreased to 0.72, a 49.90 percent reduction from the previous year of 2022. This improvement follows 28 incidents of injuries and property damage, which still fall short of the organization’s goal to be accident-free. The Company has conducted investigations and analyzed the causes of these accidents to establish preventive measures and solutions to prevent recurrence. Additionally, efforts have been made to enhance safety operations effectively.

The Results of Safety Management

2020

2021

2022

2023

The rate of accidents resulting in work stoppage exceeding 3 days
(case per million work hour)

-

-

1.44

0.72

The occurrence of accidents leading to work stoppage exceeding 3 days (people)

0

0

4

2

Employee (people)

0

0

4

1

Contractor (people)

0

0

0

1

The severe injuries and fatalities resulting from work-related incidents (people)

0

0

0

0

Employee (people)

0

0

0

0

Contractor (people)

0

0

0

0

The rate of sickness and disease from work
(case per million work hour)

0

0

0

0





Customer Relationship Management

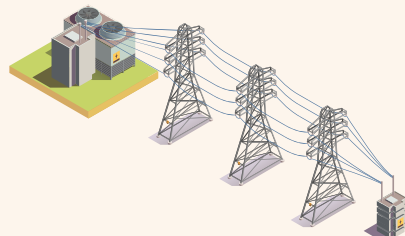
Important Performance Results

Customer satisfaction with products and services

Target in 2023
(≥ 90.00%)

Y 2023

89.16



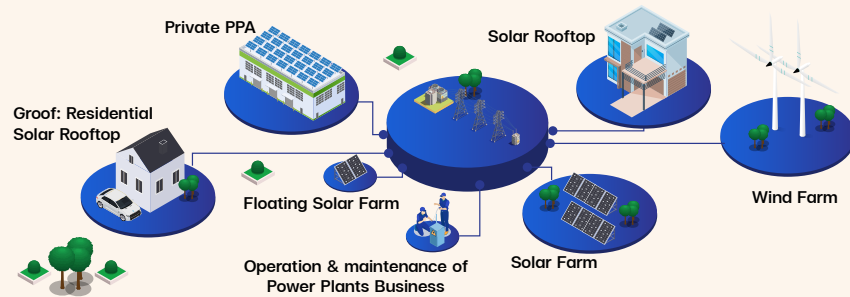
Guidelines for Managing Customer Relationships

The Company firmly believes that **“energy is a fundamental right of every individual deserving access.”** Therefore, we have developed a comprehensive One Stop Service energy business, starting from the production of high-voltage electrical equipment, engineering and construction, renewable energy power plants, and maintenance services, including innovations and digital energy services. With a commitment to making renewable energy, particularly environmentally friendly energy, easily accessible and efficiently meeting the electricity needs of both industrial and household sectors. Renewable energy is a key factor in driving the goal of reducing greenhouse gas emissions, leading to the creation of a low-carbon society capable of sustainably reducing environmental impact. The Company focuses on enhancing product quality, improving production efficiency, and responsibly distributing and providing services. We place importance on managing relationships with current customers and building new customer bases through the development of modern, environmentally-friendly technologies and innovations to foster sustainable infrastructure growth. We collaborate with customers as renewable energy partners, delivering and addressing the needs of all customer groups. The Company’s aim is not only to create satisfaction but also to contribute to improving the quality of life for users. The Company collaborates with specific and diverse partners, both domestically and internationally, to establish a resilient electricity network, mitigate issues, and eliminate barriers to accessing renewable energy. This collaboration aims to ensure universal access to renewable energy for everyone and all business sectors; thereby, contributing to improving quality of life and creating a better environment together. The Company’s approach includes developing products and services, managing relationships, and providing a comprehensive customer experience that caters to all business groups.



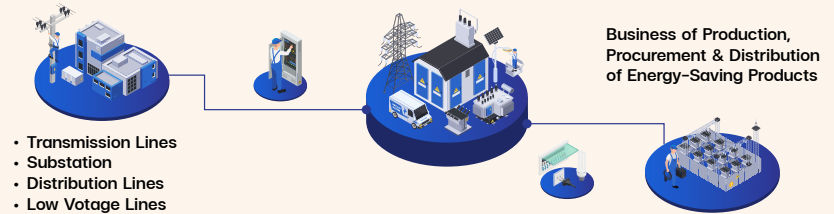


Renewable Energy Business



- **Developing and ensuring stability in electricity production from renewable energy sources** through new production technologies and innovations
- **Enhancing efficiency in operation and maintenance services** to meet customers' needs and achieve maximum satisfaction from service delivery
- **Continuously expanding the portfolio of renewable energy power plants both domestically and internationally** to mitigate clean energy access issues and enable universal access for all customer groups. This expansion also contributes to pushing for greenhouse gas emission reduction, aiming for a Net Zero outcome.

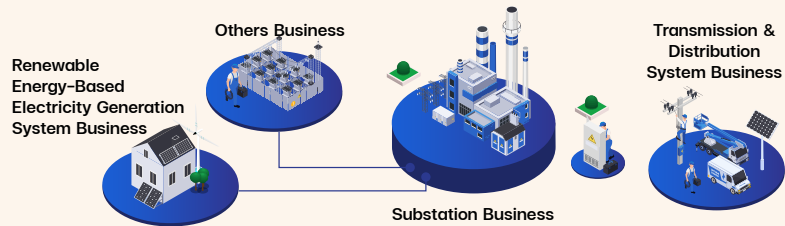
High-Voltage Equipment Business



- **Certifying product quality according to safety standards**
- **Rapidly responding to customer needs** to customer needs to generate satisfaction and provide a positive customer experience
- **Supporting and participating in various customer activities**
- **Collaborating to assist customers in finding new products**, conducting trials to address electrical system issues, and increasing trading opportunities.

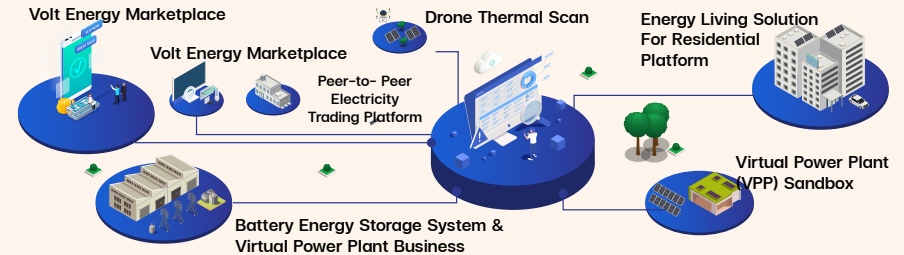


Engineering and Turnkey Business



- **Providing engineering and construction services of high quality and safety standards**, while minimizing project duration and adhering to contract terms and conditions
- **Developing the skills of the team** to adapt to customers and projects, effectively meeting customer needs and expectations, providing professional advice, and promptly delivering information both before and after service
- **Attending to and accessing customers of all groups** by incorporating both the advantages and disadvantages of customer feedback as key focal points in continuous service improvement
- **Applying new technologies and innovations** in workflow and operations processes to foster sustainable growth
- **Expanding the business of providing other types of electrical engineering services** to offer customers comprehensive service

Energy Ecosystem Platform and Innovations Business



- **Developing energy capabilities** to enhance efficiency in all energy-related activities, providing current service users with improved and expanded options by elevating the quality, stability, and sustainability of associated infrastructure and services
- **Venturing into and expanding markets** by exploring new perspectives, broadening access, and recognizing untapped opportunities to present beneficial solutions and services to society
- **Driving innovation** by fostering new inventions in the energy industry to unlock traditional constraints, promote creativity, and develop technologies that will reshape the future of energy and drive the transition towards sustainable environmental systems



Enhancing Efficiency in Operation and Maintenance Services

The Company operates in the field of operating and maintenance services to advance its full-cycle renewable energy business, leveraging our expertise and continuously enhancing service delivery. We address technical issues, service-related challenges, and other encountered problems to improve the monitoring, inspection, and surveillance systems. We utilize tools like Emerge (Energy Management for Enterprise and Retail by Gunkul Engineering) for monitoring and tracking performance. Additionally, we swiftly resolve issues related to solar energy production to enhance efficiency in delivering electricity to customers. This enables customers to continually monitor system operations and the benefits obtained. Currently, the Company has earned the trust of external customers and various business sectors, including industrial and household groups, as a provider of operational and maintenance services. This trust has been established following the completion of solar power plant construction processes. The Company oversees the operational performance and maintenance of electricity distribution for solar power plants installed on rooftops and on the ground. Presently, the Company provides maintenance services for a total capacity of 302 megawatts from a total of 804 projects, spanning across 51 provinces.

Full-Cycle Service Provision

In order to alleviate the challenges of accessing clean energy and enable customers of all groups to access clean energy universally, and to contribute to the reduction of greenhouse gas emissions towards a low-carbon society, the Company has developed a business of installing solar roof systems. This assists customers ranging from residential households to SME businesses in saving energy costs through the Company's standard expertise in electrical engineering. The Company drives social and environmental sustainability with a dedicated team of experts who are committed to serving all customer groups, ensuring that rooftop spaces are not left unused. Customers can trust in long-term clean energy reliability and value with the Company's One-Stop-Service approach. In addition to providing EPC GRoof installation services, the Company also offers Private Power Purchase Agreements (PPAs) as an alternative for medium to large-sized businesses. This option allows customers to access clean energy quickly without worrying about upfront construction costs. We also provide the benefit of managing cash flow by paying a fixed electricity rate throughout the GRoof contract term. The Company also provides tailored PPA designs that align with the renewable energy objectives and diverse financial goals of customers. Additionally, we provide maintenance and support services to ensure the optimal performance of the PPA system throughout the contract duration.

Currently, the Company has installed rooftop solar systems for over 500 residential homes and more than 700 commercial buildings nationwide, spanning various industries such as CJ more, Origin Property, Pruksha, Jaymart, and others.



Installation Warranty

We offer a 2-year warranty on installations conducted to international standards, along with 1 year of maintenance service (once per year).



Comprehensive Team Support

We provide consultation by experts along with an efficient team of engineers who design systems and oversee installations effectively



Worthwhile, Comprehensive, Hassle-Free (Permit Documentation)

We assist in preparing documentation and obtaining permits for the installation of solar rooftop systems with relevant authorities.



Roofseal Quality - No More Worries About Leaks

GRoof chooses TOA's Roofseal to prevent leaks effectively, with its seamless waterproofing capable of repelling 100% of water ingress.



Certification of Product Quality According to Safety Standards

The Company manufactures and distributes products to both government electricity agencies and private sector organizations nationwide, emphasizing the production and development of high-quality and safe products according to standards. The Company’s high-voltage electrical equipment manufacturing process has been certified with ISO 9001:2015 for quality management systems, ISO 14001:2015 for environmental management systems, ISO/IEC 17025:2017 for testing and calibration laboratory competence, and several products have been registered with the Ministry of Industry, having met standards certified by testing institutions both domestically and internationally. Additionally, the Company has obtained licenses for Thai Industrial Standards (TIS), including certification for products manufactured in Thailand (Made in Thailand: MiT) from the Federation of Thai Industries. Furthermore, the Company’s products have been registered and certified by the Provincial Electricity Authority (PEA) Product Acceptance (PPA) program.



Online Market Development



Godungfaifaa is an online marketplace that consolidates a comprehensive range of solar cell system equipment sourced directly from leading global manufacturers. We address customer needs in terms of pricing and reliability by gathering buyers and sellers on a single platform, facilitating convenience for both individual buyers and business clients. Additionally, the Company continually enhances its service model to provide complete solutions and meet the evolving needs of its customers.



Volt Energy Marketplace connects over 450 quality contractors in the clean energy sector nationwide through an online platform, catering to both residential customers and businesses seeking solar rooftop and EV charger installation services. This platform elevates accessibility from offline to online. Moreover, Volt’s platform services extend beyond just customers, ensuring convenience for installers (Installer / EPC contractor) as well. The comprehensive services offered by the Volt platform include:



Value Proposition

Calculating the electricity consumption of customers and recommending a suitable solar rooftop system for preliminary consideration



Installation Warranty

Comparing service providers in the area in every detail, such as pricing, product quality, and warranty terms



Coordination

Coordinating as an intermediary in payment



Monitoring

servicing to check the quality of installation.



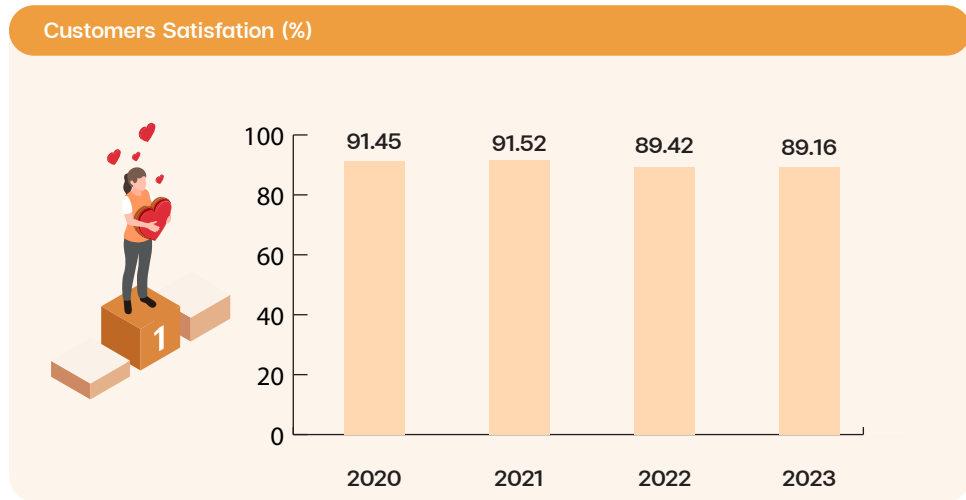


Operational Results of Relationship Management and Positive Customer Experiences

Based on the guidelines for managing relationships and creating positive experiences for customers across all business segments, the Company conducted a survey to gauge customer satisfaction with products and services. The aim was to utilize the survey results and address any issues raised by customers to establish guidelines for improvement and further development. This includes enhancing the quality and standards of products and services to better meet the needs and expectations of all customer segments. The survey findings indicated that customers were satisfied with the products and services at a rate of 89.16 percent, a decrease of 0.26 percent from previous surveys. This decrease was noted as the Company recognized the importance of ensuring customer satisfaction throughout every stage, from pre-sales to post-sales service. Additionally, the Company acknowledged the diversity of its customer base, which spans various industries and households. Therefore, the Company has shifted its focus towards customer-centricity and placed importance on customer feedback. We expanded the scope of satisfaction surveys and gathered customer feedback across all processes and customer segments. This allows for the evaluation of product and service quality based on received feedback, enabling efficient rectification and development. The survey results are segmented to analyze and address issues accurately, as follows:

Survey Topic Regarding Customer Satisfaction with Products and Services	Score (%)
Promptness in providing quotations	86.97
Utilization of product and service information	90.87
Promptness in addressing issues	88.87
Convenience in communication	89.59
After-sales service	90.17
On-time delivery of products and services	86.76
Quality of packaging and transportation	87.58
Accuracy of products and services	90.35
Overall satisfaction with the company	91.24
Average Score	89.16

Furthermore, with a dedication to supporting and responding to customer needs responsibly towards society and the environment, adhering to ethical principles in business operations, and fostering strong relationships between the Company and customers within the EGCO Group, Gunkul Power Development Co., Ltd. has been honored with the Best Practice Company award and awarded the Best Practice Certificate through evaluation by The EGCO Group’s Supply Chain Auditing Process 2023. Additionally, Gunkul Utility & Energy Co., Ltd. has also received a Certificate of Participation for its enduring participation in joint development efforts during the EGCO Group’s Supplier Day 2023 event.





Community and Social Responsibility

Important Performance Results



Guidelines for Responsibility towards the Community and Society

The sustainable growth of the Company’s business is grounded in a commitment to community and social responsibility, aligned with the covenant of **‘not only the energy, we care’**. We promote community cohesion by extending mutual aid, embodying the role of **good neighbors**. This involves contributing to the development and fortification of communities, fostering improved quality of life for community members through active participation in assessing their needs and aspirations. We aim to foster understanding and collaborative development within communities, working hand in hand with community organizations and educational institutions to consistently organize beneficial activities. This includes providing financial support for these activities and encouraging our employees to actively engage in community-led initiatives. Additionally, the Company places importance on facilitating the exchange and transfer of knowledge and experiences among individuals, organizations, communities, and stakeholders. Furthermore, indirect impacts such as those resulting from climate change continue to affect people’s livelihoods in society. This remains a significant factor driving the Company’s commitment to developing accessible renewable energy solutions to mitigate disparities and enhance quality of life for individuals in society. The Company believes that access to electricity and clean energy is a fundamental right that everyone should have equal access to. Towards this end, the Company has guidelines for supporting, promoting, and developing society in three aspects: creating a learning community, promoting a high quality of life, and supporting activities and fostering community involvement.”



Creating a learning community



Promoting a high quality of life



Supporting activities and fostering community involvement



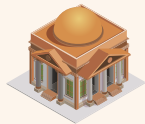
Creating a Learning Community

Visitors explored the alternative energy power plant learning center, totaling

11 delegations with 572 peoples:



Educational institutions:
3 delegations



Public and private sector organizations:
2 delegations



Local communities and organizations:
6 delegations

The Company operates a full-cycle renewable energy business to drive clean energy transformation into a fundamental right accessible to all members of society. We aim to support and promote every organization and sector; as well as, individuals, to recognize their responsibility towards society and drive the country towards a low-carbon economy and society collectively. Therefore, emphasis is placed on creating a learning society to advance knowledge in fostering awareness and promoting social responsibility through communication and sharing of knowledge and experiences regarding the direction and importance of clean energy. This is a crucial factor in driving society towards reducing greenhouse gas emissions and mitigating the impacts of climate change. Together, we aim to develop resilient infrastructure and sustainably improve the quality of life for people in society.

Sharing Knowledge and Experiences in Renewable Energy Business Development

Participating as a speaker under the topic “Green Energy: Economical Impact & Forward” at the KU Change Agent Readiness Executive Program, Batch 1, Faculty of Business Administration, Kasetsart University, aims to disseminate beneficial information to society through sharing insights and the importance of choosing energy sources that not only are clean but also have minimal environmental impact. Transitioning to an era where the renewable energy industry grows significantly will positively impact the country’s economy, evident in terms of GDP and increased employment rates. This can be seen in various countries worldwide, including the current energy situation in Thailand and the global investment trend in clean energy innovation. There is an opportunity for growth as every individual can become an energy producer, with key factors being collaborative efforts to facilitate Energy Crowdsourcing.

Sharing Knowledge and Experiences in Wind Energy Business Development

As a company with extensive experience in the wind energy sector, including investments in solar farms within Vietnam, we were honored to participate as one of the Thai delegates at the ASEAN Wind Energy 2023 (AWE2023) conference. The conference focused on onshore and offshore wind energy under the theme “Experience Sharing in Unlocking and Developing Full Potential of Wind Power in Vietnam.” Our participation aimed to share experiences and perspectives on wind energy business development; as well as, key factors for unlocking the maximum potential of investments and engineering expertise in this dimension.

Promoting Alternative Energy Power Plant Learning Centers

The Company provides opportunities for local organizations, both public and private educational institutions, to visit the power plant and receive knowledge about renewable energy, including the principles of operation in electricity production from wind and solar energy. This initiative aims to foster understanding and awareness in renewable energy development, enabling individuals to further apply this knowledge in their daily lives.



GUNKUL SPECTRUM ENERGY CLASSROOM

With the firm belief that **“energy is a fundamental right for all humanity to access,”** the Company actively engages in driving clean and sustainable energy technologies through its online social media platform, GUNKUL SPECTRUM on Facebook. This platform serves as a channel for communication and connection to clean energy for people in society. Driving the transition to clean energy is not solely the responsibility of the government; every energy user plays a crucial role in fostering change and driving the country towards sustainability. As the Company is committed to being a leader in energy innovation, the content shared on the GUNKUL SPECTRUM Facebook page goes beyond providing knowledge about clean energy technologies. It also emphasizes the importance of creating positive societal changes and shaping a sustainable future together. With **the objective of raising awareness about Democratization of Energy,** the Company aims to educate society on the equal access and ownership of clean energy. We emphasize that every individual plays a crucial role in driving the country towards sustainability. Additionally, we **provide knowledge about opportunities and markets in clean energy** technology. As the Company focuses on innovation in the renewable energy sector, we have established a brand as an energy innovation unit and communicates operational guidelines to society. This communication strategy includes engaging content not only for followers on the GUNKUL SPECTRUM Facebook page, but also for stakeholders such as customers, partners, business affiliates; as well as, students and scholars through content creation in various areas, including:



Educational

- Providing valuable in-depth information about Smart Energy, sustainable practices, and new technologies
- Promoting informed decision-making through knowledge acquisition



Brand Movement

- Publicizing company news and updates
- Demonstrating collaboration with business partners, showcasing achievements, awards, and community involvement



Executive Interviews

- Providing in-depth insights into driving innovation and sustainability within the Company through the perspectives of our executives



Technology Updates

- Providing news and information on clean energy technology



Sustainability Updates

- Providing news and information on sustainability initiatives
- Creating awareness of progress and dedication towards building a sustainable future together





Promoting Quality of Life

The Company actively participates in the development and enhancement of the quality of life within communities by supporting various projects, including those aimed at promoting health, education, and overall well-being.



Health Promotion Sector

The Company supports the **‘One HomePro Fun Walk for Elderly Persons with Disabilities’** event in collaboration with our business partner, Home Product Center Public Company Limited, to demonstrate collective efforts in conducting business with social responsibility. This initiative includes co-funding the construction of a national-level geriatric medicine center in Samut Sakhon province through the Siriraj Foundation at Siriraj Hospital.



Educational Sector

The **‘PetchaGunkul’** Scholarship has been continuously awarded to Wat Noi Nopakhun School to support the development of education quality and assist students lacking financial resources, providing them with opportunities for higher education. This initiative aims to enhance and strengthen the community by fostering youth development. Supporting youth education is fundamental in building a resilient society sustainably. In the academic year 2023, Wat Noi Nopakhun School has allocated scholarships to 55 students.”



Quality of Life and Well-being Sector

Budget support has been provided for the installation of Solar Rooftop at the **‘Special Education Center, Prachuap Khiri Khan Province, Hua Hin Service Unit,’** catering to children with multiple disabilities, intellectual impairments, and physical disabilities. The installation quantity amounts to 21.8 kWp, aimed at promoting a better quality of life for these children. This initiative also supports the use of electricity from clean energy sources to reduce expenses for the educational center.



Supporting Activities and Community Engagement

The budget for community and social support is **3.75 million Baht.**



40 schools
have received support



7 communities
have been supported



29 villages
and local organizations
have been supported

The communities, whether they are surrounding wind power plants, solar power plants, or office and factory complexes, are considered as good neighbors of the Company. The Company values and continuously participates in community activities, supports community development, and enhances the quality of community products. This mission is crucial for enabling community members to improve their quality of life and become self-reliant. Therefore, the Company consistently prioritizes and engages in these activities. In the year 2023, there were various aspects of community care and participation in community activities, as follows:



Economic Development

- Supported the kitchen equipment set for the community enterprise group of Ban Sap Samboon, Huay Bong Sub-district, to be used in processing community products
- Supported educational field trips for OTOP communities in the Thai Sama Khee village led by community leaders of Don Mueang Sub-district
- Supported educational field trips for community leaders of Huay Bong Sub-district in Kanchanaburi and Phetchaburi provinces
- Supported a study tour program for the members of the local administration organization in Don Mueang Sub-district, Rayong and Chonburi provinces



Public Health

- Supported consumer goods for bedridden patients and the elderly in the community of Nong Chum Phon Subdistrict



Education and Sports

- Supported scholarships for students who have excellent academic performance but lack financial resources in community schools
- Supported activities and providing educational scholarships for schools and communities on National Children's Day
- Provided educational equipment support to schools in the community
- Supported sports competitions at community schools
- Supported sports equipment for anti-drug sports competitions at Huay Bong Games
- Supported budgets for organizing sports competitions to promote community health
- Supported the music band instruments at Ban Sila Ruaamsamakhi School to promote music development activities for students in the school



Environmental

- Supported for landscape improvement in the community of the Nong Chumphon Project
- Supported for road repairs in areas flooded around the NK Power Solar Farm Community, Po Plai



Cultural and Traditional

- Supported for activities to preserve Songkran cultural traditions, including the pouring of scented water on elderly members within the community
- Supported for activities such as Kathin Samakkhi and Pha Pa Samakkhi ceremony for the restoration of temples within the community
- Supported for merit-making activities involving the Pha Pa Samakkhi ceremony for educational purposes
- Supported for the Bon Bang Fai (rocket festival) ceremony in the Tambon Tak Daet community
- Supported for activities aimed at conserving Thai culture at the local level



Social and Public Welfare

- Supported for philanthropic activities benefiting the Thai Red Cross
- Supported for providing drinking water and food to public service points within the community during Songkran festival
- Supported for assisting families affected by disasters, specifically those in the Sila Ruam Samakki Village
- Supported Thai silk garments for the female group in Huay Bong Subdistrict

Operational Results related to Community and Social Responsibility

With a commitment to promoting community engagement by fostering friendly relations and mutual assistance as **'good neighbors'**, the Company has allocated funds to support community and social development initiatives aimed at strengthening community resilience and promoting a good quality of life for community members. This is achieved through surveys of community needs, expectations, and satisfaction to enhance mutual understanding. The details of the results of community and social responsibility initiatives are as follows:

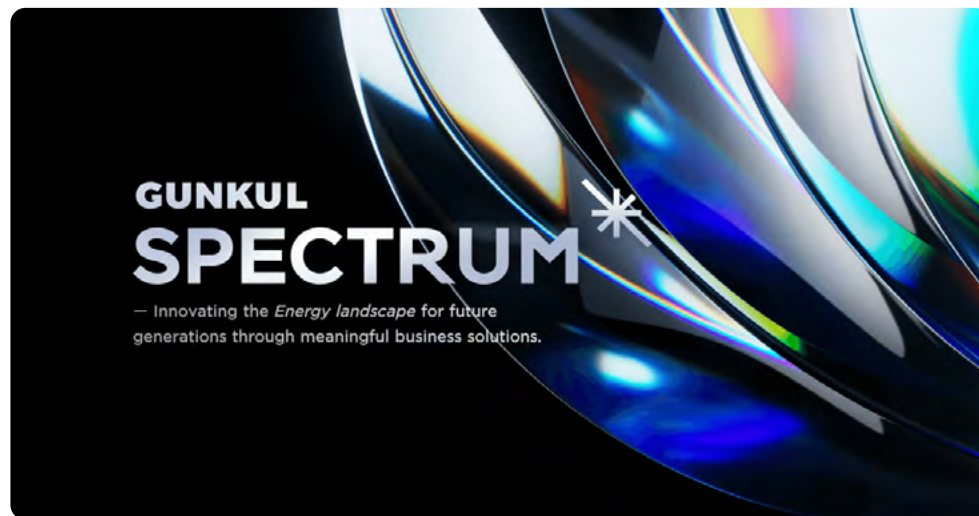
Community and Social Responsibility	2020	2021	2022	2023
Number of individuals who visited the renewable energy learning center (people)	161	30	148	572
Budget allocated for community and social support (million Baht)	26.60	6.50	5.64	3.75
Overall community satisfaction and engagement (percentage)	75.00	76.39	74.94	83.66
Significant community-related complaints (cases)	None	None	None	None





Business Innovation for Social Creation

Amidst the rapid changes in directions and global megatrends, including the impacts of climate change and sudden digital transformations, which are increasingly severe day by day, the adaptation and development of businesses to respond to and cope with these changes and challenges are crucial. Particularly in the current situation where technology and innovation are significant factors in conducting business with social responsibility, the Company has established innovation units such as GUNKUL SPECTRUM to prepare for expanding business and developing products that meet the demands of the new era consumers, with a goal set to become Thailand’s First Energy Trendsetter, this initiative has been in operation for over 4 years. “GUNKUL SPECTRUM’s role is to study and create digital energy products to meet the basic needs of people in society, enabling them to choose and access stable energy sources at affordable prices under the concept ‘Energy is a Human Right.’ Energy is considered a fundamental right of all human beings, and the organization promotes innovation in transitioning from traditional energy sources to using energy in new ways, aiming to deliver a better quality of life to people in society.”



Guidelines for Developing Innovative Business for Societal Creation

The Company aims to develop technology and innovation to support modern, sustainable, stable, and affordable energy for consumers. This is achieved through fostering a creative working environment where all employees are encouraged to think critically, speak up, and propose novel ideas. We believe in actively listening to understand needs, problems, beliefs, and attitudes in order to address received issues and expectations for improvement and development. Additionally, we support and promote training seminars, collaborative research with research institutions, and monitoring of key business trends to apply acquired knowledge for enhancing and optimizing work processes. Furthermore, the Company continuously improves and develops its operations to foster business innovation and advancement by fostering participation and cooperation with partners, collaborators; as well as, customers in identifying strengths and weaknesses in various aspects for joint development. Company innovation does not necessarily have to be groundbreaking, but it should be continuously evolving and able to address product and service issues; as well as, beneficial work processes for stakeholders and capable of contributing to business sustainability. This business development aims to support modern, sustainable, stable, and affordable energy for consumers, enabling the business to grow in harmony with society sustainably. Therefore, the Company is developing Smart Energy innovations to advance energy technology, bringing clean energy into households, reducing disparities and limitations in various dimensions so that everyone can access energy sustainably in their daily lives. The Company has a framework to drive innovation in creating a clean energy society as follows:



Digital Platform

Applying technology to manage the electricity grid, transforming it into a fully-fledged Digital Grid, where everything is seamlessly integrated onto the most user-friendly Digital Platform



New Solution

Developing new methods to enhance quality and address electricity usage issues in various dimensions, aiming to improve efficiency and eliminate obstacles in consumption



Energy as a Service

Creating a new energy business model to enable users to access services more efficiently and quickly



Developing Microgrid Systems, Energy Storage Systems, and Associated Smart Electrical Devices Project

Origins and Principles of Operation

The Company engages in designing, sourcing, and providing installation services for microgrid systems, energy storage systems, and related smart electrical equipment for development projects in small-scale Microgrid networks in Mae Sariang District, Mae Hong Son Province, under the Provincial Electricity Authority (PEA). This project is considered a milestone in the Company's renewable energy business, particularly in managing alternative energy resources effectively. Moreover, it serves as Thailand's pioneering project in the realm of the Power Generation Department of the Electricity Generating Authority of Thailand (EGAT). Furthermore, the Company has donated a microgrid system to Naresuan University to serve as a learning and personnel development resource for preparing for future smart grid initiatives. This donation is part of the Company's ongoing commitment outlined in Pillar 3 of its short-term strategic plan. Microgrid systems have a critical characteristic of being able to sustain power supply to critical loads and essential loads during emergencies. Therefore, this technology is well-suited for users with high importance electricity consumption needs.

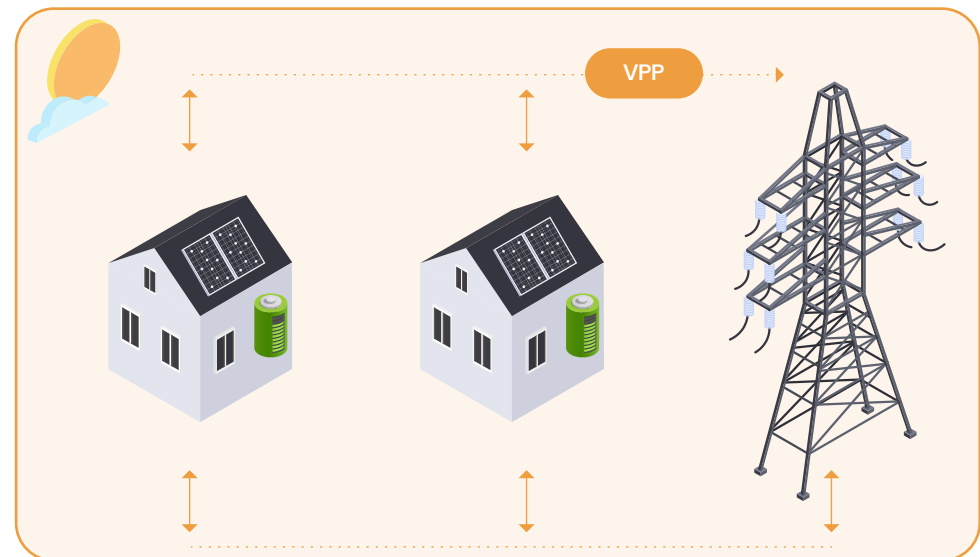
Benefits from the Project Development

- Reducing cost in energy procurement, including alleviating Grid Congestion & Expansion and reducing Transmission Losses in the overall main electricity grid network.
- Supporting the country's Power Development Plan (PDP) to achieve goals in accommodating energy crisis contingencies, ensuring regional energy security, and creating a balanced electricity system across regions.

Virtual Power Plant Platform Project

Origins and Principles of Operation

Due to the Company's recognition of the potential of a customer group capable of generating electricity from clean energy sources in significant quantities, and observing that there is some excess electricity production compared to user demand, simultaneously discovering another group of customers with a growing demand for electricity produced from clean and cost-effective energy sources, coupled with compliance with policy promoting the use of renewable energy and the target of reducing greenhouse gas emissions in Thailand's energy sector, the Company has applied to participate in the ERC Sandbox Phase 2 program. This is to demonstrate the Company's commitment to actively contribute to Thailand's sustainable transition from conventional energy industries to clean energy usage, thereby driving continuous energy transition, by incorporating digital technologies to showcase leadership in the energy production industry's transition to digitalization, the Company has conceived a strategy to develop a platform that integrates business models to enhance long-term management efficiency and provide benefits to all stakeholders. This includes electricity producers, consumers, and regulatory bodies responsible for managing the power grid system, focusing on cost-effectiveness and management efficiency without compromising the stability of the network system.





Benefits from the Project Development

The development of a prototype platform for managing electricity users and those capable of producing electricity from clean energy sources will lead to the dissemination of the prototype platform, generating new knowledge for the public to expand benefits widely. Additionally, it can extract lessons learned from project implementation as policy recommendations and relevant regulations, serving as a foundation for further development and expansion into full-fledged virtual power plants and smart grids. Moreover, it supports free competition in the energy sector, promoting and driving the country towards achieving targets for increasing the share of renewable energy in the energy system. It also supports the achievement of carbon neutrality and net-zero emissions goals for the country.



Study Project of the Production and Distribution of Electricity Using Wind Energy Combined with Energy Storage Systems to Enhance Electricity Quality and Increase Stability in a distribution System with a Capacity of 22,000 Volts

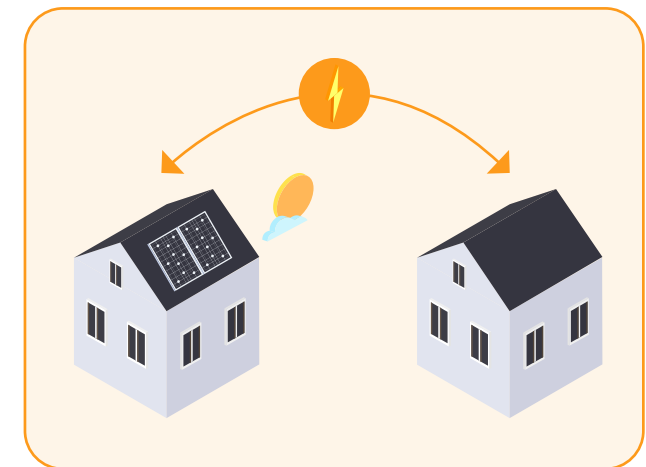
Origins and Principles of Operation

Currently, wind energy production systems are playing an increasingly significant role in electricity distribution systems. However, it has been found that wind energy production systems still face limitations in terms of stability, primarily due to the intermittent nature of energy sources, resulting in electricity production that does not always meet customer demand. These issues may directly impact electricity users, such as power outages or poor electricity quality, leading to uncertain backup electricity production rates and the likelihood of increased reliance on alternative energy sources in the future, particularly solar and wind energy, in accordance with the Alternative Energy Development Plan (AEDP) to achieve net-zero emissions targets. Therefore, it is essential to implement energy storage systems to efficiently manage energy, in order to reduce fluctuations in electricity production from uncontrollable wind and solar energy sources, and improve overall energy management. Including laying the groundwork for the development towards a Smart Grid network that will materialize in the near future as outlined in Thailand's Smart Grid development master plan, the Company is interested in studying and addressing the aforementioned issues. The Company's approach involves integrating energy storage systems with wind power generation systems owned jointly by the Company and utilizing clear step-by-step algorithms to manage the energy storage system. Wind forecast data, load forecast data, and other relevant information will be utilized as factors in developing these algorithms to maximize the efficiency of the energy storage system and mitigate the impacts of power quality and instability from wind power generation systems.

Benefits from the Project Development

- Mitigating the impacts of electricity quality issues and enhancing stability in electricity distribution from wind power generation to end-users.
- Advancing research and development in energy storage systems and management processes to serve as prototypes for energy storage and management systems.
- Advancing research and development on positive impacts, negative impacts, limitations, as well as regulations and regulations related to selling electricity into the distribution system through energy storage systems.
- Reducing equipment degradation and increasing the efficiency of electricity generation from wind power generation systems.

Peer-to-Peer (P2P) energy trading platform project





Origins and Principles of Operation

With the changing landscape of the industry, it's evident that current advancements in renewable energy technologies have reduced the costs associated with harnessing alternative energy sources. This has resulted in increased accessibility to renewable energy for the general public, consequently shifting the roles from energy consumers to energy producers. As a result, there's been a development of Peer-to-Peer (P2P) electricity trading platforms to accommodate future business needs. P2P electricity trading is a business model that utilizes platforms to connect consumers and producers, allowing for direct electricity transactions without the need for intermediaries. These platforms enable distributed energy resource providers to buy and sell electricity based on mutually agreed terms.

Benefits from the Project Development

- Studying the current market conditions and limitations to utilize as data and case studies for formulating policies in electricity trading freely.
- Studying peer-to-peer electricity markets from technological aspects and practical implementation by surveying user satisfaction.
- Serving as a prototype of peer-to-peer electricity markets for academic study, development, and advancement.

Development of Software Systems and Installation of a Demand Response Management System for Testing Electricity Production Innovations in Thailand Project

Origins and Principles of Operation

Demand Response (DR) refers to the modification of electricity usage patterns by the industrial sector in response to changes in electricity prices that fluctuate according to the marginal cost of electricity production or to meet special incentive payments. The objective is to incentivize reduced electricity consumption during periods of high production costs or during times of system reliability risks; as well as, to align with Thailand's Smart Grid development plan for the medium term (2022-2031). The development of this medium-term Smart Grid development plan emphasizes the importance of collaboration among relevant governmental and private sector entities to enhance Thailand's Smart Grid system. The following are the main topics or pillars, aligned with the master plan and short-term implementation plan, including the rapidly changing technological landscape. These consist of five main pillars: Demand Response & Energy Management System (DR & EMS), Renewable Energy Forecasting (RE Forecast), Microgrid & Prosumer Systems, Energy Storage Systems, and Electric Vehicle Integration (EV Integration).

Quality Control Circle (QCC) Improvement Activities Project

Origins and Principles of Operation

Apart from business innovation, the Company also emphasizes the development of work innovation to improve and enhance the quality of work and production processes in contributing to societal development and addressing environmental issues. In the year 2023, the Company organized Quality Control Circle (QCC) improvement activities to foster participatory work in developing and improving various aspects of job quality within the high-voltage electrical equipment manufacturing factory. There were a total of 43 topics, categorized as follows:

1. Presenting approaches to streamline operational processes: 9 topics
2. Presenting approaches to reduce work time: 12 topics
3. Presenting approaches to enhance work efficiency: 22 topics

Benefits from the Project Development

- Fostering employee participation and knowledge enhancement to cultivate understanding of quality management systems, enabling employees to leverage and apply them for problem-solving or performance enhancement.
- Enhancing teamwork and coordination to fortify organizational cohesion.
- Streamlining processes and reducing operational time; thereby, enhancing operational efficiency and productivity.
- Developing quality products and services to ensure customer satisfaction.
- Minimizing waste from production processes, leading to reduced environmental impact and promoting a better quality of life for society.
- Decreasing production costs and expenses, with a significant reduction of up to 914,558 Baht in production costs in the past fiscal year 2023, This reduction was achieved through the implementation of Quality Control Circle (QCC) activities, with quantifiable results obtained from continuous operational efforts, as follows:

Year	Number of issues	Quantitative Results
2019	46	Expenses reduced by approximately 2,092,083 Baht
2020	47	Expenses reduced by approximately 3,217,343 Baht
2021	22	Expenses reduced by approximately 1,001,200 Baht
2022	44	Expenses reduced by approximately 846,102 Baht
2023	43	Expenses reduced by approximately 914,558 Baht



For a Sustainable Environment

Driving the transition towards a low-carbon economy and addressing environmental issues sustainably through “clean energy” to create balance for the world.





Environmental Responsibility












The crisis arising from global warming and climate change is increasingly impacting the quality of life for people in society, in order to demonstrate a commitment to conducting business while concurrently caring for and managing the environment to enhance the quality of life for individuals in society, besides expanding investments in renewable energy businesses such as solar and wind power, which play a significant role in mitigating environmental impacts, the Company has formulated and announced environment and climate change management policy. This policy is reviewed annually to ensure its effectiveness as guiding principles for managements and employees at all levels of the Company in conducting business while caring for and managing the environment. Moreover, it fosters engagement with all stakeholders to strengthen the potential for achieving environmental management and climate change management goals collaboratively and continuously. In addition, the Company has an environmental compliance management system in place, preparedness, and implements proactive action plans to ensure compliance with relevant laws, regulations, directives, policies, and environmental requirements. We emphasize the importance of controlling, preventing, and mitigating environmental impacts through adherence to international standards. The renewable energy business group, comprising solar power plants, wind power plants, and the high-voltage electrical equipment business group, involved in manufacturing, procurement, and distribution of electrical system equipment, energy-efficient products, and alternative energy, has established the organization's Environmental Management System (ISO 14001:2015). The Company has also outlined measures for environmental impact prevention and mitigation as follows:



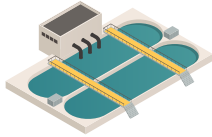








[→ Read more about Environment And Climate Change Management Policy](#)



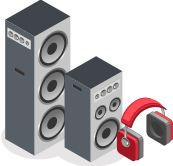

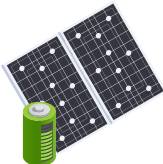






Environmental issue	Impact level	Preventive and Corrective Measures to Reduce the Impact	
<p>Air Quality</p> 	<p>Low level</p>		<ul style="list-style-type: none"> • Conduct regular air quality monitoring to ensure compliance with the standards set by the Department of Industrial Works or other relevant standards. • Implement and develop air quality control systems within the factory using environmentally friendly technologies.
		 	<ul style="list-style-type: none"> • Enforce measures to prohibit burning of waste, including biomass, within the project area. • Increase green spaces around the project perimeter to serve as a barrier against airborne dust dispersion. • Maintain and service engines, machinery, or tools that generate exhaust fumes or particulate matter to ensure they operate efficiently at all times.
			<ul style="list-style-type: none"> • Spray water mist at points where dust particulates are generated within the project area.
<p>Greenhouse Gas Management</p> 	<p>Low level</p>	    	<ul style="list-style-type: none"> • Assess greenhouse gas emissions from organizational activities and undergo international standard certification audits conducted by accredited agencies. • Implement projects or activities to reduce resource consumption, energy usage, and greenhouse gas emissions. • Promote resource efficiency and maximize benefits through waste management following the principles of Reduce, Reuse, and Recycle (3R). • Support the use of energy-efficient practices and promote the adoption of renewable energy sources. • Enhance and develop production processes and operations using environmentally friendly technologies. • Foster awareness and understanding of greenhouse gas emissions and the impacts of climate change, advocating for employee and stakeholder participation in adapting behaviors to mitigate environmental impacts.



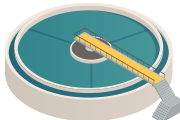





Environmental issue	Impact level	Preventive and Corrective Measures to Reduce the Impact	
<p>Water Management</p> 	<p>Low level</p>		<ul style="list-style-type: none"> • Implement water-saving products such as sensor faucets to conserve water. • Encourage employee and stakeholder participation in water conservation efforts through awareness campaigns and initiatives.
<p>Drainage System</p> 	<p>Low level</p>		<ul style="list-style-type: none"> • Conduct effluent quality monitoring to ensure compliance with standards set by the Department of Industrial Works or other relevant regulations.
			<ul style="list-style-type: none"> • Establish retention ponds to collect rainwater runoff from the construction site. • Reuse water from the retention ponds for various purposes, such as watering roads at the project entrance.
		   	<ul style="list-style-type: none"> • Install sediment traps to capture debris before water is discharged outside the project area. • Regularly clean drainage channels around the project site. • Control and manage all rainwater within the project area by quickly draining it into surrounding drainage channels while also storing it for internal use or delaying its release outside the project area. • Regularly inspect drainage systems, perimeter channels, and sediment traps.



Environmental issue	Impact level	Preventive and Corrective Measures to Reduce the Impact	
<p>Noise Level</p> 	<p>Medium level</p>		<ul style="list-style-type: none"> • Install machinery at an appropriate distance from the factory fence and neighboring communities. • Maintain and replace machinery parts according to the maintenance schedule. • Construct sound barriers and enclosures around machinery to mitigate noise. • Conduct noise level assessments both inside and outside the company premises, during operation and idle periods, to ensure compliance with legal standards. • Provide noise pollution protection equipment, such as earplugs, to employees and workers during operations. • Implement a rotation system for workers operating in high-noise areas as per legal requirements.
<p>Energy Management</p> 	<p>Low level</p>		<ul style="list-style-type: none"> • Avoid using machinery for maintenance tasks that generate high levels of noise simultaneously. • Regularly inspect and maintain machinery according to the specified intervals in equipment manuals to prevent excessive noise emissions.
			<ul style="list-style-type: none"> • Conduct regular inspections and maintenance of machinery according to the specified intervals outlined in equipment manuals to prevent excessive noise emissions. • Develop a Noise Contour Map after the project commences operations, utilizing study results to manage environmental noise effectively.
			<ul style="list-style-type: none"> • Implement projects or activities to reduce energy consumption within the organization, such as turning off lights and unplugging electrical devices when not in use. • Promote employee and stakeholder participation in energy-saving initiatives through awareness campaigns.
			<ul style="list-style-type: none"> • Install solar rooftop panels to utilize renewable energy within the production process. • Implement projects or activities to reduce energy consumption within the organization, such as turning off lights and unplugging electrical devices when not in use. • Promote employee and stakeholder participation in energy-saving initiatives through awareness campaigns.



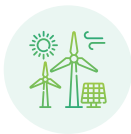
Environmental issue	Impact level	Preventive and Corrective Measures to Reduce the Impact	
<p>Non-Hazardous Waste Management</p> 	<p>Low level</p>		<ul style="list-style-type: none"> • Provide waste bins to accommodate four types of waste: general waste, recyclable waste, hazardous waste, and organic waste. Each bin should be clearly labeled with the type of waste it is intended for and have a tightly fitting lid. • Collect and dispose of waste properly, ensuring it is sent for treatment or disposal in accordance with regulations. • Collect recyclable waste and send it for recycling to be reused for new purposes.
<p>Manufacturing Waste Management</p> 	<p>Low level</p>		<ul style="list-style-type: none"> • Develop a waste inventory to categorize and identify types of waste, including specifying proper disposal methods and treatment. • Establish secure and safe storage areas for storing electrical equipment, damaged solar panels, and other waste from manufacturing processes. Ensure that this waste is sent to waste disposal companies for proper handling and disposal in compliance with legal requirements. • Provide training on waste storage, collection, and disposal methods for manufacturing processes.
<p>Biodiversity</p> 	<p>Low level</p>		<ul style="list-style-type: none"> • Conduct Environmental Impact Assessments (EIA) to evaluate the potential impacts and risks of projects on environmental integrity, ecosystem resilience, and natural changes. • Implement measures to avoid and minimize negative impacts on biodiversity, taking responsibility for all sensitive areas with regards to biodiversity. • Promote reforestation efforts to conserve natural resources and maintain environmental balance.



Greenhouse Gas Emission Management

Guidelines for Reducing Greenhouse Gas Issues Management

Currently, renewable energy is gaining importance and is widely discussed because it is crucial in driving the achievement of carbon neutrality and net zero emissions at the organizational, business sector, national, and international levels, as outlined in the United Nations framework on climate change and the Paris Agreement. Amidst the global crisis caused by climate change, which impacts society, the economy, and all living organisms on Earth, preparing for and mitigating the effects of these challenges is not solely the responsibility of national leaders or businesses but a collective effort requiring everyone to cooperate and adjust daily behaviors to prevent and address these issues. The goal is for every country to collaborate in reducing greenhouse gas emissions, and as the Company fully engaged in the renewable energy sector, there is a commitment to lead in environmentally friendly technology and energy innovation. Key strategies managed by the Company include actively participating in reducing greenhouse gas emissions and addressing global warming seriously, to drive clean energy as the primary force propelling towards a low-carbon society together, under the **“Create, Share, and Contribute”** initiative.



“Create”

Creating and developing renewable energy sources contributes significantly to replacing electricity production from fossil fuels



“Contribute”

Being part of Thailand’s efforts to mitigate climate change by developing renewable energy projects.



“Share”

Sharing carbon assets generated from company projects with organizations or companies that need to offset their own greenhouse gas emissions.



Management guidelines aligned with the goals of the country, as outlined by the “Create, Share, and Contribute”

“Create” The Company plays a significant role at the national level in conducting business in renewable energy power plants and developing technologies and innovations in energy that can substantially and sustainably reduce greenhouse gas emissions. The Company engages in important projects and activities, including:

- Collaborating to develop wind and solar energy projects alongside energy storage systems, such as battery storage, under the Feed-in Tariff (FIT) scheme from 2022 to 2030, targeting groups without fossil fuel costs. This initiative is part of Thailand’s Power Development Plan (PDP).
- Expanding the solar energy business by installing rooftop solar panels, which serve as distributed generation (DG) sources in line with the decentralization principle outlined in the Ministry of Energy’s Policy 4D1E.
- Developing new business ventures and innovations in energy, such as Virtual Power Plants (VPPs), to support electricity trading through the power grid system under the Third Party Access (TPA) policy set by the government.



“Contribute” The Company operates a comprehensive renewable energy business model to lighten investment burdens and strengthen the renewable energy industry. This model comprises the following main businesses:

- Engaging in the production and distribution of solar energy through Private Power Purchase Agreements (PPAs), installing Solar Rooftop systems along with equipment and maintenance services. This enables the production of electricity for in-house corporate customers and industrial factories, without incurring expenses. Consequently, consumers can access electricity at lower prices and with reduced greenhouse gas emissions.
- Expanding the Private PPA model to reach customers in residential communities or condominiums, aiming to increase access to cleaner and more affordable electricity for new customer segments.
- Operating the installation and servicing of Electric Vehicle (EV) Charging Stations for condominium projects, collaborating with project owners to share the investment burden and reduce installation costs for EV Charging Stations.



This initiative enables residents within condominiums to easily access renewable energy-powered electricity, driving sustainable reductions in greenhouse gas emissions at the household level.



“Share”

- Expand the volume and value of climate assets such as carbon credits and renewable energy certificates (RECs) held by the Company.
- Recommend client groups for the Company to offer carbon management services, assisting clients in achieving their own climate change objectives.

Management strategies to reduce greenhouse gas emissions within the organization

Greenhouse gas emissions of the organization decreased from the base year of 2022

Target in 2023 (decreased 5.00%)

Y 2023

increased 22.57



Note:

- ⁽¹⁾ The targets and progress for the year 2023 cover only the headquarters and the Energy Business, Engineering and Turnkey Business group.
- ⁽²⁾ The increase that occurred in the year 2023 was influenced by business expansion, coupled with the post-COVID-19 pandemic situation, which allowed the company to fully operate its business activities. This led to an increase in greenhouse gas emissions within Scope 1 and Scope 3 boundaries.

Quantity of Renewable Energy Certificates (RECs) is

571,208.35 RECs ⁽¹⁾

Wind power projects:

371,741.32 RECs ⁽¹⁾

Solar power projects:

199,467.03 RECs ⁽¹⁾⁽²⁾

quantity of Carbon Credits is ⁽³⁾

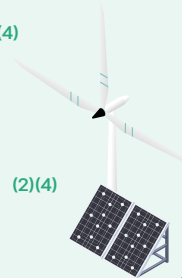
954,240.48 tCO₂e ⁽⁴⁾

Wind power projects:

621,017.91 tCO₂e ⁽⁴⁾

Solar power projects:

333,222.57 tCO₂e ⁽²⁾⁽⁴⁾



Note:

- ⁽¹⁾ REC quantities for Quarters 3-4 are estimates from the previous year.
- ⁽²⁾ The figures do not include solar power plants in Vietnam and solar rooftops across Thailand.
- ⁽³⁾ Carbon Credit quantities are the expected results from electricity production of power plants, anticipated to be sold after project registration completion.
- ⁽⁴⁾ Calculations are based on a Grid Emission Factor of 0.5986 kgCO₂ per kWh.



Apart from developing comprehensive renewable energy businesses and fostering environmentally friendly clean energy innovations to drive renewable energy as a primary force in society's low-carbon transition, the Company is also committed to developing processes to reduce greenhouse gas emissions from operational activities sustainably. This commitment involves management strategies aimed at reducing greenhouse gas emissions within the organization, outlined as follows:

Greenhouse Gas Emissions Assessment

- Establishment of a committee to conduct assessments and verify the results of greenhouse gas emissions to develop standards, operational quality, and enable the organization to achieve sustainable environmental development goals. This aligns with Thailand's national policy on reducing greenhouse gas emissions and aims to achieve the United Nations' Net Zero Emission target.
- Development of environmental policy and declarations to serve as the basis for criteria and internal operational guidelines within the Company.
- Advocacy for the creation of knowledge and understanding among executives and employees regarding the importance of climate issues.
- Continual organization of activities or projects to promote environmental conservation and help alleviate climate issues within the Company.

Disclosure of Greenhouse Gas Emission Information

The disclosure of greenhouse gas emission data by an organization is considered a crucial step towards effectively managing and controlling the volume of greenhouse gas emissions in alignment with both national and international greenhouse gas management guidelines. The process of compiling this data involves the following steps:



Data Recording



Analysis and Reporting



Verification



Certification

The Company has conducted a greenhouse gas emission assessment encompassing business operation at the headquarters and three business groups: Energy business, Engineering and Turnkey business, and expanded the assessment scope in the year 2023 to include the High Voltage Equipment business group comprising 18 companies. Additionally, the Company has established operational guidelines to reduce greenhouse gas emissions within the organization, as follows:



Resource Efficiency

Supporting the optimal utilization of resources within the organization, maximizing benefits through continuous improvement processes and production methods using modern technology and innovation, driving business operations in line with the principles of the circular economy.



Clean Energy

Promoting efficient energy use and increasing the utilization of clean energy in the organization's production processes through the use of electricity generated from solar energy.



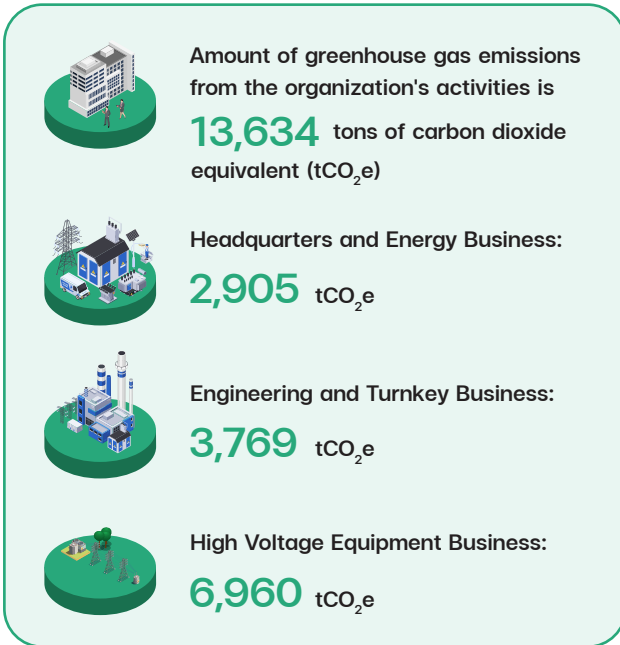
Green Network

Together with all stakeholders, promote environmental conservation to develop sustainable management of climate change.



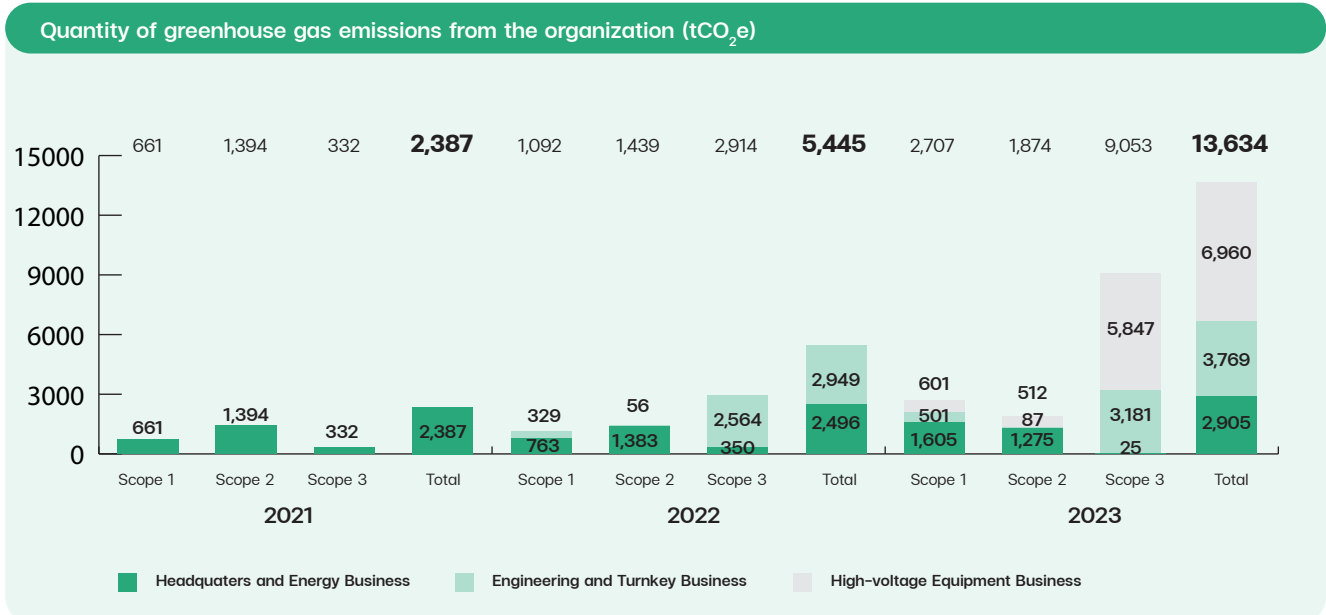


Operational Results of the Reducing Greenhouse Gas Emissions within the Organization



The Company collects data on greenhouse gas emissions within the scope of the mandated reporting and this data has been reviewed by experts from Bureau Veritas Certification (Thailand) Co., Ltd. The Company has received a Greenhouse Gas Verification Statement in accordance with the ISO 14064-1:2018 standard for measuring and reporting organizational emissions and emission reductions. This verification occurred on March 15, 2024 (Headquarters and Energy Business, Engineering and Turnkey Business) and on March 6, 2024 (High Voltage Equipment Business). In the year 2023, the Company aimed to reduce its organizational greenhouse gas emissions by 5.00 percent compared to the baseline year 2022. However, operational results indicate an increase in greenhouse gas emissions of 6,674 tons of carbon dioxide equivalent, representing a 22.57 percent increase from 2022. This increase is attributed to

a 92.86 percent rise in Scope 1 emissions, primarily from the use of fossil fuels for employee transportation within the organization, and a 10.02 percent rise in Scope 3 emissions from raw materials used in the construction activities of the Engineering and Turnkey Business. Due to the Company's expansion of its business to become a One Stop Service provider for comprehensive clean energy solutions and to further support the future changes in the energy sector in driving greenhouse gas emissions reductions across both business and societal sectors, the Company has advanced its operations. This has led to an increase in greenhouse gas emissions in Scope 1 and Scope 3. However, it was observed that emissions in Scope 2, from internal electricity use, decreased by 5.35 percent compared to 2022. This decrease is attributed to employees' heightened awareness and importance placed on participating in reducing electricity usage within the organization, particularly evident as employees resumed full-scale office work. This reflects the employees' consciousness and contribution to reducing internal electricity consumption, resulting in the achievement of emissions reduction goals in this scope. Also, in the segment of the High Voltage Equipment Business, where the Company expanded the scope of assessment and initiated the preparation of greenhouse gas emission reports for the first time in 2023, there was an increase in emissions. In this inaugural year of reporting, the quantity of greenhouse gas emissions amounted to 6,960 tons of carbon dioxide equivalent. Overall, including emissions from both the headquarters and the three business groups, the total greenhouse gas emissions reached 13,634 tons of carbon dioxide equivalent. Moreover, the Company has been monitoring and setting guidelines to reduce energy consumption, raw materials, and other resources through promoting the use of clean energy and environmentally friendly products. These efforts aim to lead to a reduction in the organization's greenhouse gas emissions in line with the direction and objectives of our business operations. Additionally, the Company has set intermediate targets for carbon neutrality and aims to achieve net-zero emissions in alignment with the future direction and goals of the country.





Scope	Measurement	Quantity of greenhouse gas emissions of the organization ⁽¹⁾		
		2021	2022	2023
Quantity of greenhouse gas emissions from the headquarters and energy business				
Scope 1	tCO ₂ e	660.55	763.00	1605.00
Scope 2	tCO ₂ e	1,393.99	1,383.00	1,275.00
Scope 3	tCO ₂ e	332.24	350.00	25.00
Totaling 3 scopes	tCO ₂ e	2,386.78	2,496.00	2,905.00
Quantity of greenhouse gas emissions per unit of output	tCO ₂ e per MWh	0.0045	0.0054	n/a
	tCO ₂ e per 1 million Baht	n/a	n/a	0.4520 ⁽²⁾
Quantity of greenhouse gas emissions from engineering and turnkey business				
Scope 1	tCO ₂ e	n/a	329.00	501.00
Scope 2	tCO ₂ e	n/a	56.00	87.00
Scope 3	tCO ₂ e	n/a	2,564.00	3,181.00
Totaling 3 scopes	tCO ₂ e	n/a	2,949.00	3,769.00
Quantity of greenhouse gas emissions per unit of output	tCO ₂ e per million Baht	n/a	3.1995	2.6787
Quantity of greenhouse gas emissions from high voltage equipment business ⁽³⁾				
Scope 1	tCO ₂ e	n/a	n/a	601.00
Scope 2	tCO ₂ e	n/a	n/a	512.00
Scope 3	tCO ₂ e	n/a	n/a	5,847.00
Totaling 3 scopes	tCO ₂ e	n/a	n/a	6,960.00
Quantity of greenhouse gas emissions per unit of output	tCO ₂ e per 1 million Baht	n/a	n/a	4.4015
Total greenhouse gas emissions of the organization				
Scope 1	tCO ₂ e	660.55	1,092.00	2,707.00
Scope 2	tCO ₂ e	1,393.99	1,439.00	1,874.00
Scope 3	tCO ₂ e	332.24	2,914.00	9,053.00
Totaling 3 scopes	tCO ₂ e	2,386.78	5,445.00	13,634.00
Quantity of greenhouse gas emissions per unit of output	tCO ₂ e per 1 million Baht	n/a	n/a	1.4481

Note:

⁽¹⁾ The Company assessed and disclosed its organizational greenhouse gas emissions data for the first time in the year 2021.

⁽²⁾ In the year 2023, the quantity of greenhouse gas emissions per unit of output for the headquarters and energy business group was adjusted from being measured per unit of electricity produced (megawatt-hour) to being measured per unit of revenue (million Baht) to align with performance measurement across all business groups.

⁽³⁾ The high voltage electrical equipment business group underwent its first assessment of greenhouse gas emissions in the year 2023.



Energy Management

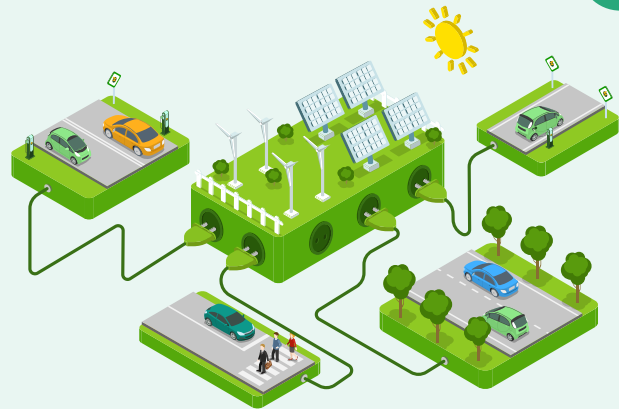
Important Performance Results

Quantity of electricity consumption from external sources decreased from the base year of 2022

Target in 2023 (decreased 5.00%)

Y 2023

decreased 9.22



Guidelines for Energy Management

Currently, the overall trend of energy demand continues to expand consistently, as energy is a crucial factor driving business operations and societal activities in the contemporary era. Recognizing the significance of efficient energy utilization and internal energy management within the organization to promote sustainable energy conservation, the Company is dedicated to driving successful energy conservation initiatives in the long term. Therefore, policies and operational guidelines have been established to lead towards continuous implementation and development, while ensuring monitoring of progress according to international standards, aiming to elevate the commitment to efficient energy usage alongside the advancement of clean energy technology and innovation within the business sector. This is aimed at enhancing energy management capabilities to sustainably support future growth.

Energy Reduction Measures

The Company is actively engaged in energy management to promote highly efficient energy usage through the enhancement and development of activities that impact energy consumption positively. This includes supporting the adoption of alternative energy sources within the organization to reduce energy consumption while simultaneously creating positive impacts on communities, society, and the environment. Guidelines for operational activities have been established to raise awareness and serve as a framework for employees to efficiently utilize energy. The following are the outlined activities aimed at maximizing energy efficiency:



- Implementing activities to promote the most beneficial use of energy and reduce energy consumption within the organization, such as campaigns to turn off air conditioners, lights, and electrical appliances when not in use or immediately after use, in order to conserve energy and decrease electricity consumption.



- Installing solar power generation systems in the high-voltage electrical equipment manufacturing plant to increase the proportion of renewable energy usage. Currently, there is a total installed capacity of 98.2 megawatts. Additionally, solar-powered streetlights have been installed to provide illumination during nighttime hours. The adoption of solar energy not only reduces energy consumption from fossil fuels but also decreases the organization's greenhouse gas emissions.



Operational Results of Energy Reduction Measures within the Organization

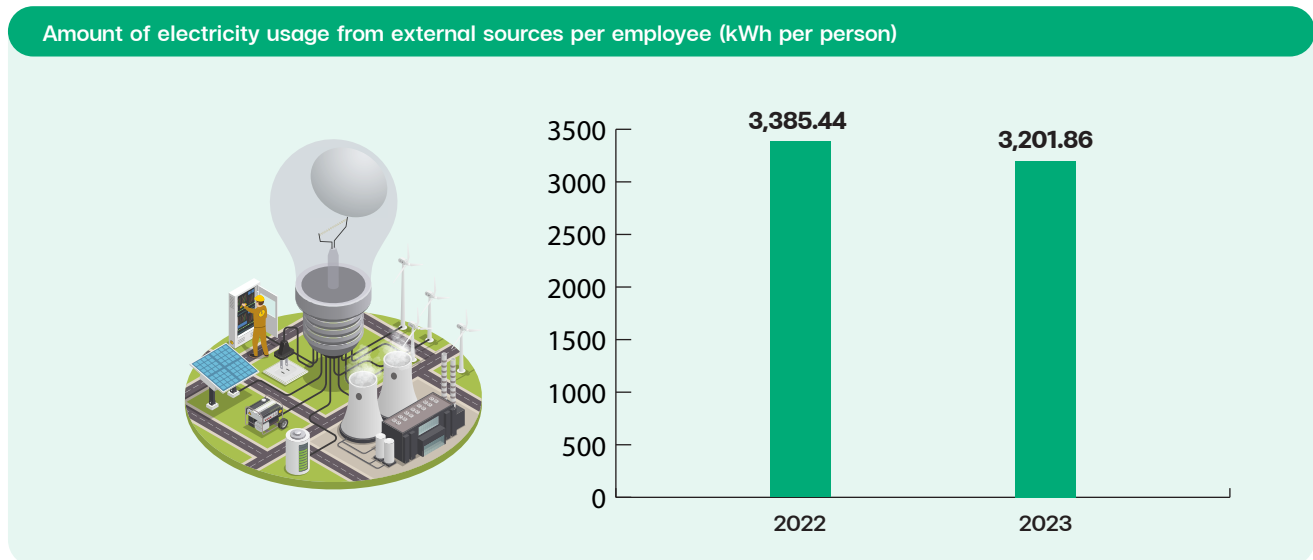
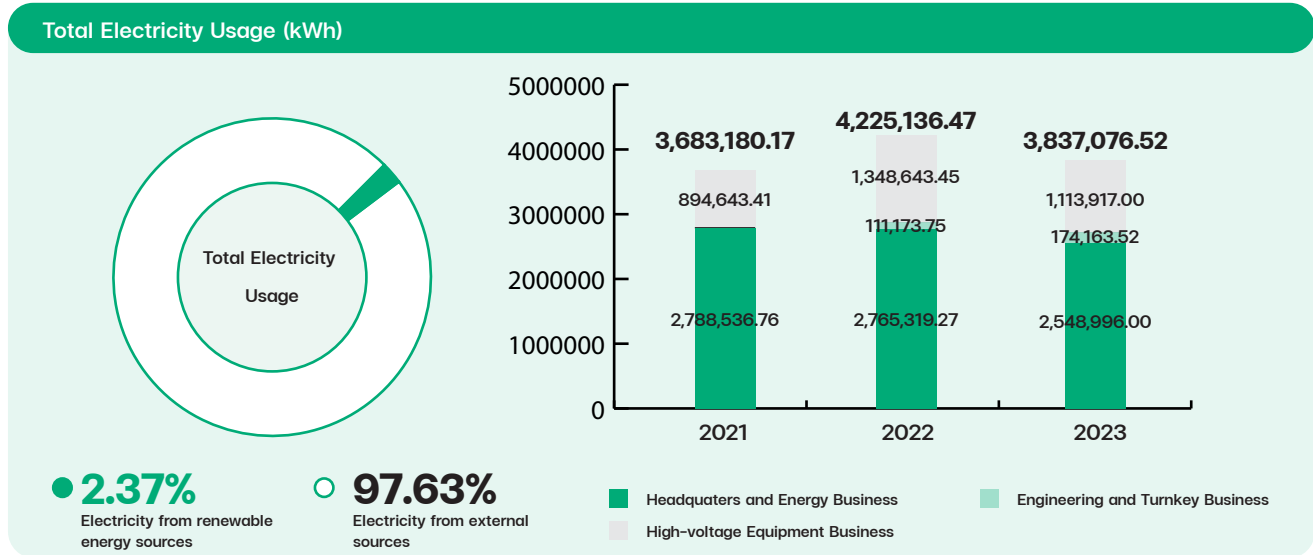
Total electricity consumption of the organization:
3,837,076.52 kWh

Electricity consumption from external sources:
3,746,174.52 kWh

Electricity consumption from renewable sources:
90,902.00 kWh

Electricity consumption from external sources per employee:
3,201.86 kWh per person

The total electricity consumption of the organization, covering activities across the main office, the energy business, the engineering and turnkey business and the high-voltage equipment business, amounted to 3,837,076.52 kilowatt-hours in the year 2023. This comprised electricity consumption from external sources of 3,746,174.52 kilowatt-hours, accounting for 97.63 percent of the total, and electricity consumption from renewable sources of 90,902.00 kilowatt-hours, accounting for 2.37 percent of the total. The electricity consumption from external sources per employee was 3,201.86 kilowatt-hours, reflecting a decrease of 9.22 percent compared to the previous year (2022), while the electricity consumption from external sources per employee decreased by 5.42 percent.





Scope	Measurement	Organization's energy consumption ⁽¹⁾		
		2021	2022	2023
Electricity consumption of the headquarters and energy business				
Electricity consumption from external sources	Kilowatt-hours	2,788,536.76	2,765,319.27	2,548,996.00
Electricity consumption from renewable energy sources	Kilowatt-hours	n/a	n/a	n/a
Total electricity consumption volume	Kilowatt-hours	2,788,536.76	2,765,319.27	2,548,996.00
Proportion of renewable energy consumption	Kilowatt-hours	n/a	n/a	n/a
Electricity consumption of engineering and turnkey business				
Electricity consumption from external sources	Kilowatt-hours	n/a	111,173.75	174,163.52
Electricity consumption from renewable energy sources	Kilowatt-hours	n/a	n/a	n/a
Total electricity consumption volume	Kilowatt-hours	n/a	111,173.75	174,163.52
Proportion of renewable energy consumption	Kilowatt-hours	n/a	n/a	n/a
Electricity consumption of high voltage equipment business				
Electricity consumption from external sources	Kilowatt-hours	791,863.00	1,250,361.00	1,023,015.00
Electricity consumption from renewable energy sources	Kilowatt-hours	102,780.41	98,282.45	90,902.00
Total electricity consumption volume	Kilowatt-hours	894,643.41	1,348,643.45	1,113,917.00
Proportion of renewable energy consumption	Kilowatt-hours	11.49%	7.29%	8.16%
Total electricity consumption of the organization				
Electricity consumption from external sources	Kilowatt-hours	3,580,399.76	4,126,854.02	3,746,174.52
Electricity consumption from renewable energy sources	Kilowatt-hours	102,780.41	98,282.45	90,902.00
Total electricity consumption volume	Kilowatt-hours	3,683,180.17	4,225,136.47	3,837,076.52
Proportion of renewable energy consumption	Kilowatt-hours	2.79%	2.33%	2.37%
Volume of electricity consumption from external sources per employee ⁽²⁾	kWh per person	3,733.47	3,385.44	3,201.86

Note:

⁽¹⁾ "The Company collects and discloses internal energy consumption data covering the headquarters, energy business, engineering and turnkey business and high-voltage equipment business group. This disclosure marks the first year of such reporting for the year 2021.

⁽²⁾ "In the year 2023, the amount of electricity consumption from external sources per employee was recalculated to encompass the operations of employees working in the headquarters, energy business, engineering and turnkey business and high-voltage equipment business group.



Water Management

Important Performance Results

Quantity of water consumption from external sources decreased from the base year of 2022

Target in 2023 (decreased 5.00%)

Y 2023

decreased 27.47



Guidelines for Water Management

Sustainable water resource management is considered a crucial aspect of development both at the national and international levels. In alignment with the sustainable development goals, particularly Goal 6, the Company promotes high-quality and efficient water management. This includes ensuring access to sufficient and standardized drinking water for all members of society. Due to the current circumstances, in addition to the challenges posed by climate change crisis, addressing the issue of water scarcity and quality has become another significant concern impacting livelihoods and business operations. Therefore, the Company prioritizes internal water resource management by implementing a comprehensive water management process within the organization. This includes treating water throughout the production process, ensuring that water quality meets standards before discharge into the environment. Encouraging water reuse and safe recycling practices are also promoted to maximize the efficiency of water resource utilization within the Company, yielding the highest possible benefits. Concurrently, efforts are made to conserve and restore water sources, aiming for sustainable water management objectives.

Water Reduction Measures

The Company implements management strategies to ensure efficient water resource utilization, covering activities from the water source to discharge into the environment. Given the nature of the renewable energy business, equipment, circuitry systems, and innovations in renewable energy technologies operate in a closed-loop system, significantly minimizing water usage within business operations. The majority of water usage in business processes is allocated for healthcare and public utility systems within office buildings only. The Company collects data to facilitate comprehensive management covering headquarters, energy business, engineering and turnkey business, and high-voltage equipment business group. Various initiatives are undertaken to reduce water usage, including:

- Internal water management emphasizes cost-effective water usage following the principles of the 3Rs (Reduce, Reuse, Recycle). This includes raising awareness among employees to use water efficiently by reducing consumption (Reduce). For example, utilizing water-saving sanitary fixtures, installing automatic sensor faucets to regulate water flow appropriately in bathrooms, and conducting regular inspection, maintenance, and repair of water usage equipment to prevent constant leaks, thus helping to reduce water loss.
- Water that has been used in various activities within the high-voltage equipment manufacturing process undergoes treatment or quality improvement to be reused (Recycle). For example, it is utilized for watering plants and cleaning parking lots, which can reduce water consumption and expenses. The Company consistently maintains and improves our wastewater treatment systems to ensure treated water meets quality standards before being released into the environment. External agencies conduct quality inspections before the water is discharged to ensure compliance with legal regulations and industrial quality control standards. This instills confidence in the community and stakeholders that the water discharged from the Company’s operations does not pose pollution risks to society and the environment.
- Promoting and supporting the effective management of water resources to engage employees in the efficient utilization of water resources is essential. Recognizing the significance of sustainable water usage and aligning operational practices with ISO 14001:2015 Environmental Management System standards, the Company has implemented controls to reduce unnecessary water consumption. Activities are organized under the **“Promotion of Water Conservation Activities in Power Plants”** project. The objectives include regulating water usage from solar panel cleaning activities and fostering awareness of sustainable water conservation within the power plant premises. The project encompasses the following activities:



Equipment for cleaning solar panels and watering plants in the green area project has been modified to reduce the flow rate of water per minute, allowing for better control over water usage frequency. This modification includes the replacement of spray nozzles, pressure-adjustable nozzles, and sprinklers. Consequently, the overall water consumption, including electricity usage, has been reduced. Additionally, quick shut-off valves have been installed at the end of the hose for swift termination of operations.

Training sessions and guidelines have been conducted to ensure proper procedures for cleaning solar panels are followed, aiming to establish an efficient water resource management system and reduce unnecessary water wastage. The training emphasizes maintaining and controlling the usage levels of groundwater or tap water within prescribed limits.

Clear differentiation of water usage between the activities of cleaning solar panels and watering plants within the green area restoration project is essential. Utilizing sprinkler systems, spray nozzles, and adjustable nozzles aids in water conservation by allowing for precise control over the timing and volume of water used. This ensures efficient monitoring and tracking of results.



Monitoring the progress of the project is crucial through key performance indicators (KPIs) related to water usage from activities and regular planning meetings aimed at continuous improvement.





Operational Results of Water Reduction Measures within the Organization

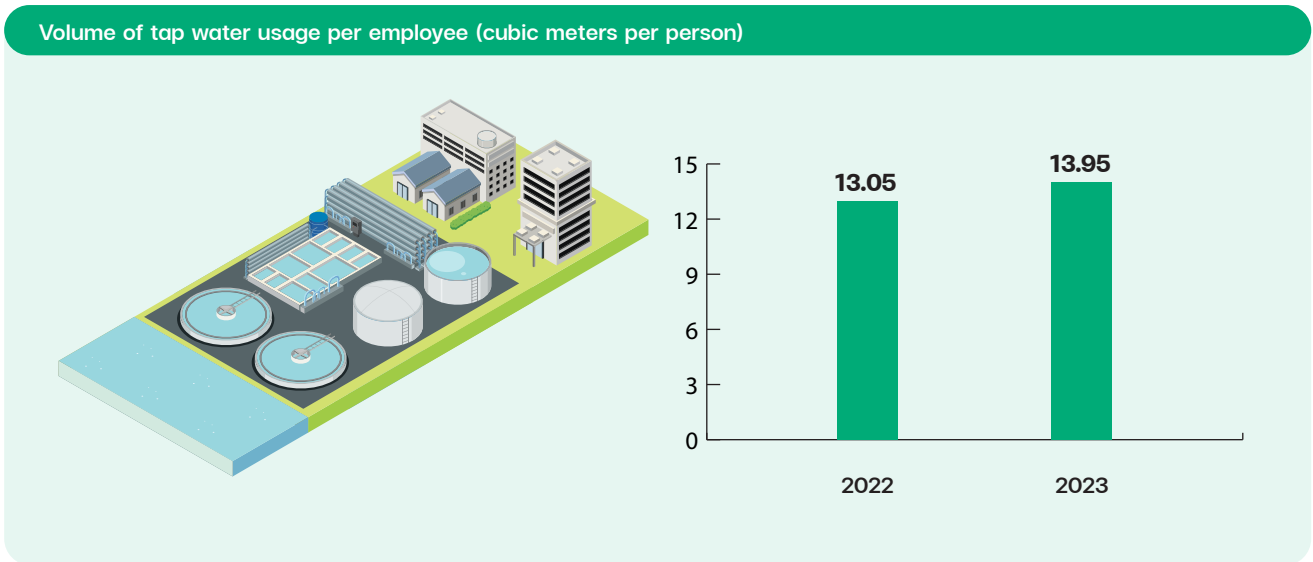
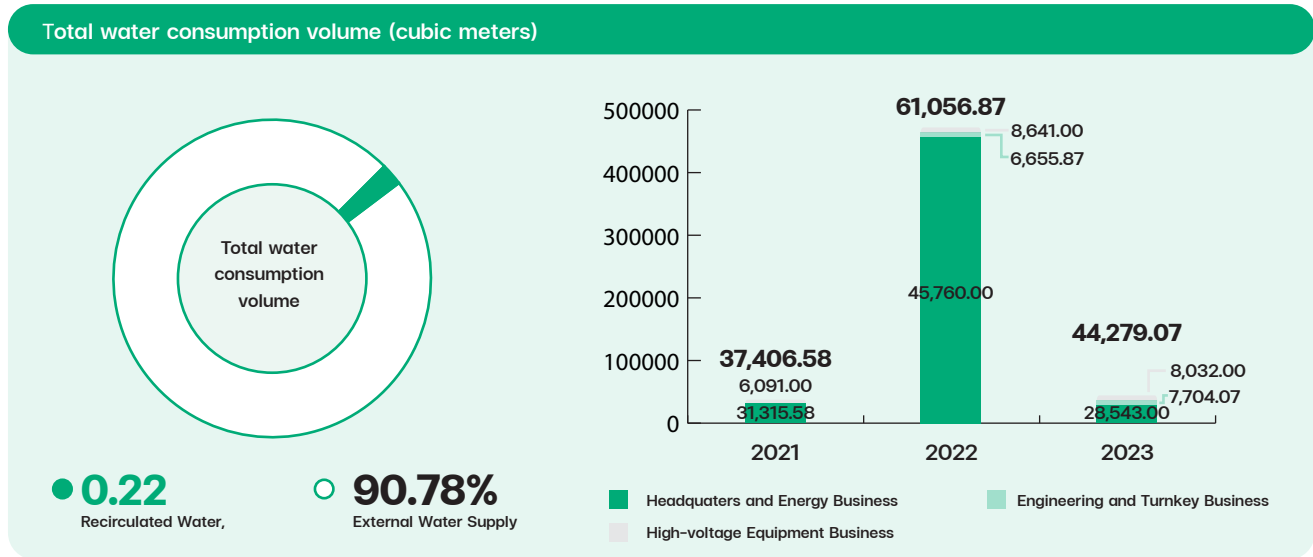
Total water consumption within the organization:
44,279.07 cubic meters

Water consumption from external sources:
44,183.07 cubic meters

Recirculated water consumption:
96 cubic meters

Water consumption from tap water per employee:
13.95 cubic meters per person

The Company has set a target to reduce water consumption, particularly in the main office and within energy Business, engineering, and Turnkey business; as well as, high-voltage equipment business, by 5 percent . In the year 2023, the total water consumption within the organization was 44,321.07 cubic meters. This includes water consumption from external sources of 44,183.07 cubic meters, accounting for 99.78 percent , and recirculated water consumption of 96 cubic meters, accounting for 0.22 percent of the total water consumption. The water consumption from tap water per employee is 13.95 cubic meters per person. It was observed that the water consumption from external sources decreased by 27.47 percent , while the water consumption from tap water per employee increased by 6.90 percent compared to the year 2022. The Company remains committed to promoting the responsible and beneficial use of water resources continuously.





Scope	Measurement	Organization's water consumption ⁽¹⁾		
		2021	2022	2023
Water consumption of the headquarters and energy business				
Water consumption from external sources	Cubic meters	31,315.58	45,760.00	28,543.00
Recirculated water consumption	Cubic meters	n/a	n/a	n/a
Total water consumption volume	Cubic meters	31,315.58	45,760.00	28,543.00
Proportion of recirculated water consumption	Cubic meters	n/a	n/a	n/a
Water consumption of engineering and turnkey business				
Water consumption from external sources	Cubic meters	n/a	6,655.87	7,704.07
Recirculated water consumption	Cubic meters	n/a	n/a	n/a
Total water consumption volume	Cubic meters	n/a	6,655.87	7,704.07
Proportion of recirculated water consumption	Cubic meters	n/a	n/a	n/a
Water consumption of high voltage equipment business				
Water consumption from external sources	Cubic meters	5,995.00	8,503.00	7,936.00
Recirculated water consumption	Cubic meters	96.00	138.00	96.00
Total water consumption volume	Cubic meters	6,091.00	8,641.00	8,032.00
Proportion of recirculated water consumption	Cubic meters	1.58%	1.60%	1.20%
Total water consumption of the organization				
Water consumption from external sources	Cubic meters	37,310.58	60,918.87	44,183.07
Volume of tap water consumption	Cubic meters	6,903.00	15,905.87	16,320.07
Volume of groundwater consumption	Cubic meters	30,407.58	45,013.00	27,863.00
Recirculated water consumption	Cubic meters	96.00	138.00	96.00
Total water consumption volume	Cubic meters	37,406.58	61,056.87	44,279.07
Proportion of recirculated water consumption	Cubic meters	0.26%	0.23%	0.22%
Volume of tap water consumption per employee ⁽²⁾	Cubic meters per person	n/a	13.05	13.95

Note:

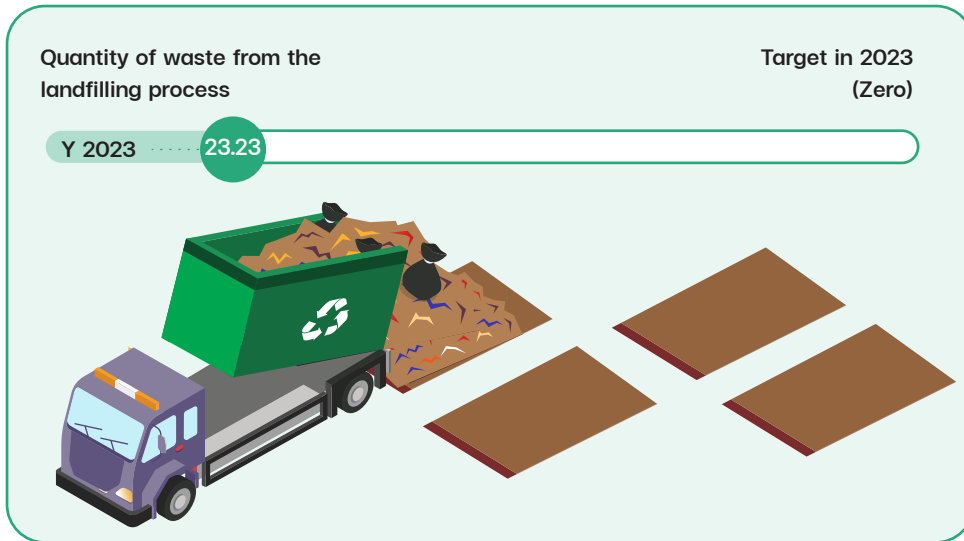
⁽¹⁾ "The Company collects and discloses internal water consumption data covering the headquarters, energy business, engineering and turnkey business and high-voltage equipment business group. This disclosure marks the first year of such reporting for the year 2021.

⁽²⁾ "In the year 2023, the amount of tap water consumption per employee was recalculated to encompass the operations of employees working in the headquarters, energy business, engineering and turnkey business and high-voltage equipment business group.



Waste and Pollution Management

Important Performance Results



The problem lies in resource scarcity and inefficiencies in waste management systems, particularly the lingering issue of pollution in the environment. This pollution, including the escalating greenhouse gas emissions, poses increasingly severe impacts on the environment. These issues not only directly affect the lives and well-being of everyone in society but also indirectly impact livelihoods. Therefore, the Company prioritizes proper waste management to align with the goal of reducing waste sent to landfill to zero (Zero Waste to Landfill) or minimizing waste generation, addressing the issue at its source. Furthermore, the Company has been implementing waste management practices covering both production processes and office waste, by supporting reduction initiatives, promoting resource efficiency to minimize waste generation, and aiming to reduce impacts on communities, society, and the environment. We commit to developing technology and innovation to manage waste to support future business growth. Additionally, we promote business operations aligned with the principles of the circular economy to grow sustainably alongside society and the environment.

Guidelines for Waste and Pollution Management

The Company has established waste management procedures to comply with regulations, laws, and international standards to minimize environmental impacts. These procedures cover all business processes systematically, utilizing waste management principles. There are monitoring, evaluation, and review mechanisms in place for continuous improvement. Additionally, communication, public relations efforts, and awareness campaigns are conducted to promote the application of the 3Rs principles (Reduce, Reuse, Recycle) to support resource efficiency in line with the circular economy principles.



Plan

- Identify sources of waste
- Assess the hazards
- Determine management methods
- Establish objectives, goals, and action plans



Do

- Raise awareness
- Adhere to plans and legal requirements
- Segregate by type
- Store appropriately
- Transport with standard procedures
- Utilize and treat for benefit



Check

- Regularly inspect and improve the waste management system to maximize efficiency
- Monitor the implementation of plans to achieve objectives and goals



Action

- Set guidelines for continuous improvement to maximize efficiency



Waste and Pollution Reduction Measures

The Company has analyzed its database to find the most effective waste management strategies. We start by raising awareness among employees to utilize resources most efficiently, minimize waste generation, and manage waste properly through the Zero Waste project to minimize environmental impacts. A dedicated waste management team has been established following the principles of the 3Rs to push for and oversee efficient waste management throughout the production process. The long-term goal is to send zero waste to landfill, achieve environmental balance, and continually develop sustainable practices. In 2023, the Company significantly enhanced the waste management operations, leading to a participation in the “Zero Waste to Landfill” project by the Department of Industrial Works for the year 2023. Additionally, we increased the utilization potential of industrial waste and promoted the utilization of waste generated from factory operations through a plan to switch raw materials from solid rods to copper tubes. In particular, in the production process of high-voltage equipment, the waste generated from machining was reduced by 1.02 tons, representing a 41 percent reduction. As a result of these efforts, the Company received two awards from the Department of Industrial Works: the 3Rs Award for excellent waste management practices and the 3Rs+ Award for economic returns and reducing the volume of waste that needs to be managed. Furthermore, the Company remains committed to advancing our waste management practices according to the principles of good waste management from the source. We endeavor to minimize waste generation at its origins and seeks the most effective methods to utilize waste for maximum benefit. This dedication aims to develop and promote sustainable environmental management systems within industrial facilities.



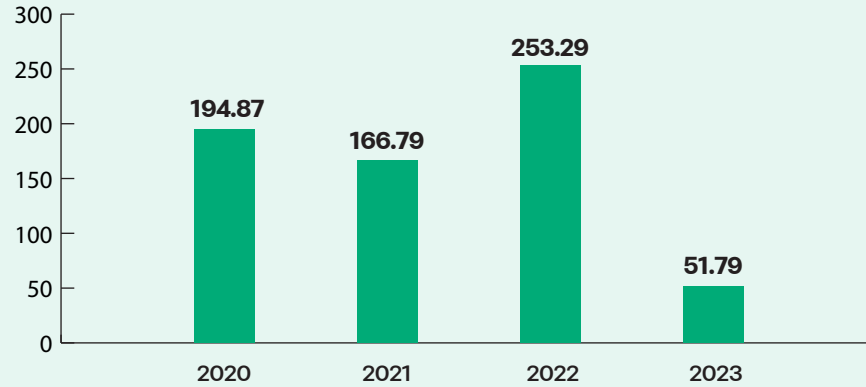
Operational Results of Waste and Pollution Reduction Measures



The Company’s long-term goal is to achieve zero landfilling of waste from the production process (industrial residues) and is committed to continually improving and developing processes to reduce waste generation from the production process. In the year 2023, the quantity of waste from the production process of high-voltage equipment and the production process of electricity from renewable energy sources amounted to a total of 51.79 tons, which decreased from 201.5 tons in 2022. There were 39.76 tons managed for disposal and treatment according to the 3Rs principle, accounting for 76.77 percent , while the remaining waste from the production process was landfilled, accounting for 23.23 percent.



Quantity of waste from the production process (tons)



Furthermore, the Company has collected data on the quantity of general waste generated from office activities to serve as a basis for responsible management guidelines, covering all activities arising from business operations. In the year 2023, the quantity of general office waste amounted to 150.71 tons, equivalent to 0.129 tons per employee per year. The Company has undertaken waste segregation into four categories: organic waste, general waste, recyclable waste, and hazardous waste, in order to utilize the segregated waste for beneficial purposes or ensure appropriate disposal in accordance with established practices.



Quantity of general household waste:

150.71 tons



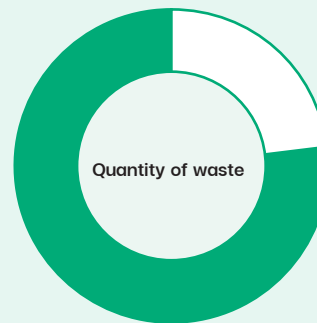
General household waste per employee:

0.129 tons per person



● **35.57%**
Hazardous waste

○ **64.43%**
Non-hazardous waste



○ **23.23%**
Waste managed by landfilling

● **76.77%**
Waste managed by 3Rs



Part 4

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About This Report

The Company prepared this Sustainability Report to present a key business issues and sustainable development guideline taking into account of environment, social, and corporate governance dimensions focusing on the implementation of strategic plans in order to achieve the organization's vision and mission under sustainable development policy. Including reports on performance that support achievement of the United Nations Sustainable Development Goals (UN SDGS) to every group of stakeholders by having a report framework that is in consistent with the indicators of Global Reporting Initiative (GRI) covered from January, 1 to January, 31 2023 and this Sustainability Report has been reviewed and approved by the Board of Directors and high ranking executives to ensure completeness of this report. In addition, environmental information regarding the amount of greenhouse gas emissions of the organization has been verified and certified (Greenhouse Gas Verification Statement) according to the verification of the measurement and greenhouse gas emissions and reductions at the organizational level standard (ISO 14064-1: 2018) by the Bureau Veritas Certification (Thailand) Co., Ltd.

This report and previous editions can be downloaded from the Company's website

For more information please contact

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Scope of This Report

The information presented in this report includes the sustainability performance results covered head office and 3 keys business of the Company including renewable energy sector, engineering and turnkey sector, and high-voltage equipment business sector. The scope of reporting covers information about the Company, subsidiaries, and associated companies / joint ventures as follows:

Company	Abbreviation	Business group / Company	Economic	Social ⁽¹⁾	Environment			
					Greenhouse gas	Energy	Water	Waste
1. Gunkul Engineering PCL	GUNKUL	Head Office	•	•	•	•	•	•
Energy Business								
2. G Wind Power Holding 3 Co., Ltd.	GWPH-3	Invest in companies that generate electricity	•	-	-	-	-	-
3. G Wind Power Holding 5 Co., Ltd.	GWPH-5	Invest in companies that generate electricity	•	-	-	-	-	-
4. Gunkul Wind Power 1 Co., Ltd.	GWP-1	Electricity Generation	•	-	-	-	-	-
5. Gunkul Wind Power 2 Co., Ltd.	GWP-2	Electricity Generation	•	-	-	-	-	-
6. Gunkul Wind Power 3 Co., Ltd.	GWP-3	Electricity Generation	•	•	-	-	-	-
7. Gunkul Wind Power 4 Co., Ltd.	GWP-4	Electricity Generation	•	-	-	-	-	-
8. Gunkul Wind Power 5 Co., Ltd.	GWP-5	Electricity Generation	•	-	-	-	-	-
9. Gunkul Wind Power 6 Co., Ltd.	GWP-6	Electricity Generation	•	-	-	-	-	-
10. Gunkul Wind Power 7 Co., Ltd.	GWP-7	Electricity Generation	•	-	-	-	-	-
11. Gunkul Wind Power 8 Co., Ltd.	GWP-8	Electricity Generation	•	-	-	-	-	-
12. Gunkul Wind Power 9 Co., Ltd.	GWP-9	Electricity Generation	•	-	-	-	-	-
13. Gunkul Wind Power 39 Co., Ltd.	GWP-39	Electricity Generation	•	-	-	-	-	-
14. Gunkul Wind Power 48 Co., Ltd.	GWP-48	Electricity Generation	•	-	-	-	-	-
15. Gunkul Wind Development 1 Co., Ltd.	GWD-1	Electricity Generation	•	-	-	-	-	-
16. Gunkul Wind Development 3 Co., Ltd.	GWD-3	Electricity Generation	•	-	-	-	-	-
17. Gunkul Wind Development 6 Co., Ltd.	GWD-6	Electricity Generation	•	-	-	-	-	-
18. Gunkul Wind Development 8 Co., Ltd.	GWD-8	Electricity Generation	•	-	-	-	-	-
19. Gunkul Wind Development 24 Co., Ltd.	GWD-24	Electricity Generation	•	-	-	-	-	-
20. Gunkul Wind Development 36 Co., Ltd.	GWD-36	Electricity Generation	•	-	-	-	-	-
21. Gunkul Wind Development 42 Co., Ltd.	GWD-42	Electricity Generation	•	-	-	-	-	-



Company	Abbreviation	Business group / Company	Economic	Social ⁽¹⁾	Environment			
					Greenhouse gas	Energy	Water	Waste
22. Gunkul Wind Development 51 Co., Ltd.	GWD-51	Electricity Generation	•	-	-	-	-	-
23. Gunkul Wind Development 54 Co., Ltd.	GWD-54	Electricity Generation	•	-	-	-	-	-
24. Gunkul Wind Development 58 Co., Ltd.	GWD-58	Electricity Generation	•	-	-	-	-	-
25. Gunkul Wind Development 60 Co., Ltd.	GWD-60	Electricity Generation	•	-	-	-	-	-
26. NK Power Solar Co., Ltd.	NKP	Electricity Generation	•	-	•	•	•	•
27. Infinite Alternative Energy Co., Ltd.	IAE	Invest in companies that generate electricity	•	-	-	-	-	-
28. Rang Ngern Solution Co., Ltd.	RNS	Electricity Generation	•	-	•	•	•	•
29. Eco Thai Energy Co., Ltd.	ECO	Electricity Generation	•	-	•	•	•	•
30. BMP Solar Co., Ltd.	BMPS	Electricity Generation	•	•	•	•	•	•
31. Gunkul Solar Power Co., Ltd.	GSP	Electricity Generation	•	-	-	-	-	-
32. Gunkul Solar Power 1 Co., Ltd.	GSP-1	Electricity Generation	•	-	-	-	-	-
33. Gunkul Solar Power 2 Co., Ltd.	GSP-2	Electricity Generation	•	•	•	•	•	•
34. Gunkul Solar Community Co., Ltd.	GSC	Electricity Generation and install an electrical system from renewable energy	•	•	-	-	-	-
35. Siam Gunkul Solar Energy Co., Ltd.	SGSE	Electricity Generation	•	-	-	-	-	-
36. Solar Energy Society Co., Ltd.	SES	Electricity Generation	•	•	•	•	•	•
37. Gunkul Solar Roof 1 Co., Ltd.	GSR-1	Electricity Generation	•	•	•	•	•	•
38. Gunkul Utility and Energy Co., Ltd.	GUE	Electricity Generation and install an electrical system from renewable energy	•	•	-	•	-	-
39. Gunkul Infinite Group Co., Ltd.	GIG	Rent, sublease, and property management including generate electricity	•	-	-	-	-	-
40. Bright Green Power Co., Ltd.	BGP	Electricity Generation	•	•	-	-	-	-
41. Gunkul Solar Powergen Co., Ltd.	GSPG	Electricity Generation	•	-	-	-	-	-
42. Gunkul One Energy 2 Co., Ltd.	GOE-2	Electricity Generation	•	-	-	-	-	-
43. Gunkul One Energy 5 Co., Ltd.	GOE-5	Electricity Generation	•	-	-	-	-	-
44. Gunkul One Energy 9 Co., Ltd.	GOE-9	Electricity Generation	•	-	-	-	-	-
45. Gunkul One Energy 11 Co., Ltd.	GOE-11	Electricity Generation	•	-	-	-	-	-



Company	Abbreviation	Business group / Company	Economic	Social ⁽¹⁾	Environment			
					Greenhouse gas	Energy	Water	Waste
46. Gunkul One Energy 18 Co., Ltd.	GOE-18	Electricity Generation	•	-	-	-	-	-
47. Gunkul One Energy 20 Co., Ltd.	GOE-20	Electricity Generation	•	-	-	-	-	-
48. Gunkul One Energy 23 Co., Ltd.	GOE-23	Electricity Generation	•	-	-	-	-	-
49. Future Energy Corporation Co., Ltd.	FE	Application platforms and computer programs services and invest in the business that generate electricity	•	•	-	-	-	-
50. Gunkul Godungfaifaa Platform Co., Ltd.	GDFP	Application platforms and computer programs services	•	•	-	-	-	-
51. Gunkul International (Mauritius)	GIM	Overseas Investment	•	-	-	-	-	-
52. Gunkul International Investment (Singapore) Pte. Ltd.	GIIS	Overseas Investment	•	-	-	-	-	-
53. Sendai Okura GD Daiichi Godo Kaisha	SND	Electricity Generation	•	-	-	-	-	-
54. Kimitsu Mega Solar Godo Kaisha	KMT	Electricity Generation	•	-	-	-	-	-
55. Future Asset Management Kabushiki Kaisha	FAM	Invest in companies that generate electricity	•	-	-	-	-	-
56. Singapore An Yang Pte. Ltd.	SGAY	Overseas Investment	•	-	-	-	-	-
57. Singapore Yun Yang Pte. Ltd.	SGYY	Overseas Investment	•	-	-	-	-	-
58. Gunkul Vietnam Joint Stock Company	GKVN	Overseas Investment	•	-	-	-	-	-
59. Tri Viet Tay Ninh Joint Stock Company	TVTN	Electricity Generation	•	-	-	-	-	-
60. Bach Khoa A Chau Hoa Binh Joint Stock Company	BKHB	Overseas Investment	•	-	-	-	-	-
61. Bach Khoa A Chau Tay Ninh Joint Stock Company	BKTN	Electricity Generation	•	-	-	-	-	-
62. Doan Son Thuy Investment Joint Stock Company	DST	Electricity Generation	•	-	-	-	-	-
63. INT Energy Pte. Ltd.	INT	Overseas Investment	•	-	-	-	-	-
64. Tan Chau Energy Joint Stock Company	TCE	Electricity Generation	•	-	-	-	-	-
65. Gulf Gunkul Corporation Co., Ltd. ⁽²⁾	GGC	Invest in companies that generate electricity	•	-	-	-	-	-
66. Wind Energy Development Co., Ltd. ⁽²⁾	WED	Electricity Generation	•	•	•	•	•	•
67. Greenovation Power Co., Ltd. ⁽²⁾	GNP	Electricity Generation	•	•	•	•	•	•



Company	Abbreviation	Business group / Company	Economic	Social ⁽¹⁾	Environment			
					Greenhouse gas	Energy	Water	Waste
68. Korat Wind Energy Co., Ltd. ⁽²⁾	KWE	Electricity Generation	•	•	•	•	•	•
69. Gulf Gunkul Solar Co., Ltd. ⁽²⁾	GGs	Electricity Generation	•	-	-	-	-	-
70. G-Power Source Co., Ltd. ⁽²⁾	GPS	Electricity Generation	•	-	-	-	-	-
71. Gunkul Chubu Powergen Co., Ltd. ⁽²⁾	GCPG	Electricity Generation	•	•	-	-	-	-
72. WHA Gunkul Green Solar Roof 1 Co., Ltd. ⁽²⁾	WHA_GSR-1	Electricity Generation	•	-	-	-	-	-
73. WHA Gunkul Green Solar Roof 3 Co., Ltd. ⁽²⁾	WHA_GSR-3	Electricity Generation	•	-	-	-	-	-
74. WHA Gunkul Green Solar Roof 6 Co., Ltd. ⁽²⁾	WHA_GSR-6	Electricity Generation	•	-	-	-	-	-
75. WHA Gunkul Green Solar Roof 17 Co., Ltd. ⁽²⁾	WHA_GSR-17	Electricity Generation	•	-	-	-	-	-
76. Pun New Energy Co., Ltd. ⁽²⁾	PNE	Electricity Generation	•	•	-	-	-	-
77. Origin Gunkul Energy Co., Ltd. ⁽²⁾	OG	Electricity Generation	•	-	-	-	-	-
78. JGS Synergy Power Co., Ltd. ⁽²⁾	JGS	Conduct business related to electric power	•	-	-	-	-	-
79. Kenyir Gunkul Solar Snd Bhd ⁽²⁾	KGS	Electricity Generation	•	-	-	-	-	-
Engineering and Turnkey Business								
80. Gunkul Power Development Co., Ltd.	GPD	Engineering and Turnkey	•	•	•	•	•	•
81. Future Electrical Control Co., Ltd.	FEC	Engineering and Turnkey	•	•	•	•	•	•
82. Joint Venture GPD & TEECL Co., Ltd.	JV_GPD-TEECL	Engineering and Turnkey	•	•	•	•	•	•
83. Future Power Construction Co., Ltd.	FPC	Engineering and Turnkey	•	•	•	•	•	•
High-Voltage Equipment Business								
84. G.K. Assembly Co., Ltd.	GKA	Manufacture equipment for electricity system	•	•	•	•	•	•
85. G.K.Power Products Co., Ltd.	GKP	Manufacture equipment for electricity system	•	•	•	•	•	•
86. GAP Supply Co., Ltd.	GAP	Manufacture equipment for electricity system	•	-	-	-	-	-
87. K.N.P. Supply Co., Ltd.	KNP	Distribute equipment for electricity system	•	•	•	•	•	•
88. GSAP Supply Co., Ltd.	GSAP	Distribute equipment for electricity system	•	-	-	-	-	-
89. RSAP Supply Co., Ltd.	RSAP	Distribute equipment for electricity system	•	-	-	-	-	-



Company	Abbreviation	Business group / Company	Economic	Social ⁽¹⁾	Environment			
					Greenhouse gas	Energy	Water	Waste
Other Business								
90. G.K. Hemp Group Co., Ltd.	GKHG	Invest in companies that operates hemp and cannabis business	•	•	-	-	-	-
91. G.K. Smart Farming Co., Ltd.	GKSF	Hemp and Cannabis business	•	•	-	-	-	-
92. G.K. Bio Extraction Co., Ltd.	GKBE	Hemp and Cannabis business	•	•	-	-	-	-
93. THCG Group Co., Ltd.	THCG	Hemp and Cannabis business	•	-	-	-	-	-
94. Gunkul Training Center Co., Ltd.	GTRC	Educational, seminar management, and training management services	•	-	-	-	-	-
95. G.K. Real Estate (2564) Co., Ltd.	GKRE	Real estate business	•	-	-	-	-	-
96. Thai Stick Herb Co., Ltd. (Sold total amount of shares to THCG in 2023) ⁽²⁾	TSH	Hemp and Cannabis business	•	-	-	-	-	-

Remark:

⁽¹⁾ Society is human resource and occupational health safety information⁽²⁾ Associated Companies / Joint Venture



Sustainability Performance

Operating Results in Social Dimension

Employment Information

Operational Performance	Measurement	2020	2021	2022	2023
Total Number of Employees	Person	964	959	1,219	1,170
Number of Employees by Gender					
Number of Male Employees	Person	603	610	739	713
Percentage of Male Employees to Total Employees	Percentage	62.55	63.61	60.62	60.94
Number of Female Employees	Person	361	349	480	457
Percentage of Female Employees to Total Employees	Percentage	37.45	36.39	39.38	39.06
Number of Employees by Job Position Level					
Number of Senior Executives	Person	38	41	59	46
Percentage of Senior Executives to Total Employees	Percentage	3.94	4.28	4.84	3.93
Number of Male Senior Executives	Person	n/a	n/a	n/a	34
Percentage of Male Senior Executives to Total Employees	Percentage	n/a	n/a	n/a	2.91
Number of Female Senior Executives	Person	n/a	n/a	n/a	12
Percentage of Female Senior Executives to Total Employees	Percentage	n/a	n/a	n/a	1.03
Number of Department / Unit Managers	Person	65	71	87	93
Percentage of Department / Unit Managers to Total Employees	Percentage	6.74	7.40	7.14	7.95
Number of Male Department / Unit Managers	Person	n/a	n/a	n/a	68
Percentage of Male Department / Unit Managers to Total Employees	Percentage	n/a	n/a	n/a	5.81
Number of Female Department / Unit Managers	Person	n/a	n/a	n/a	25
Percentage of Female Department / Unit Managers to Total Employees	Percentage	n/a	n/a	n/a	2.14
Number of Section / Unit Supervisors	Person	114	117	143	137
Percentage of Section / Unit Supervisors to Total Employees	Percentage	11.83	12.20	11.73	11.71



Operational Performance	Measurement	2020	2021	2022	2023
Number of Male Section / Unit Supervisors	Person	n/a	n/a	n/a	87
Percentage of Male Section / Unit Supervisors to Total Employees	Percentage	n/a	n/a	n/a	7.44
Number of Female Section / Unit Supervisors	Person	n/a	n/a	n/a	50
Percentage of Female Section / Unit Supervisors to Total Employees	Percentage	n/a	n/a	n/a	4.27
Number of Entry to Mid-Level Staff	Person	476	509	646	644
Percentage of Middle-Level Staff to Total Employees	Percentage	49.38	53.08	52.99	55.04
Number of Male Middle-Level Staff	Person	n/a	n/a	n/a	369
Percentage of Male Middle-Level Staff to Total Employees	Percentage	n/a	n/a	n/a	31.54
Number of Female Middle-Level Staff	Person	n/a	n/a	n/a	275
Percentage of Female Middle-Level Staff to Total Employees	Percentage	n/a	n/a	n/a	23.50
Number of Operational Level Employees	Person	271	221	284	250
Percentage of Operational Level Employees to Total Employees	Percentage	28.11	23.04	23.30	21.37
Number of Male Operational Level Employees	Person	n/a	n/a	n/a	155
Percentage of Male Operational Level Employees to Total Employees	Percentage	n/a	n/a	n/a	13.25
Number of Female Operational Level Employees	Person	n/a	n/a	n/a	95
Percentage of Female Operational Level Employees to Total Employees	Percentage	n/a	n/a	n/a	8.12
Number of Employees by Age					
Number of Employees Under 30 Years Old	Person	292	309	410	362
Percentage of Employees Under 30 Years Old to Total Employees	Percentage	30.29	32.22	33.63	30.94
Number of Male Employees Under 30 Years Old	Person	n/a	n/a	n/a	221
Percentage of Male Employees Under 30 Years Old to Total Employees	Percentage	n/a	n/a	n/a	18.89
Number of Female Employees Under 30 Years Old	Person	n/a	n/a	n/a	141
Percentage of Female Employees Under 30 Years Old to Total Employees	Percentage	n/a	n/a	n/a	12.05
Number of Employees Aged 30-50 Years	Person	608	574	701	691
Percentage of Employees Aged 30-50 Years to Total Employees	Percentage	63.07	59.85	57.51	59.06



Operational Performance	Measurement	2020	2021	2022	2023
Number of Male Employees Aged 30-50 Years	Person	n/a	n/a	n/a	426
Percentage of Male Employees Aged 30-50 Years to Total Employees	Percentage	n/a	n/a	n/a	36.41
Number of Female Employees Aged 30-50 Years	Person	n/a	n/a	n/a	265
Percentage of Female Employees Aged 30-50 Years to Total Employees	Percentage	n/a	n/a	n/a	22.65
Number of Employees Over 50 Years Old	Person	64	76	108	117
Percentage of Employees Over 50 Years Old to Total Employees	Percentage	6.64	7.92	8.86	10.00
Number of Male Employees Over 50 Years Old	Person	n/a	n/a	n/a	66
Percentage of Male Employees Over 50 Years Old to Total Employees	Percentage	n/a	n/a	n/a	5.64
Number of Female Employees Over 50 Years Old	Person	n/a	n/a	n/a	51
Percentage of Female Employees Over 50 Years Old to Total Employees	Percentage	n/a	n/a	n/a	4.36
Number of Employees by Generation					
Number of Baby Boom Generation Employees	Person	n/a	n/a	n/a	14
Percentage of Baby Boom Generation Employees to Total Employees	Percentage	n/a	n/a	n/a	1.20
Number of Generation X Employees	Person	n/a	n/a	n/a	207
Percentage of Generation X Employees to Total Employees	Percentage	n/a	n/a	n/a	17.69
Number of Generation Y Employees	Person	n/a	n/a	n/a	808
Percentage of Generation Y Employees to Total Employees	Percentage	n/a	n/a	n/a	69.06
Number of Generation Z Employees	Person	n/a	n/a	n/a	141
Percentage of Generation Z Employees to Total Employees	Percentage	n/a	n/a	n/a	12.05
Number of Employees by Employment Type					
Number of Permanent Employees	Person	791	835	1,033	998
Percentage of Permanent Employees to Total Employees	Percentage	82.05	87.07	84.74	85.30
Number of Contract Employees	Person	173	124	186	172
Percentage of Contract Employees to Total Employees	Percentage	17.95	12.93	15.26	14.70
Number of Vulnerable Group Employees					
Number of Disabled / Impaired Employees	Person	7	8	11	7
Percentage of Disabled / Impaired Employees to Total Employees	Percentage	0.73	0.83	0.90	0.60



Operational Performance	Measurement	2020	2021	2022	2023
Number of Elderly Employees	Person	6	8	11	12
Percentage of Elderly Employees to Total Employees	Percentage	0.62	0.83	0.90	1.03
Number of Employees by Ethnicity					
Number of Thai Nationality Employees	Person	916	914	1,161	1,116
Percentage of Thai Nationality Employees to Total Employees	Percentage	95.02	95.31	95.24	95.38
Number of Foreign Nationality Employees	Person	48	45	58	54
Percentage of Foreign Nationality Employees to Total Employees	Percentage	4.98	4.69	4.76	4.62
Number of Employees by Workplace Location					
Number of Employees Working at Main Office Buildings and Headquarters	Person	649	666	796	750
Percentage of Employees Working at Main Office Buildings and Headquarters to Total Employees	Percentage	67.32	69.45	65.30	64.10
Number of Employees Working Outside Main Office Buildings and Headquarters	Person	308	293	423	420
Percentage of Employees Working Outside Main Office Buildings and Headquarters to Total Employees	Percentage	31.95	30.55	34.70	35.90
Number of Employees by Education Level					
Number of Employees with High School Diploma/Equivalent or Lower	Person	422	371	505	495
Percentage of Employees with High School Diploma/Equivalent or Lower to Total Employees	Percentage	43.78	38.69	41.43	42.31
Number of Employees with Bachelor's Degree	Person	527	576	685	655
Percentage of Employees with Bachelor's Degree to Total Employees	Percentage	54.67	60.06	56.19	55.98
Number of Employees with Master's Degree	Person	12	15	21	16
Percentage of Employees with Master's Degree to Total Employees	Percentage	1.24	1.56	1.72	1.37
Number of Employees with Doctorate Degree	Person	3	6	8	4
Percentage of Employees with Doctorate Degree to Total Employees	Percentage	0.31	0.63	0.66	0.34



Employee Resignation Information

Operational Performance	Measurement	2020	2021	2022	2023
Total Number of Resigned Employees	Person	100	190	217	317
Overall Resignation Rate	Percentage	1.39	1.63	1.54	2.50
Number of Resigned Employees by Gender					
Number of Male Resigned Employees	Person	83	105	136	171
Percentage of Male Resigned Employees	Percentage	83.00	55.26	62.67	53.94
Number of Female Resigned Employees	Person	17	85	81	146
Percentage of Female Resigned Employees	Percentage	17.00	44.74	37.33	46.06

Maternity and Childcare Leave Information

Operational Performance	Measurement	2020	2021	2022	2023
Total Number of Employees Eligible for Maternity and Childcare Leave	Person	n/a	n/a	n/a	457
Number of Employees Utilizing Maternity and Childcare Leave	Person	n/a	n/a	n/a	3
Number of Employees Returning to Work After Utilizing Maternity and Childcare Leave	Person	n/a	n/a	n/a	3
Percentage of Employees Returning to Work After Utilizing Maternity and Childcare Leave	Percentage	n/a	n/a	n/a	100.00

New Hiring Information

Operational Performance	Measurement	2020	2021	2022	2023
Total Number of Newly Hired Employees	Person	220	185	433	361
New Hiring Rate	Percentage	1.90	1.84	3.53	2.62
Number of Newly Hired Employees by Gender					
Number of Male Newly Hired Employees	Person	148	112	244	206
Percentage of Male Newly Hired Employees	Percentage	67.27	60.54	56.35	57.06
Number of Female Newly Hired Employees	Person	72	73	189	155
Percentage of Female Newly Hired Employees	Percentage	32.73	39.46	43.65	42.94



Employee Care Information

Operational Performance	Measurement	2020	2021	2022	2023
Total Number of Employees Promoted	Person	16	18	34	29
Percentage of Employees Promoted to Total Employees	Percentage	1.66	1.88	2.79	2.48
Employees Promoted by Gender					
Number of Male Employees Promoted	Person	12	11	24	20
Percentage of Male Employees Promoted	Percentage	1.24	1.15	1.97	1.71
Number of Female Employees Promoted	Person	4	8	10	9
Percentage of Female Employees Promoted	Percentage	0.41	0.83	0.82	0.77
Employees Promoted by Position Level					
Number of Managerial Level Employees Promoted	Person	2	1	8	0
Percentage of Managerial Level Employees Promoted to Total Employees	Percentage	0.21	0.10	0.66	0.00
Number of Assistant Managers and Department Managers Promoted	Person	3	6	9	8
Percentage of Assistant Managers and Department Managers Promoted to Total Employees	Percentage	0.31	0.63	0.74	0.68
Number of Department / Unit Supervisors Promoted	Person	11	11	17	21
Percentage of Department / Unit Supervisors Promoted to Total Employees	Percentage	1.14	1.15	1.39	1.79
Satisfaction and Organizational Commitment Level					
Satisfaction and Organizational Commitment Level	Percentage	87.00	86.00	86.83	77.00
Percentage of Employees Responding to Satisfaction Surveys to Total Employees	Percentage	n/a	n/a	n/a	89.40
Employee Complaints about Labor Practices					
Number of Employee Complaints about Labor Practices	Case	0	0	0	0



Employee Compensation Information

Operational Performance	Measurement	2020	2021	2022	2023
Total Compensation of All Employees	Baht	n/a	n/a	n/a	728,467,025
Total Compensation of Employees by Gender					
Total Compensation of Male Employees	Baht	n/a	n/a	n/a	463,509,636
Percentage of Total Compensation of Male Employees to Total Compensation of All Employees	Percentage	n/a	n/a	n/a	63.63
Total Compensation of Female Employees	Baht	n/a	n/a	n/a	264,957,389
Percentage of Total Compensation of Female Employees to Total Compensation of All Employees	Percentage	n/a	n/a	n/a	36.37
Average Compensation of Employees					
Average Compensation of All Employees	Baht/Person	n/a	n/a	n/a	622,621.39
Average Compensation of Male Employees	Baht/Person	n/a	n/a	n/a	650,083.64
Average Compensation of Female Employees	Baht/Person	n/a	n/a	n/a	579,775.47
Ratio of Average Compensation between Female and Male Employees	Times	n/a	n/a	n/a	0.89
Employee Provident Fund					
Number of Employees Who are Members of the Provident Fund	Person	n/a	n/a	n/a	590.00
Percentage of Employees Who are Members of the Provident Fund	Percentage	n/a	n/a	n/a	50.43
Amount Contributed by the Company to the Provident Fund	Baht	n/a	n/a	n/a	20,516,489.02
Percentage of Company Contributions to the Provident Fund to Total Compensation of All Employees	Percentage	n/a	n/a	n/a	2.82



Employee Development Information

Operational Performance	Measurement	2020	2021	2022	2023
Number of Training Sessions					
Total Budget for Training Sessions	Million Baht	3.15	2.00	1.20	3.63
Number of Training Courses	Course	135	111	95	122
Total Hours of Training	Hour	12,754	4,805	6,843	9,471
Number of Employees Who Received Training	Person	1,022	1,371	1,609	1,625
Average Training Hours per Employee	Hour/person/year	13.23	5.01	5.61	8.09
Average Training Hours per Employee by Level					
Total Training Hours for Senior Executives and Board Members	Hour	874.00	899.54	841.00	923.50
Average Training Hours per Senior Executive and Board Member	Hour/person/year	23.00	21.94	14.25	20.08
Total Training Hours for Assistant Managers and Department Managers	Hour	390.00	653.20	893.00	945.50
Average Training Hours per Assistant Manager and Department Manager	Hour/person/year	6.00	9.20	10.26	10.17
Total Training Hours for Department / Unit Supervisors	Hour	684.00	865.80	1,102.00	1,289.50
Average training hours per head for Department / Unit Supervisors	Hour/person/year	6.00	7.40	7.71	9.41
Training Hours for Junior to Mid-Level Staff	Hour	3,332.00	3,008.19	964.00	5,223.50
Average Training Hours per Head for Junior to Mid-Level Staff	Hour/person/year	7.00	5.91	1.49	8.11
Training Hours for Operational Level Employees	Hour	1,355.00	267.41	64.00	1,089.00
Average Training Hours per Head for Operational Level Employees	Hour/person/year	5.00	1.21	0.23	4.36



Occupational Health and Safety Information

Operational Performance	Measurement	2020	2021	2022	2023
Number of Accidents	Case	n/a	2	17	26
Number of Accidents Causing Work Stoppage Exceeding 3 Days	Case	0.00	0	4	2
Rate of Injuries Causing Work Stoppage Exceeding 3 Days	Case per million hours worked	n/a	n/a	1.44	0.72
Maximum Consecutive Accident-Free Days	Day	2,134	2,416	2,707	2,994
Number of Fatalities from Work-Related Incidents					
Number of Employees Fatalities from Work-Related Incidents	Case	0	0	0	0
Number of Contractors Fatalities from Work-Related Incidents	Case	0	0	0	0
Number of Fatalities Due to Work-Related Diseases					
Number of Employees Fatalities Due to Work-Related Diseases	Case	0	0	0	0
Number of Contractors Fatalities Due to Work-Related Diseases	Case	0	0	0	0
Rate of illness and occupational diseases	Case per million hours worked	0.00	0.00	0.00	0.00



Operating Results in Environmental Dimension

Internal Energy Consumption within the Organization

Operational Performance	Measurement	2020	2021 ⁽¹⁾	2022	2023
Total Electricity Consumption of the Organization	Kilowatt-hour	n/a	3,683,180.17	4,225,136.47	3,837,076.52
Electricity Consumption from External Sources	Kilowatt-hour	n/a	3,580,399.76	4,126,854.02	3,746,174.52
Electricity Consumption from Renewable Energy Sources (GKA Solar Rooftop)	Kilowatt-hour	123,246.58	102,780.41	98,282.45	90,902.00
Percentage of Renewable Energy Usage	Percentage	n/a	2.79	2.33	2.37
Electricity Consumption from External Sources per Employee ⁽²⁾	Kilowatt-hour per person	n/a	3,733.47	3,385.44	3,201.86

Note:

⁽¹⁾ Performance results cover only the headquarters, energy business, and high-voltage equipment business group.

⁽²⁾ Adjusted the calculation basis for external electricity consumption per employee to cover the operations of employees working in the headquarters and energy business, engineering and turnkey business, and high-voltage equipment business group.

Internal Water Consumption Information

Operational Performance	Measurement	2020 ⁽¹⁾	2021 ⁽²⁾	2022	2023
Total Water Consumption of the Organization	Cubic meters	6,229.00	37,406.58	61,056.87	44,279.07
Water Consumption from External Sources	Cubic Meters	6,133.00	37,310.58	60,918.87	44,183.07
Volume of Tap Water Consumption	Cubic Meters	6,133.00	6,903.00	15,905.87	16,320.07
Volume of Groundwater Consumption	Cubic Meters	n/a	30,407.58	45,013.00	27,863.00
Recirculated Water Consumption	Cubic Meters	96.00	96.00	138.00	96.00
Percentage of Recirculated Water Consumption	Percentage	1.54	0.26	0.23	0.22
Volume of Tap Water Consumption per Employee ⁽³⁾	Cubic meters per person	n/a	7.20	13.05	13.95

Note:

⁽¹⁾ Performance results cover only the high-voltage equipment business group.

⁽²⁾ Performance results cover only the headquarters, energy business and high-voltage equipment business group.

⁽³⁾ Adjusted the calculation basis for water consumption per employee to cover the operations of employees working in the headquarters and energy business, engineering and turnkey business, and high-voltage equipment business group.



Waste Management Information

Operational Performance	Measurement	2020	2021	2022	2023
Quantity of Waste from Production Processes (Industrial Residue)⁽¹⁾					
Quantity of Waste from All Production Processes	Ton	194.87	166.79	253.29	51.79
Quantity of Non-Hazardous Waste	Ton	192.03	162.92	245.41	33.37
Percentage of Non-Hazardous Waste to Total Production Process Waste	Percentage	98.54	97.68	96.89	64.43
Quantity of Hazardous Waste	Ton	2.84	3.87	7.88	18.42
Percentage of Hazardous Waste to Total Production Process Waste	Percentage	1.46	2.32	3.11	35.57
Quantity of Waste Managed According to the 3Rs Principle	Ton	192.64	163.69	249.93	39.76
Percentage of Waste Managed According to the 3Rs Principle to Total Production Process Waste	Percentage	98.86	98.14	98.67	76.77
Quantity of Waste Sent to Landfill	Ton	2.23	3.10	3.36	12.03
Percentage of Waste Sent to Landfill to Total Production Process Waste	Percentage	1.14	1.86	1.33	23.23
Quantity of General Solid Waste (Office Waste)					
Total Quantity of General Solid Waste	Ton	n/a	n/a	143.21	150.71
Quantity of General Solid Waste Per Employee ⁽²⁾	Ton per person	n/a	n/a	0.117	0.129

Note:

⁽¹⁾ Performance results cover only the energy business group and high-voltage equipment business group.

⁽²⁾ Adjusted the calculation basis for general waste per employee to cover the operations of employees working in the headquarters and energy business, engineering and turnkey business, and high-voltage equipment business group.



Greenhouse gas emissions Information of the Organization

Operational Performance	Measurement	2020	2021 ⁽¹⁾	2022 ⁽²⁾	2023 ⁽³⁾
Quantity of Greenhouse Gas Emissions					
Total Greenhouse Gas Emissions of the Organization	Tons of carbon dioxide equivalent	n/a	2,386.78	5,445.00	13,634.00
Quantity of Greenhouse Gas Emissions, Scope 1	Tons of carbon dioxide equivalent	n/a	660.55	1,092.00	2,707.00
Quantity of Greenhouse Gas Emissions, Scope 2	Tons of carbon dioxide equivalent	n/a	1,393.99	1,439.00	1,874.00
Quantity of Greenhouse Gas Emissions, Scope 3	Tons of carbon dioxide equivalent	n/a	332.24	2,914.00	9,053.00
Quantity of Greenhouse Gas Emissions per Production Unit ⁽⁴⁾	Tons of carbon dioxide equivalent per Million Baht	n/a	n/a	n/a	1.4481
Quantity of Other Air Pollutants Emissions					
Quantity of Nitrogen Oxide, Sulfur Dioxide, and Other Air Pollutants Emissions	Kilogram	n/a	n/a	n/a	n/a

Note:

⁽¹⁾ The Company evaluated and disclosed greenhouse gas emission Information for the organization in the year 2021 for the first time, and the greenhouse gas emissions of the organization cover only the headquarters and energy business group.

⁽²⁾ Greenhouse gas emissions of the organization cover only the headquarters, energy business group, and engineering and turnkey business group.

⁽³⁾ Greenhouse gas emissions of the organization cover only the headquarters, energy business, engineering and turnkey business, and high-voltage equipment business group.

⁽⁴⁾ In the year 2023, the greenhouse gas emissions per unit of output for the headquarters and energy business group were adjusted from per unit of electricity produced (megawatt-hours) to per unit of revenue (million Baht) to align with performance measurement across all business groups.



GRI Content Index

Statement of use Gunkul Engineering Public Company Limited has reported in accordance with the GRI Standards for the period 1 January 2023 to 31 December 2023.

GRI 1 used GRI 1: Foundation 2021

Applicable GRI Sector Standard(s) None

GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
General disclosures						
GRI 2: General Disclosures 2021	2-1 Organizational details	page 5, 111, 56-1 One Report page 8, 22-23, 28				
	2-2 Entities included in the organization’s sustainability reporting	page 112 - 116				
	2-3 Reporting period, frequency and contact point	page 111, 129				
	2-4 Restatements of information	page 25				
	2-5 External assurance	page 111, 141				
	2-6 Activities, value chain and other business relationships	page 15				
	2-7 Employees	page 57, 61, 117-121				
	2-8 Workers who are not employees	page 119				
	2-9 Governance structure and composition	page 13, 56-1 One Report page 142, 146-148, 152 -154				



GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
	2-10 Nomination and selection of the highest governance body	56-1 One Report page 164-166				
	2-11 Chair of the highest governance body	56-1 One Report page 146				
	2-12 Role of the highest governance body in overseeing the management of impacts	56-1 One Report page 147-155				
	2-13 Delegation of responsibility for managing impacts	56-1 One Report page 152-154				
	2-14 Role of the highest governance body in sustainability reporting	page 13, 24, 111				
	2-15 Conflicts of interest	56-1 One Report page 149-150, 177-178				
	2-16 Communication of critical concerns	56-1 One Report page 149-150, 177-178				
	2-17 Collective knowledge of the highest governance body	56-1 One Report page 164-166				
	2-18 Evaluation of the performance of the highest governance body	56-1 One Report page 167-169				
	2-19 Remuneration policies	56-1 One Report page 171-173				
	2-20 Process to determine remuneration	56-1 One Report page 171-173				
	2-21 Annual total compensation ratio	-	a, b, c	Confidentiality constraints	Information is classified	
	2-22 Statement on sustainable development strategy	page 3				



GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
	2-23 Policy commitments	page 9-12				
	2-24 Embedding policy commitments	All chapter				
	2-25 Processes to remediate negative impacts	page 16-23				
	2-26 Mechanisms for seeking advice and raising concerns	page 16-23, 36				
	2-27 Compliance with laws and regulations	page 31-40, 56-1 One Report page 89-90				
	2-28 Membership associations	page 34				
	2-29 Approach to stakeholder engagement	page 16-23				
	2-30 Collective bargaining agreements	page 57				
Material topics						
GRI 3: Material Topics 2021	3-1 Process to determine material topics	page 24				
	3-2 List of material topics	page 25-28				
Economic performance						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 9-10, 73-75				
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	page 15, 85-88, 56-1 One Report page 9				
	201-2 Financial implications and other risks and opportunities due to climate change	page 38-41, 56-1 One Report page 80-81, 90-91				
	201-3 Defined benefit plan obligations and other retirement plans	-	a, b, c, d, e	Confidentiality constraints	Information is classified	
	201-4 Financial assistance received from government	56-1 One Report page 69				



GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
Indirect economic impacts						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 85				
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	page 85-88, 56-1 One Report page 30-41, 54-57, 58-61, 62-68				
	203-2 Significant indirect economic impacts	56-1 One Report page 41-54, 57-58, 61-62, 68				
Procurement practices						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 42				
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	page 48				
Anti-corruption						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 34-35				
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	page 33-37				
	205-2 Communication and training about anti-corruption policies and procedures	page 33				
	205-3 Confirmed incidents of corruption and actions taken	page 33				
Anti-competitive behavior						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 34-35				
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	page 33				



GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
Tax						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 49				
GRI 207: Tax 2019	207-1 Approach to tax	page 49				
	207-2 Tax governance, control, and risk management	page 38-40, 49-50				
	207-3 Stakeholder engagement and management of concerns related to tax	page 49-50				
	207-4 Country-by-country reporting	56-1 One Report page 270				
Energy						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 100				
GRI 302: Energy 2016	302-1 Energy consumption within the organization	page 101-102, 126				
	302-2 Energy consumption outside of the organization	page 101-102, 126				
	302-3 Energy intensity	page 101-102, 126				
	302-4 Reduction of energy consumption	page 100-102				
	302-5 Reductions in energy requirements of products and services	-	a, b, c	Information unavailable/incomplete	We do not track reductions in energy of products and services.	



GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
Water and effluents						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 103				
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	page 92, 103-104				
	303-2 Management of water discharge-related impacts	page 92				
	303-3 Water withdrawal	page 105-106, 126				
	303-4 Water discharge	-	a, b, c, d, e	Information unavailable/incomplete	Information is unavailable.	
	303-5 Water consumption	page 105-106, 126				
Biodiversity						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 94				
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	-	a	Information unavailable/incomplete	Information is unavailable.	
	304-2 Significant impacts of activities, products and services on biodiversity	-	a, b	Information unavailable/incomplete	Information is unavailable.	
	304-3 Habitats protected or restored	-	a, b, c, d	Not applicable	Information is not applicable.	
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	-	a	Not applicable	Information is not applicable.	



GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
Emissions						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 95-97				
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	page 98-99, 128				Yes
	305-2 Energy indirect (Scope 2) GHG emissions	page 98-99, 128				Yes
	305-3 Other indirect (Scope 3) GHG emissions	page 98-99, 128				Yes
	305-4 GHG emissions intensity	page 98-99, 128				Yes
	305-5 Reduction of GHG emissions	page 96, 98-99, 128				
	305-6 Emissions of ozone-depleting substances (ODS)	-	a, b, c, d	Not applicable	We do not have ozonedepleting substances in our operations.	
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	page 128				
Waste						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 107				
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	page 107-109				
	306-2 Management of significant waste-related impacts	page 107-109				
	306-3 Waste generated	page 108-109, 127				
	306-4 Waste diverted from disposal	page 107-109, 127				
	306-5 Waste directed to disposal	page 107-109, 127				



GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
Supplier environmental assessment						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 42				
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	page 42, 45				
	308-2 Negative environmental impacts in the supply chain and actions taken	page 42-48				
Employment						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 56-57				
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	page 58, 60-61, 121				
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	page 59				
	401-3 Parental leave	page 121				



GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
Occupational health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 68				
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	page 68-72				
	403-2 Hazard identification, risk assessment, and incident investigation	page 69-70				
	403-3 Occupational health services	page 68-72				
	403-4 Worker participation, consultation, and communication on occupational health and safety	page 68-72				
	403-5 Worker training on occupational health and safety	page 63, 71				
	403-6 Promotion of worker health	page 59				
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	page 69-71				
	403-8 Workers covered by an occupational health and safety management system	page 72, 112-116				
	403-9 Work-related injuries	page 72, 125				
	403-10 Work-related ill health	page 72, 125				



GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
Training and education						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 61				
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	page 62, 67, 124				
	404-2 Programs for upgrading employee skills and transition assistance programs	page 61-67				
	404-3 Percentage of employees receiving regular performance and career development reviews	page 67, 122, 124				
Diversity and equal opportunity						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 52				
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	page 117-120				
	405-2 Ratio of basic salary and remuneration of women to men	page 123				
Non-discrimination						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 52				
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	page 52				
Freedom of association and collective bargaining						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 42				
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, 45				



GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
Child labor						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 42				
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	page 45 , 56-1 One Report page 90				
Forced or compulsory labor						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 42				
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	page 45, 56-1 One Report page 90				
Rights of indigenous peoples						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 52				
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	page 52				
Local communities						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 79				
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	page 22, 79-84				
	413-2 Operations with significant actual and potential negative impacts on local communities	page 79, 84				
Supplier social assessment						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 42				
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	page 42, 45				
	414-2 Negative social impacts in the supply chain and actions taken	page 42-48				



GRI Standard	Disclosure	Location	Omission			External Assurance
			Requirement(S) Omitted	Reason	Explanation	
Customer health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 73-75				
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	page 73-78				
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	page 31, 78				
Marketing and labeling						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 73-75				
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	page 73-75, 77				
	417-2 Incidents of non-compliance concerning product and service information and labeling	page 31, 78				
	417-3 Incidents of non-compliance concerning marketing communications	page 31, 78				
Customer privacy						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 52				
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	page 52				



Assurance Statement

The Company operates the business with transparent, accuracy, 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 head office and energy business, engineering and turnkey business, and high-voltage equipment business. The Company has been verified at a limited confidence level by an expert on March 15, 2024 (head office, energy business, and engineering and turnkey business). And on March 6, 2024 (high-voltage equipment business) 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, 2023 to December 31, 2023.

Head office and Energy Business, Engineering and Turnkey Business

High-Voltage Equipment Business



Greenhouse Gases Verification Statement
Awarded to

GUNKUL ENGINEERING PUBLIC COMPANY LIMITED

1177, 8th Fl., Pearl Bangkok Building,
Phaholyothin Rd., Phaya Thai, Phaya Thai, Bangkok 10400, Thailand

For Organisation Boundaries
Covering

Headquarter Office : Gunkul Engineering Public Company Limited
Solar Power Plant : NK Power Solar Co., Ltd., Solar Energy Society Co., Ltd.,
Gunkul Solar Roof 1 Co., Ltd., Bang Nopon 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.,
Korea Wind Energy Co., Ltd.,
Engineering and Turnkey : Gunkul Power Development Co., Ltd., Future Electrical Control Co., Ltd.,
Future Power Construction Co., Ltd., GPD & TEELC joint-venture Co., Ltd.,
Subsidiaries Project : 31 Projects Subsidiaries under (GPD/VEG/EPC/JV, GPD&TEELC)

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

ISO 14064 - 1: 2018
SCOPE OF CERTIFICATION

DIRECT EMISSION: 2,166 tons CO₂-equivalent
ENERGY INDIRECT EMISSION: 1,362 tons CO₂-equivalent
OTHER INDIRECT EMISSION: 3,206 tons CO₂-equivalent
EMISSIONS DUE TO BIOMASS COMBUSTION: 165 tons CO₂-equivalent

REPORTING YEAR: 1st JANUARY 2023 TO 31st DECEMBER 2023¹
LEVEL OF ASSURANCE: LIMITED

To check this certificate validity please call: +66 2 870 4800
Further clarifications regarding the scope of this verification certificate and the applicability of the ISO 14064-1:2018 requirements may be obtained by consulting the organization.

Certificate Number: THAILAND/GHG/2024/034 Date: 15 March 2024



Mr. Saravut Suparatnatchatpun
Deputy Certification Manager

Certification / Managing Office Address: Bureau Veritas Certification (Thailand) 10th Floor, Bangkok, Tonn: 2170 New Prachin Road, Bangkok, Huaykong, Bangkok 10110, Thailand.
1. Verification is conducted based on The terms of Greenhouse Gas report



Greenhouse Gases Verification Statement
Awarded to

G.K. ASSEMBLY CO., LTD

110/9-10 Maha Sawat, Bang Krui District, Nonthaburi 11130, Thailand.

For Organisation Boundaries
Covering

Headquarter office & Plant : G.K. Assembly Co., Ltd.
Headquarter office & Plant 1, Plant 2 : G.K. Power Products Co., Ltd.
Headquarter office & Plant 1, Plant 2 : K.N.P. Supply Co., Ltd.

Bureau Veritas Certification has carried out the verification of the quantity of Greenhouse Gas emissions of the above organization as per ISO 14064-3:2019. The Greenhouse Gas emission quantification and reporting is found to be in accordance with the requirements of the standard detailed below

ISO 14064 - 1: 2018
SCOPE OF CERTIFICATION

DIRECT EMISSION: 601 tons CO₂-equivalent
ENERGY INDIRECT EMISSION: 512 tons CO₂-equivalent
INDIRECT EMISSION: 5,847 tons CO₂-equivalent
EMISSIONS DUE TO BIOMASS COMBUSTION: 15 tons CO₂-equivalent

REPORTING YEAR: 1st JANUARY 2023 TO 31st DECEMBER 2023¹
LEVEL OF ASSURANCE: LIMITED

To check this certificate validity please call: +66 2 870 4800
Further clarifications regarding the scope of this verification certificate and the applicability of the ISO 14064-1:2018 requirements may be obtained by consulting the organization.

Certificate Number: THAILAND/GHG/2024/021 Date: 6 March 2024



Mr. Saravut Suparatnatchatpun
Deputy Certification Manager

Certification / Managing Office Address: Bureau Veritas Certification (Thailand) 10th Floor, Bangkok, Tonn: 2170 New Prachin Road, Bangkok, Huaykong, Bangkok 10110, Thailand.
1. Verification is conducted based on The terms of Greenhouse Gas report

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