

GUNKUL
not only the energy, we care

RESILIENCE REDEFINED THROUGH
T R A N S F O R M A T I O N



Sustainability Report 2024

Contents

Overview

Message from the Chief Executive Officer	3
Overview	5
GUNKUL Business	6
Key Sustainability Information	7
Sustainability Awards and Achievements	8

GUNKUL and Sustainability Management

Sustainable Development Policy	10
Sustainability Management Goals and Strategies	10
Sustainability Operational Structure	15

GUNKUL and the Management of Impacts on Stakeholders in the Business Value Chain

Business Value Chain	17
Analysis of Stakeholders in the Business Value Chain	18
Materiality Assessment	25

GUNKUL and the Implementation of Sustainability Goals

For a Growing Business

Good Corporate Governance	36
Anti-Corruption	38
Risk and Crisis Management	43
Supply Chain Management	47
Tax Management	54

For a Livable Society

Human Rights Management	57
Human Resource Management	63
Occupational Health and Safety Management	75
Customer Relationship Management	82
Community and Social Responsibility	87
Business Innovation for Social Creation	94

For a Sustainable Environment

Environmental Responsibility	98
Climate Actions	103
Energy Management	110
Water Management	113
Efficient Resource Use and Pollution Management	120

About this Report

About this Report	125
Scope of Reporting	126
Sustainability Performance	131
GRI Content Index	143
External Verification	151

Message from the Chief Executive Officer



(Dr. Somboon Aueatchasai)

Chief Executive Officer

In the past year of 2024, we have overcome significant challenges, along with a clear commitment to fostering sustainable growth while being responsible towards society and the environment. Accordingly, we operate with a vision to develop strong and sustainable infrastructure, emphasizing our involvement in addressing social and environmental issues and responding to global changes such as climate change, biodiversity, geopolitics, and investment decisions that take sustainability factors into account. These are matters we are fully aware of and act upon seriously under the commitment “Not only the energy, We care” in striving to develop our business to grow steadily while preserving natural resources and promoting well-being of all our stakeholders in a balanced way. This is how we aim to lead GUNKUL towards sustainable growth in all dimensions – economically, socially, and environmentally.



We are committed to growth in the sustainable renewable energy business, developing environmentally friendly energy solutions to drive the transition to a low-carbon society. Accordingly, we have developed and expanded solar and wind power plant projects, with a total renewable energy production capacity of over 1,500 megawatts across 4 countries. We also aim to increase this capacity to 2,000 megawatts within the next 5 years. In the Engineering and Turnkey business, we have enhanced our EPC (Engineering, Procurement, and Construction) services for renewable energy power plant projects. In 2024, we provided construction services for a large-scale solar farm project with a capacity of 62 megawatts in supporting the industrial sector's use of renewable energy and driving the transition from traditional energy sources to new energy forms. Our project development aligns with biodiversity protection requirements and policies. Moreover, to raise awareness and reduce greenhouse gas emissions from organizational activities, we have studied and developed short-term greenhouse gas reduction targets, as well as long-term goals towards Net Zero by joining the Achieve Climate Action Set a challenging target to Net Zero program by the Stock Exchange of Thailand to adopt the Science Based Targets initiative (SBTi) principles to enhance the establishment of goals and action plans for reducing greenhouse gas emissions, ensuring sustainable development in our business operations.

We promote social development and engagement by focusing on social development in multiple dimensions, alongside

creating justice and equal opportunities both within the organization and society. This also includes supporting the development of a sustainable supply chain network, which not only benefits the business but also creates a positive impact on society as a whole. By that, we promote environmentally friendly procurement practices and support the reduction of greenhouse gas emissions within the supply chain, while also developing innovations and high-quality products to meet customer needs effectively. Moreover, we develop technologies and innovations to produce modern, sustainable, and affordable energy for consumers with operational strategy based on 3 main areas: 1) Enhancing business capabilities by collaborating with business partners to create efficient and rapid new energy business models 2) Developing people by enhancing employees' skills and potential to tackle new opportunities and challenges, and 3) Applying cutting-edge technologies to develop the electricity grid into a Digital Grid that enhances operational efficiency and energy sustainability in the future.

We are committed to the principles of good corporate governance and business ethics as a fundamental foundation for operations, ensuring that work at all levels meets standards with transparency, accountability, and sustainability. In 2024, we were assessed by SET ESG Ratings and achieved an AA rating. As well, we received the highest score in good corporate governance and were awarded the "Excellent" rating by the Thai Institute of Directors. Moreover, we were honored with the Role Model Organization in Human Rights Award in the large-

scale business organization category at the Outstanding level, reflecting our vision and commitment to conducting business under the principle of respecting human rights and promoting sustainable growth alongside stakeholders with good governance. We also aim to foster social and environmental stability, ensuring that every decision and action has a positive long-term impact on society.

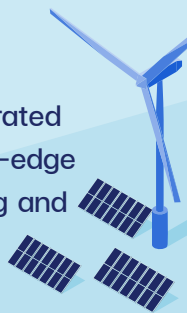
On behalf of the Board of Directors, management, and employees of Gunkul Engineering Public Company Limited, we are confident in our potential and readiness to drive this significant transformation. We are committed to collaborating with all sectors for sustainable growth, and we would like to express our gratitude to all stakeholders for their support and trust in our vision. We will continue moving forward to deliver clean energy and create a sustainable future for everyone.



Overview

Vision

A leader in renewable energy business, integrated electrical equipment and systems with cutting-edge technology and innovation to develop a strong and sustainable infrastructure.



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

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-edgetechnology 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.

GUNKUL Business

Business Overview

Join GUNKUL a leader in renewable energy and clean energy innovations, as we drive the world toward a sustainable future.



Energy for Sustainability

Generate and supply electricity from clean energy sources, including solar and wind power in both domestic and international markets, reducing greenhouse gas emissions and addressing climate change challenges

Create a business ecosystem through innovative solutions, enhancing business value, expanding opportunities for the company and its partners, and broadening the customer base.

Provide comprehensive consulting services on renewable energy solutions, continuously seeking new opportunities to reinforce our leadership in the sustainable energy industry.



Engineering and Turnkey Solutions

Offer end-to-end engineering services, from design, procurement, installation, and construction to maintenance.

Cover a wide range of projects, including **renewable power plants, substations, transmission systems, underground power systems, submarine cables, microgrids, energy storage systems, and smart energy solutions.**

Strengthen energy infrastructure with cutting-edge technology, ensuring resilience and readiness to meet the future energy demands.



High-Voltage Electrical Equipment

Manufacture, procure, and supply electrical system equipment, covering substations, medium-to-high voltage transmission systems (115 kV), grounding systems, and power distribution equipment.

Offer innovative lighting solutions, specialized tools, personal protective equipment (PPE), and a complete range of energy-saving and alternative energy products.

Enhance quality of life and safety with international-standard solutions, catering to the needs of businesses both domestically and internationally.

With a vision to lead the renewable energy and clean energy innovation industry, we are committed to building a sustainable world and enhancing the quality of life for all

Key Sustainability Information

Not only the Energy, We Care

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

For a Growing Business

We care Business

- ✓ No cases of business ethics violations or complaints
- ✓ Assessment results of corporate governance for listed companies (CGR) are rated as **excellent**
- ✓ No cases of corruption complaints
- ✓ **100%** of critical suppliers have been assessed on sustainability, covering economic, social, and environmental (ESG) issues
- ✓ Promotes environmentally friendly procurement (recycled plastic pellets) at **0.79%** of total purchase value
- ✓ Promotes local procurement (within the country) at **88.35%** of total purchase value

For a Livable Society

We care People

- ✓ No cases related to non-compliance with labor standards or human rights violations
- ✓ **687** male employees (60.26%)
- ✓ **453** female employees (39.74%)
- ✓ Employment of **9** disabled persons
- ✓ Employment of **6** elders
- ✓ Employee satisfaction and engagement with the organization was **74.00%** decreased by 3.00%
- ✓ Average training hour was **13.28** hours/ person/ year
- ✓ **44** employees have been promoted
- ✓ Lost Time Injury Rate (LTIR) of employees was **0.74** and of contractors was **1.85** (per one million hours worked)
- ✓ Customer satisfaction with products and services was **89.21%** increased by 0.05%
- ✓ Overall community satisfaction and engagement was **84.31%** increased by 0.65%

For a Sustainable Environment

We care Social

- ✓ Contributed to reducing the country's greenhouse gas emissions by **384,656.67** tCO₂e from electricity generation using renewable energy, amounting to **769,467.23** megawatt-hours
- ✓ Total amount of Renewable Energy Certificates (RECs) produced was **581,026.74** RECs
- ✓ Greenhouse gas emissions from the organization's activities amounted to **28,741** tCO₂e
- ✓ Total electricity consumption of the organization was **3,573.38** megawatt-hours
- ✓ External electricity consumption decreased by **6.66%**
- ✓ Total water usage within the organization was **39,095.72** cubic meters
- ✓ External water usage decreased by **11.73%**
- ✓ Amount of waste from the production process was **157.99 tons**
- ✓ Amount of waste managed according to the 3Rs principle was **157.63 tons** (99.77%)
- ✓ Promotes the use of environmentally friendly raw materials at **8.22%** in the production of high-voltage electrical equipment

Sustainability Awards and Achievements

Assessed with a SET ESG Rating of “AA”

for the 2nd consecutive year and selected as a Sustainable Stock (Thailand Sustainability Investment) for the 4th consecutive year by the Stock Exchange of Thailand. GUNKUL places great importance on and views ESG as a key driver for sustainable business growth.



Received an “Excellent” or “5-Star” Corporate Governance Assessment (CG)

and maintained “Excellent” ratings in all categories for the 8th consecutive year from the Thai Institute of Directors (IOD). This achievement reflects GUNKUL’s commitment to maintaining high standards of corporate governance and transparent information disclosure.



Rated “Excellent” with a score 100 points from the Quality Assessment of the Shareholders’ meeting (AGM Checklist),

for the 6th consecutive year by the Thai Investors Association. This reflects GUNKUL’s commitment to maintaining and continuously improving the effectiveness of shareholders’ meeting to meet higher standards each year, while treating shareholders equally and fairly.



Received the Sustainability Disclosure Recognition Award

from Thaipat Institute under the Sustainability Disclosure Community (SDC), reflecting the commitment to transparently disclose sustainability information, covering economic, social, and environmental aspects.



Received the “Outstanding” Human Rights Organization Award in the Business Sector (Large Scale)

for the 2nd consecutive year from the Department of Rights and Liberties Protection, Ministry of Justice. This reflects the vision and commitment to conducting business under the principles of respecting human rights and adopting ESG principles as the framework for transparent and ethical business operations.



GUNKUL and Sustainability Management

Sustainable Development Policy	10
Sustainability Management Goals and Strategies	10
Sustainability Operational Structure	15



Sustainable Development Policy

The Company operates its business with a strong commitment to good governance principles, with social and environmental responsibility as the fundamental basis for driving the growth of renewable energy and integrated electricity systems sustainably. This is achieved through the development of advanced technology and innovations, as well as the enhancement of infrastructure to strengthen long-term resilience for society, build trust with stakeholders, and promote the stability of renewable energy in the future.

The Company has established a Sustainable Development policy to serve as a guideline and best practice for conducting business activities that can grow steadily in the long term without depleting natural resources or creating negative impacts on the environment and society. The Company also focuses on communicating and engaging with all stakeholders to foster acceptance and elevate the development of the business value chain collaboratively. Additionally, the Company has determined to review and update this policy annually to align with the business context and international sustainability standards. This policy is communicated to employees at all levels throughout the organization through information disclosure, public relations, and training, ensuring that all employees can implement it effectively and grow alongside all stakeholders sustainably.

 Read more about [Sustainable Development Policy](#)

Sustainability Management Goals and Strategies

The Company's sustainable development goals and strategies are driven under the commitment "Not only the energy, We care" that focus on developing clean energy innovations that are environmentally friendly, alongside the preservation of natural resources, and promoting a good quality of life for all stakeholders in a balanced way. In order to achieve such goals, the Company has determined strategic framework consists of 3 pillars: We care Business, We care People, and We care Social, covering issues in the economic, social and environmental dimensions under good corporate governance as a framework for sustainable business development, as follows:



Not only the energy, We care

We care Business

Commitment

Develop the business to grow steadily and sustainably with transparency, ethics, and good governance, while effectively managing risks.



Operations

- Create transparency in operations by adhering to good governance principles and business ethics.
- Manage risks to reduce impacts, expand business, and seek opportunities to add value to the business for the stable and sustainable returns of all stakeholders.
- Commit to developing products and services to meet customer needs and improve the quality of life in society sustainably.
- Build cooperation with business partners and suppliers to source, improve, and develop efficient and environmentally friendly integrated electrical system products.
- Promote sustainable investment to develop and expand the energy business both domestically and internationally, and support investments in future energy businesses.
- Source and develop modern energy technologies and innovations to promote efficient and widespread use of renewable energy for society.
- Expand construction businesses related to electrical systems and associated equipment, including both overhead and underground transmission lines, and increase involvement in underwater cable projects to generate sustainable growth in revenue.

We care People

Commitment

Create a strong and livable society by giving equal importance to all stakeholders, treating them fairly and without discrimination, with respect for human rights.



Operations

- Create a strong “GROWTH” culture, develop the collaborative behavior of all personnel to focus on a shared goal, emphasizing effective results, and believing in the power of cooperation to drive organizational success.
- Enhance skills of employees to achieve organizational goals, making them “competent in their work, self-reliant, capable of leading others, and skilled in team management.”
- Treat workers with equality and fairness, creating an environment that promotes equality and acceptance of diversity, so everyone has the opportunity to grow and develop fully in the workplace.
- Prioritize health by creating an environment focused on occupational health and safety.
- Take care of and deliver high-quality products and services to customers.
- Promote career creation in communities around power plants and foster employee involvement with community networks to support local activities for balanced coexistence.
- Develop renewable energy power plants as learning centers for communities and society.

We care Social

Commitment

Drive the transition to a low-carbon economy and sustainably solve environmental issues with “clean energy” to create balance for the world.



Operations

- 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 is one of the basic rights that everyone should have equal access to.
- Manage the environment sustainably by using production resources efficiently according to the principles of a circular economy, and strive to achieve zero waste sent to landfills.
- Strengthen cooperation with external entities such as governments, international organizations, and business partners to reduce environmental impacts and support the development of renewable energy infrastructure at both national and international levels, through knowledge and technology exchange to drive sustainable development.

Supporting Sustainable Development Goals (SDGs)

The Company recognizes the importance of responsibility in driving the business in line with the Sustainable Development Goals (SDGs) of the United Nation, and is committed to operating its business towards achieving sustainable development through supporting economic growth, social inclusion, and environmental protection which are the key components for sustainable development.

Accordingly, the Company has determined sustainable development goals that are consistent with business strategies, respond to organizational goals and expectations of stakeholders in a balanced manner. The Company supports and implements all 11 sustainable development goals and uses them as a framework to create positive impacts on the economy, society, and environment. This aligns with the Company's vision, which aims to create stability and sustainability in renewable energy for a sustainable future.



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 are things that the Company places importance on. 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. (3.4, 3.6)



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)



Goal 13 : 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, refrains from unnecessary deforestation, promoting the restoration of degraded forests, increasing reforestation and forest restoration (15.2) to be a part of protecting ecosystems and biodiversity.



Goal 16 : Peace, Justice, and Security

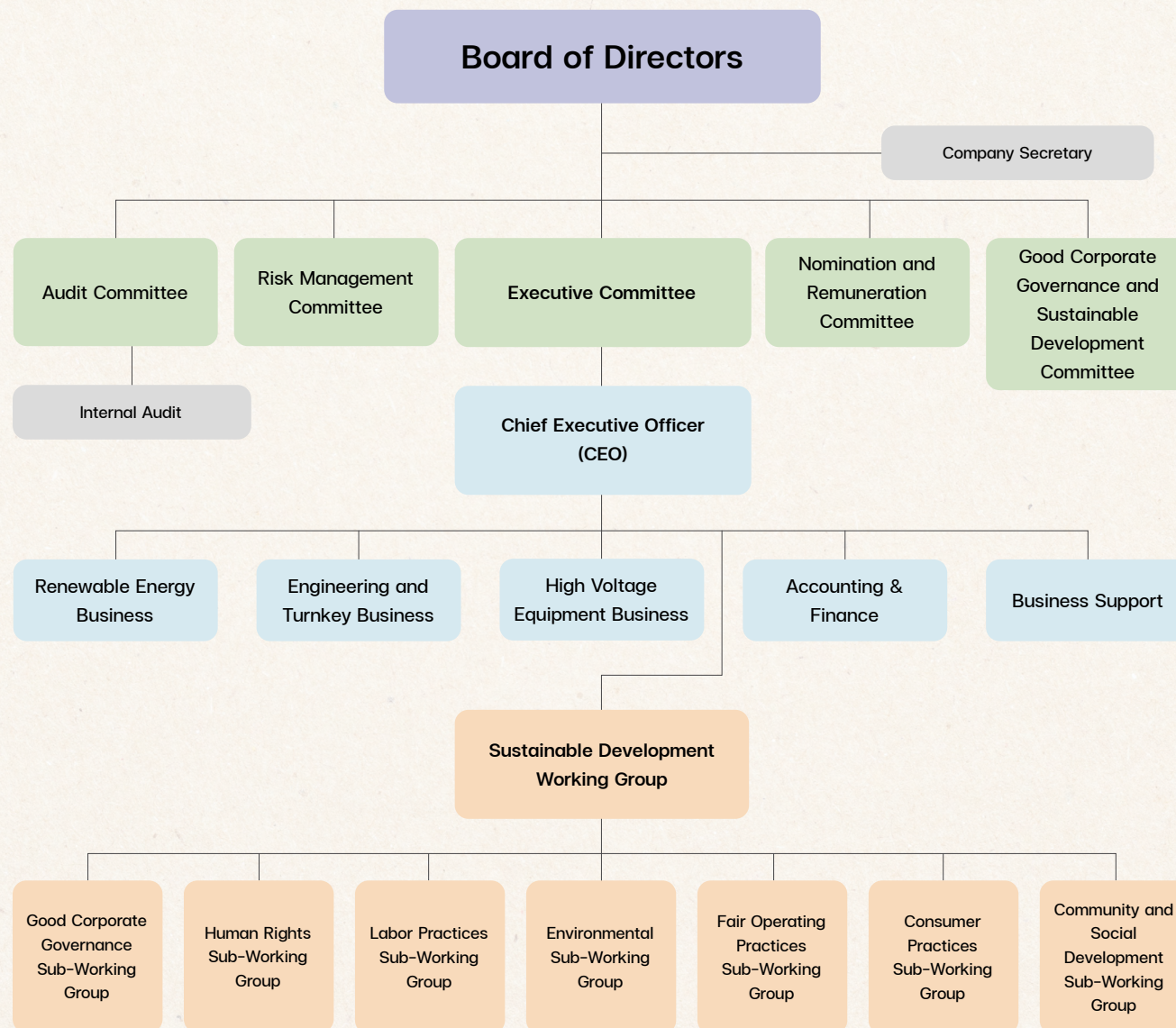
Promote peaceful and inclusive societies for sustainable development

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. (16.3, 16.5, 16.6, 16.7, 16.8, 16.10, 16.B).

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 that align with good practices according to standards and sustainability goals at both national and international levels, while overseeing and providing feedback and recommendations on practices to comply with sustainable management standards. This includes addressing relevant and significant issues for the business and stakeholders in the areas of environment, society, and corporate governance. Additionally, reviewing, monitoring, and assessing sustainability strategies and action plans, with quarterly meetings organized to drive and propel operations towards achieving the Company's sustainable development goals, and continuously reporting to the Board of Directors.

Moreover, to drive and promote the implementation of sustainability practices in a concrete manner throughout the organization, the Company has formulated the sustainable development working group. Its primary responsibility is to promote and implement sustainable development policies and strategies in a systematic manner, creating working processes that align with the organization's sustainability goals, as well as monitoring and collecting data, analyzing progress, and reviewing risks, opportunities, impacts, and challenges. This will be done in conjunction with considering the needs and expectations of all stakeholders, in order to effectively develop and enhance the organization's sustainability initiatives.



GUNKUL and the Management of Impacts on Stakeholders in the Business Value Chain

Business Value Chain	17
Analysis of Stakeholders in the Business Value Chain	18
Materiality Assessment	25



Business Value Chain

Import Factors

Financial Capital

- Operating costs of **7,830.43** million baht
- Total assets of **32,704.22** million baht

Production Capital

- Total installed capacity of **1,479.15** megawatts
- Domestic Solar energy capacity of **967.86** megawatts
- Overseas Solar energy capacity of **246.29** megawatts
- Wind energy capacity of **265** megawatts
- Over **5,000** trusted producers and electricity suppliers

Human and Intellectual Capital

- Total employees of **1,140** persons
- Average training hour of employees at all levels was **13.28** hour/ person/ year
- Training budget was **3.69** million baht
- Ratio of female employees to total employees was **39.74%**

Social Capital and Relationships

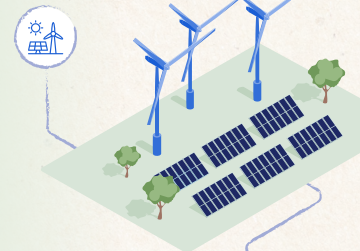
- Engagement with stakeholders
- Business Collaboration
- Relationship with suppliers
- Relationships and trust from the community
- Budget on community and social support was **7.24** million baht

Natural Capital

- Total electricity consumption within the organization was **3,573.38** megawatts-hours
- Total water consumption within the organization was **39,095.72** cubic meters
- Renewable and non-renewable natural resources

GUNKUL Business Operations

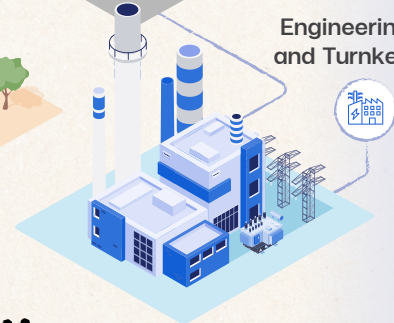
Energy for Sustainability



High-Voltage Electrical Equipment



Engineering and Turnkey



We Care Business



We Care People



We Care Social



Create shared value with stakeholders:



Employees



Suppliers



Customers



Competitors



Shareholders and Investors



Public Sector



Business Partners



Communities and Society

Results

For a Growing Business

- Revenue from sale was **2,344.38** million baht
- Revenue from sale of electricity was **2,178.52** million baht
- Revenue from rendering of construction services was **3,625.08** million baht
- Revenue from rendering of services was **110.70** million baht
- Total revenue was **9,731.24** million baht
- Profit (Loss) for the year was **1,661.08** million baht
- Net profit was **0.19** baht per share
- Dividend payment from annual operations was **690** million baht
- Income tax payment was **329.94** million baht

For a Livable Society

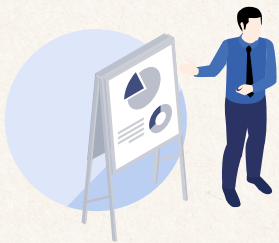
- Employee satisfaction and engagement with the organization was **74.00%**
- Employee turnover rate was **2.04%**
- Employees who have been promoted were **44** persons
- Lost Time Injury Rate (LTIR): Employee **0.74**
- Lost Time Injury Rate (LTIR): Contractors **1.85**
- Satisfaction with products and services was **89.21%**
- Overall community satisfaction and engagement was **84.31%**
- No complaints related to communities
- Develop a Smart City for a good quality of life on Smart Energy

For a Sustainable Environment

- Total greenhouse gas emissions of the organization was **28,741** tCO₂e, with a reduction of greenhouse gas emissions from Scope 1 and Scope 2 of **1,392** tCO₂e
- Contributed to reducing the country's greenhouse gas emissions by **384,656.67** tCO₂e from electricity generation using renewable energy **769,467.23** megawatt-hours
- Total amount of Renewable Energy Certificates (RECs) produced was **581,026.74** RECs
- Amount of waste managed according to the 3Rs principle was **99.77%**
- Total electricity consumption from renewable energy was **2.15%**
- Total recycled water consumption within the organization was **0.25%**

Analysis of Stakeholders in the Business Value Chain

All stakeholder groups play an important role in driving the business toward sustainable growth, whether it's employees with knowledge and skills, customers who trust and rely on products and services, business partners who collaborate in development and innovation, or surrounding communities, as well as other relevant groups that work together. Building good relationships with these stakeholders will lead to long-term success, as stakeholders are crucial in creating value for the business. Therefore, the Company analyzes the value chain from the activities of every business group to identify key stakeholders. This analysis leads to the assessment of expectations and the development of strategies to respond to those expectations, ensuring efficient business operations, minimizing potential risks, and fostering good relationships with stakeholders to grow together sustainably. The Company has identified 8 key stakeholder groups: employees, suppliers (products/services providers, trade creditors), customers, competitors, shareholders and investors, public sector, business partners, and communities and society. These groups are identified through the process of analyzing stakeholders involved in the business as follows:



Understand Value Chain

Analyze and identify the activities involved in the business process from the upstream (raw materials) to the downstream (production and delivery of products and services to customers), including both core activities and supporting activities. This analysis allows the Company to identify and connect relevant stakeholders throughout the value chain.



Stakeholder Identification

Identify stakeholders who can create an impact and/or be affected by the Company's business activities or related actions. This is done by considering the scope of stakeholder involvement based on the nature of their relationship with the Company, considering factors such as dependency, responsibility, assistance, and influence (both direct and indirect).



Stakeholder Prioritization


Analyze and prioritize stakeholders by evaluating their influence on the business in areas such as finance, operations, regulations, reputation, and strategy. This is done alongside assessing the impact of business operations on stakeholders in terms of economic, social, and environmental effects. The level of impact is identified using a Stakeholder Matrix, which categorizes stakeholders into 4 groups based on their level of influence over the business and the level of impact that the business has on them.





Stakeholder Engagement



Engage with key stakeholders according to their expectations, and respond to their needs and expectations through projects, measures, activities, and communication via appropriate channels. This ensures that the Company appropriately addresses stakeholder concerns and fosters positive relationships.



In 2024, the Company engaged in creating involvement and responding to the expectations of stakeholders as follows:


Stakeholders	Expectations	Goals and Communication Channels	Responding to Key Expectations
 Employees	<ol style="list-style-type: none"> 1. Good welfare and compensation that align with the current economic situation. 2. Holistic welfare that cares for both physical and mental health to create a balance between life and work. 3. Opportunities for learning and skill development, including new skills for career growth. 4. Convenient work tools and a safe and pleasant working environment. 5. The organization applies modern tools and technologies to improve work efficiency. 6. Promoting learning that allows employees to engage with groups or interact in knowledge exchange with others (social learning). 7. Transparency and good communication, listening to feedback, suggestions, and understanding employee needs. 8. An organizational culture that promotes gender diversity and acceptance, with no discrimination against employees at any level. 	<p>Goals :</p> <ol style="list-style-type: none"> 1. Employee satisfaction and organizational commitment rate of no less than 80.00%. 2. Employee turnover rate is less than or equal to the previous year. 3. Average employee training hours of no less than 9 hours per person per year. 4. Employees have career progression and job stability. 5. Work-related accident rate is zero. <p>Communication Channels :</p> <ul style="list-style-type: none"> • Employee survey to prepare suitable training courses for employees, aligned with business growth • Employee satisfaction and organizational commitment survey • Employee orientation program • Activities to build employee engagement • Executive meeting sessions with employees • Dissemination of news and activities through internal communication channels • 56-1 One Report and Sustainability Report 	<p>Approaches to Responding :</p> <ol style="list-style-type: none"> 1. Conduct an annual market compensation survey to evaluate and develop policies for providing appropriate and flexible compensation, benefits, and welfare. 2. Develop a recruitment system and employee selection process that is standardized, transparent, and fair for managing talent (Talent Management). 3. Develop systems or standards for employee development to ensure their capabilities meet the company's expectations, aligning the workforce with the organization's growth. 4. Create and provide training programs focused on developing skills relevant to employees in various job functions and levels, continuously making it a part of the organizational culture. 5. Create spaces for knowledge exchange, experience sharing, and collaboration within the organization to enhance work efficiency and diversify skill development. 6. Provide safe, suitable, and sufficient workspaces, equipment, and a conducive working environment. 7. Develop internal tools or systems that meet the specific needs of the organization. 8. Conduct an annual employee satisfaction and engagement survey. 9. Create multiple, accessible communication channels and platforms for employee feedback. 10. Foster a culture of acceptance of diversity and promote operations that respect human rights. <p>Performance Results Against Goals :</p> <ol style="list-style-type: none"> 1. Employee satisfaction and engagement with the organization: 74.00% 2. Employee turnover rate: 2.04%, decreased from 2023 by 0.46%. 3. Average employee training hours: 13.28 hours per person per year. 4. Number of employees promoted: 44 people. 5. Lost Time Injury Rate (LTIR): Employee 0.74, Contractors 1.85

Stakeholders	Expectations	Goals and Communication Channels	Responding to Key Expectations
 <p>Suppliers</p>	<ol style="list-style-type: none"> 1. Transparent, fair, and auditable procurement practices. 2. Awareness of current guidelines or policies related to the procurement system. 3. Conducting business in compliance with laws, regulations, and contractual terms related to intellectual property rights. 4. Building strong relationships with suppliers to promote effective collaboration. 5. Listening to feedback and complaints from suppliers and stakeholders to improve and enhance operations. 6. Protecting the information received from suppliers and ensuring it is not disclosed to unauthorized third parties. 7. Collaborating in the development and enhancement of sustainable procurement practices. 	<p>Goals :</p> <ol style="list-style-type: none"> 1. The performance evaluation score or suppliers' performance assessment is at an excellent level. 2. 100% of Critical suppliers have been communicated about the Supplier Code of Conduct. 3. 100% of Critical suppliers have been assessed on sustainability, covering economic, social, and environmental (ESG) issues <p>Communication Channels :</p> <ul style="list-style-type: none"> • Supplier selection assessment • Supplier risk assessment • Supplier performance evaluation • Business meetings or seminars • Channels for receiving feedback, including complaints and suggestions • 56-1 One Report and Sustainability Report 	<p>Approaches to Responding :</p> <ol style="list-style-type: none"> 1. Develop a Supplier Code of Conduct and communicate it to suppliers through various channels. 2. Establish criteria for selecting suppliers, considering sustainability factors. 3. Review and improve the procurement process and collaboration strategies to achieve shared goals. 4. Regularly evaluate key suppliers and assess their risks annually to develop supplier development plan. 5. Implement controls and internal audit systems to ensure compliance with regulations and obligations related to intellectual property. 6. Regularly visit suppliers to assess satisfaction, receive feedback or complaints, and improve processes. 7. Comply with regulations and laws protecting personal data to ensure that suppliers information is safeguarded and kept confidential. 8. Support the procurement of environmentally friendly products and services. 9. Share knowledge on various topics to enhance the sustainability of suppliers. <p>Performance Results Against Goals :</p> <ol style="list-style-type: none"> 1. The performance evaluation score or suppliers' performance assessment is at an excellent level. 2. 100% of Critical suppliers have been communicated about the Supplier Code of Conduct. 3. 100% of Critical suppliers have been assessed on sustainability, covering economic, social, and environmental (ESG) issues.

Stakeholders	Expectations	Goals and Communication Channels	Responding to Key Expectations
 <p>Customers</p>	<ol style="list-style-type: none"> 1. Products or services that are of high quality, safe, and meet standards. 2. Delivery of products and services efficiently and quickly, fully meeting the terms or agreements. 3. Products and services are reasonably priced and aligned with the current economic conditions. 4. Effective after-sales support and services, providing prompt responses and assisting business partners in all situations. 5. Offering innovative products or services, and developing modern technologies or processes to enhance competitive potential in the market. 6. Compliance with relevant laws, especially concerning data security or other applicable regulations. 	<p>Goals :</p> <ol style="list-style-type: none"> 1. Customer satisfaction with products and services of at least 90.00%. <p>Communication Channels :</p> <ul style="list-style-type: none"> • Channels for receiving feedback, including complaints and suggestions • Customer satisfaction surveys • Visits, meetings, training, and seminars • Communication through social media platforms • 56-1 One Report and Sustainability Report 	<p>Approaches to Responding :</p> <ol style="list-style-type: none"> 1. Monitor and control the production process of goods and services to ensure compliance with international standards. 2. Offer products or services that are of high quality, safe, and transparent with traceability. 3. Plan product delivery and set clear delivery timelines, providing information from raw material sourcing to customer receipt. 4. Develop a quality assurance system throughout the supply chain, from raw material sourcing to product delivery to customers. 5. Set fair prices for goods and services while providing transparent information to customers. 6. Train employees to enhance knowledge and expertise, ensuring efficient service that fully meets customer needs. 7. Assess customer satisfaction to measure and improve product and service quality, ensuring better alignment with customer demands. 8. Continuously develop renewable energy or clean technology innovations in the production of goods and services to benefit society and reduce environmental impact. 9. Link research and product development with production processes to increase efficiency and improve product quality. 10. Establish appropriate personal data protection measures (Personal Data Protection Act: PDPA) to safeguard personal data from unauthorized access. <p>Performance Results Against Goals :</p> <ol style="list-style-type: none"> 1. Customer satisfaction with products and services: 89.21%

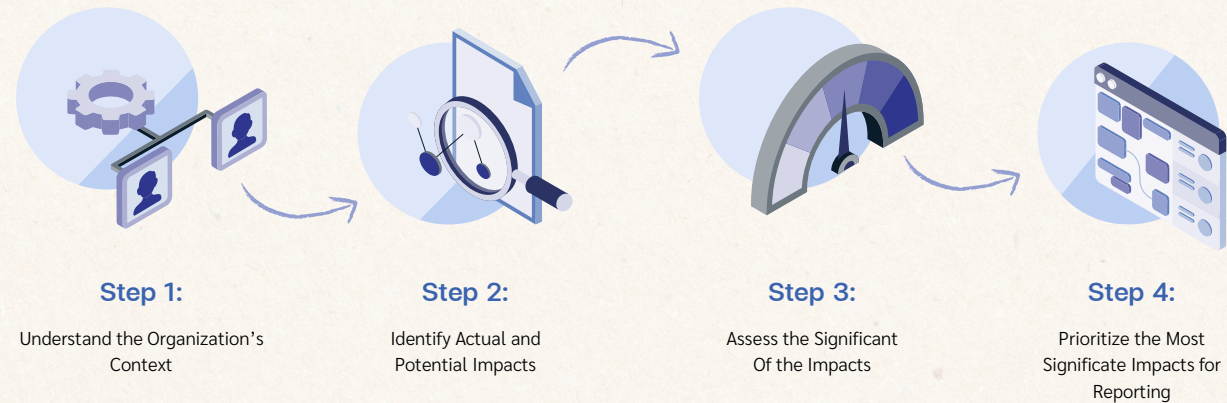
Stakeholders	Expectations	Goals and Communication Channels	Responding to Key Expectations
 Competitors	<ol style="list-style-type: none"> 1. Fair, transparent, and honest competition. 2. Respecting and complying with copyright and intellectual property rights. 3. Protecting business confidentiality and safeguarding sensitive information that may be valuable to stakeholders. 4. Building collaboration for business growth. 	<p>Goals :</p> <ol style="list-style-type: none"> 1. No complaints related to intellectual property or copyright infringement. <p>Communication Channels :</p> <ul style="list-style-type: none"> • Business seminars • Meetings to discuss, exchange ideas, and collaborate on various agendas • Company website • 56-1 One Report and Sustainability Report 	<p>Approaches to Responding :</p> <ol style="list-style-type: none"> 1. Operate with transparency, maintaining ethics and integrity in business competition. 2. Define access levels for information, allowing only relevant and authorized individuals to access confidential data. 3. Build partnerships and alliances within the same business sector to develop and expand the business sustainably. <p>Performance Results Against Goals :</p> <ol style="list-style-type: none"> 1. No complaints related to intellectual property or copyright infringement.
 Shareholders and Investors	<ol style="list-style-type: none"> 1. Good corporate governance and effective risk management. 2. Strong performance, stable business growth, and profitability. 3. Satisfactory and consistent returns (dividends). 4. Successful business operations that meet objectives. 5. Respect and fair treatment of all rights equally. 6. Transparent, accurate, complete, and timely company information disclosure for decision-making. 	<p>Goals :</p> <ol style="list-style-type: none"> 1. Investor relations survey results of at least 90.00%. <p>Communication Channels :</p> <ul style="list-style-type: none"> • Annual shareholders' meeting. • Announcement of the business plan and the company's operational intentions, along with activities on "Opportunity Day" • Analyst meetings • Company website • 56-1 One Report and Sustainability Report 	<p>Approaches to Responding :</p> <ol style="list-style-type: none"> 1. Operate the business based on good corporate governance principles and follow the annual business plan. 2. Achieve sustainable and balanced performance with effective risk management. 3. Build trust and provide appropriate, maximum returns. 4. Disclose business operations and results transparently, completely, and consistently. 5. Participate in events organized by the Stock Exchange of Thailand, such as Opportunity Day, to regularly communicate business performance to investors. <p>Performance Results Against Goals :</p> <ol style="list-style-type: none"> 1. Investor relations survey results: 85.30%.

Stakeholders	Expectations	Goals and Communication Channels	Responding to Key Expectations
 Public Sector	<ol style="list-style-type: none"> 1. Compliance with relevant laws and regulations. 2. Accurate and transparent reporting of operational results to the relevant government authorities. 3. Promote good corporate governance based on business ethics. 4. Opposition to bribery and corruption. 5. Timely payment of taxes and fees. 6. Cooperation and support for various government projects and activities. 	<p>Goals :</p> <ol style="list-style-type: none"> 1. No cases of violation or non-compliance with government regulations. 2. Participate in government projects and support government activities. <p>Communication Channels :</p> <ul style="list-style-type: none"> • Visits, meetings, training, and seminars • Audits and standard reviews • Organizing joint activities with the government • 56-1 One Report and Sustainability Report 	<p>Approaches to Responding :</p> <ol style="list-style-type: none"> 1. Operate the business under good governance practices and in compliance with relevant laws and regulations. 2. Disclose information transparently and consistently. 3. Participate in anti-corruption networks. 4. Comply with tax laws and regulations. 5. Cooperate with and support government projects and activities at the national level. <p>Performance Results Against Goals :</p> <ol style="list-style-type: none"> 1. No cases of violation or non-compliance with government regulations. 2. Participated in the Human Rights Organization Project in 2024, Ministry of Justice, Rights and Liberties Protection Department.
 Business Partners	<ol style="list-style-type: none"> 1. Transparency in business operations. 2. Strict compliance with safety, quality, environmental regulations, and other relevant laws. 3. Effective risk management. 4. Long-term planning, competitiveness, market expansion, and future investments. 5. Creating added value and sustainable returns. 	<p>Goals :</p> <ol style="list-style-type: none"> 1. No violations or non-compliance with agreements or contracts. <p>Communication Channels :</p> <ul style="list-style-type: none"> • Board meetings in subsidiaries and associated companies • Company website • 56-1 One Report and Sustainability Report 	<p>Approaches to Responding :</p> <ol style="list-style-type: none"> 1. Operate under good governance practices and comply with relevant laws and regulations. 2. Develop a comprehensive strategic plan for the renewable energy business. 3. Invest in innovation to create new technologies that reduce production costs and improve energy efficiency. 4. Develop projects with the potential to deliver high and sustainable returns, such as expanding the renewable energy market domestically and internationally, or investing in clean energy projects with strong financial returns. 5. Develop a comprehensive risk management plan, covering financial, legal, and climate-related risks, such as investing in low-risk projects and using technologies that help mitigate the impact of natural disasters. <p>Performance Results Against Goals :</p> <ol style="list-style-type: none"> 1. No violations or non-compliance with agreements or contracts.

Stakeholders	Expectations	Goals and Communication Channels	Responding to Key Expectations
 <p>Communities and Society</p>	<ol style="list-style-type: none"> Promotion of stable employment, income, and improvement of quality of life. Active participation in community activities or projects that positively impact the social, economic, and environmental aspects of the community in a sustainable manner. Communication of information/plans in advance before implementing any activities in the community area. Support and allocate funds for community development. Provide valuable knowledge and open opportunities for skill development so that the community can access information related to renewable energy. Foster and build positive relationships with the community and society. Ensure good environmental care, without negative impact on the community. 	<p>Goals :</p> <ol style="list-style-type: none"> Achieve at least 80.00% community satisfaction with the Company's operations. No complaints from society and the community. Reduce the organization's greenhouse gas emissions in Scope 1 and Scope 2 compared to the previous year. <p>Communication Channels :</p> <ul style="list-style-type: none"> Site visits and community meetings. Communication channels for receiving complaints, suggestions, and feedback. 	<p>Approaches to Responding :</p> <ol style="list-style-type: none"> Conduct site visits to listen to feedback, suggestions, and track the impacts on surrounding communities to improve the company's operations plan. Allocate budgets for the maintenance and improvement of the community's infrastructure regularly. Apply environmentally friendly technologies and innovations to improve the community's quality of life sustainably. Continuously run renewable energy power plant learning center projects to develop the community's knowledge, especially in innovation and technology that can reduce dependence on fossil energy. Support various activities in collaboration with the community to meet their needs through beneficial activities that are suitable for the local context. Promote local employment and business creation to reduce unemployment and stimulate the local economy. Encourage the participation of all sectors of society to create a sustainable and healthy environment at the local and societal level. Foster a culture of environmentally friendly operations, reducing energy use and greenhouse gas emissions throughout the organization. Develop projects or activities to enhance the quality of life for the community, including vulnerable groups. <p>Performance Results Against Goals :</p> <ol style="list-style-type: none"> Community satisfaction with the company's operations: 84.31% No complaints from society and the community. Total greenhouse gas emissions of the organization of 3 scopes was 28,741 tCO₂e, which total 3,189 tCO₂e of scope 1 and scope 2, decreased form 2023 by 30.39%

Materiality Assessment

The key sustainability issues will be regularly reviewed and assessed every year, focusing on both internal and external aspects that are important to the business. These issues will cover risks or Negative impacts, opportunities or positive impacts, as well as the expectations and needs of all stakeholders. The review process will also take into account trends and sustainability standards relevant to economic, social, and environmental dimensions. The process for identifying key sustainability topics follows the Global Reporting Initiative (GRI 3: Material Topics) reporting standards.



Understand the Organization's Context

The Company reviews the organization's context throughout the entire value chain, from upstream activities to downstream. This includes relationships and business linkages, sustainability contexts related to internal and external factors, as well as the needs, expectations, and concerns of stakeholders involved in the Company's operations. It also takes into consideration global trends and directions in the same industry sector to determine sustainability topics, which are categorized into 3 areas: Economic and good governance (We care Business), Social (We care People), and Environmental (We care Social).

Identify Actual and Potential Impacts

This step involves identifying both actual and potential impacts of sustainability issues, both positive and negative, that may occur in the economic, social, and environmental spheres. These impacts are considered across all business activities in the value chain through a process of stakeholder engagement with both internal and external parties.

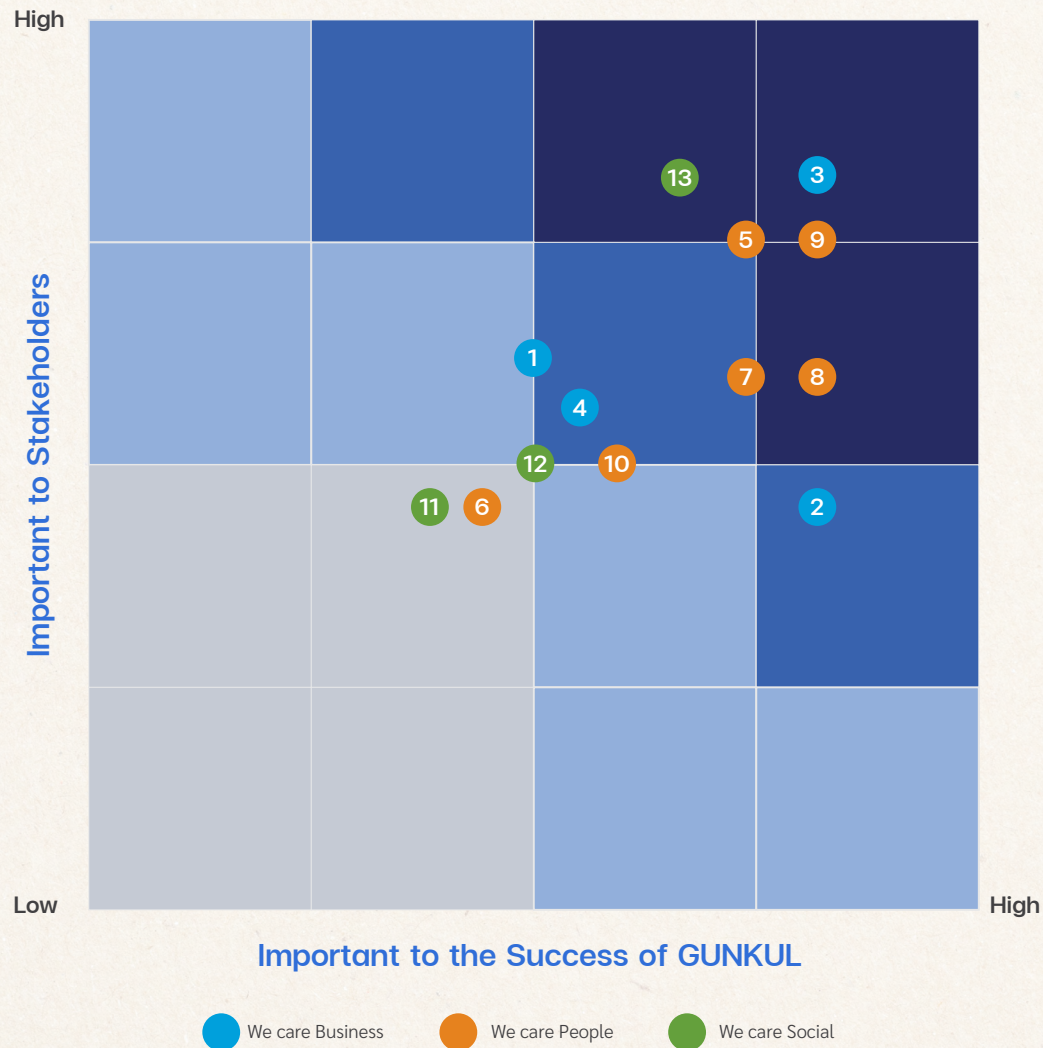
Assess the Significant of the Impacts

The significance of the impacts is assessed and prioritized by scoring based on the severity of the impact and the likelihood of occurrence. This includes the size, scope, and potential response capacity to mitigate the impact, both from the perspective of stakeholders and the business itself.

Prioritize the Most Significate Impacts for Reporting

This step involves prioritizing the impacts according to their significance, ensuring that all significant issues are thoroughly reviewed for accuracy and completeness. These issues are then presented to a working group for organizational development towards sustainability. After passing the review, the issues are submitted to the Good Corporate Governance and Sustainable Development Committee, and the Board of Directors for approval. A sustainability action plan is developed, along with an organizational risk management plan, which is approved by senior management. The CEO serves as the chairperson to approve the actions to meet stakeholder expectations and ensure continuous development.

Results of Materiality Assessment



Very High Importance (VH)

- 3 Sustainable Supply Chain Management
- 8 Employee Attraction and Retention
- 9 Products and Services Responsibility
- 13 Climate Change Adaptation

High Importance (H)

- 2 Crisis and Risk Management
- 4 Innovation Development
- 5 Occupational Health and Safety
- 7 Holistic Employee Development



Medium Importance (M)





- 1 Good Corporate Governance and Business Ethics
- 10 Value Creation for Society








Low Importance (L)




- 6 Labor and Human Rights Management
- 11 Waste Management in Production Processes
- 12 Biodiversity






Scope of Impact and Presentation of Material Issues in Reporting




Material Issues	Importance of the Issue	Scope of impact SDGs	Alignment		Management Approach
			SDGs	GRI	
We care Business	Good Corporate Governance and Business Ethics <p>Negative impacts</p> <ul style="list-style-type: none"> Neglecting relevant regulations and guidelines or engaging in corruption during the approval of permits could lead to lawsuits or fines, affecting trust from customers, investors, and other stakeholders. A lack of participation and failure to build positive relationships may lead to conflicts. <p>Positive impacts</p> <ul style="list-style-type: none"> Opportunities and competitive capabilities in a situation where consumers and investors prioritize investing in companies that are socially and environmentally responsible, with good corporate governance practices. Creating long-term value and sustainable returns, including building confidence and trust among shareholders, investors, and all relevant stakeholders. 	<ul style="list-style-type: none"> Employees Suppliers Customers Competitors Shareholders and Investors Public Sector Business Partners Communities and Society 		<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
	Crisis and Risk Management <p>Negative impacts</p> <ul style="list-style-type: none"> Failing to achieve business goals if the projects invested in or executed do not align with the plan. Business disruption during construction and production processes due to material shortages or management issues. The impact of climate change issues or natural disasters causing a decrease in power generation, leading to failure in meeting goals. <p>Positive impacts</p> <ul style="list-style-type: none"> The business can effectively cope with crises and minimize damage. Systematic and efficient risk management helps build investor confidence and facilitates easier access to funding. 	<ul style="list-style-type: none"> Employees Suppliers Business Partners Shareholders and Investors 		<ul style="list-style-type: none"> GRI 201 GRI 3 	<ul style="list-style-type: none"> Crisis and Risk Management

	Material Issues	Importance of the Issue	Scope of impact SDGs	Alignment		Management Approach
				SDGs	GRI	
We care Business	Sustainable Supply Chain Management	<p>Negative impacts</p> <ul style="list-style-type: none"> Dependence on certain suppliers or suppliers with insufficient capabilities may lead to raw material shortages, causing delays in the construction of power plants or production processes. If there are changes in regulations or requirements related to raw material procurement or transportation towards sustainability, it may force the business to adjust production plans, which could result in increased production costs <p>Positive impacts</p> <ul style="list-style-type: none"> Building good partnerships with business partners through the selection of partners with sustainability standards can help reduce risks and promote a positive image together. Developing technologies or using sustainable materials helps the company reduce environmental impacts and lower long-term costs. 	<ul style="list-style-type: none"> Employees Suppliers Customers Business Partners 	 	<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
	Innovation Development	<p>Negative impacts</p> <ul style="list-style-type: none"> The increasing demand for more efficient clean energy if the company does not develop innovations to meet this demand, its products or services may fail to align with market needs, leading to lost business opportunities. <p>Positive impacts</p> <ul style="list-style-type: none"> Improving electricity generation efficiency and reducing long-term operational costs. Meeting society's demand for access to clean energy, enabling the company to expand its market and differentiate itself from competitors, while also gaining support from the government and investors focused on sustainable future investments. Developing highly efficient energy technologies, positioning the company as a leader in clean energy innovation that is environmentally friendly, promoting the country's economic development, generating returns for the business, and improving the quality of life for society. 	<ul style="list-style-type: none"> Employees Customers Suppliers Shareholders and Investors Business Partners Communities and Society 	 	<ul style="list-style-type: none"> GRI 3 	<ul style="list-style-type: none"> Customer Relationship Management Business Innovation for Social Creation

Material Issues	Importance of the Issue	Scope of impact SDGs	Alignment		Management Approach
			SDGs	GRI	
We care People	Occupational Health and Safety Negative impacts <ul style="list-style-type: none"> Accidents leading to property damage, injuries, or fatalities of employees, contractors, as well as the surrounding community, affecting work performance. Non-compliance with occupational health and safety standards can result in legal liabilities, such as lawsuits or fines. Positive impacts <ul style="list-style-type: none"> Demonstrating corporate social responsibility builds trust and can attract high-quality employees to join the company. Investing in safety systems and occupational health care helps reduce accidents and injuries, leading to lower medical expenses, compensation costs, and loss of work time. Creating a positive organizational culture through a safe working environment makes employees feel confident and happy in their work, which can increase job satisfaction, reduce turnover rates, and improve work performance. 	<ul style="list-style-type: none"> Employees Customers Suppliers Business Partners Communities and Society 	 	<ul style="list-style-type: none"> GRI 3 GRI 403 	<ul style="list-style-type: none"> Occupational Health and Safety Management
	Labor and Human Rights Management Negative impacts <ul style="list-style-type: none"> Non-compliance with labor laws may lead to human rights violations within the value chain, potentially resulting in lawsuits and reputational damage both domestically and internationally. This could also lead to sanctions from international organizations, causing the loss of business opportunities. Inequality in the treatment of workers can lead to employee dissatisfaction, which may result in protests, resignations, or legal actions. Neglecting human rights may affect the company's image and lead to the loss of trust. Positive impacts <ul style="list-style-type: none"> Creating a positive work environment that promotes teamwork and enhances organizational engagement can improve work efficiency and reduce employee turnover. Building good relationships with stakeholders by operating with respect and responsibility. Trust from customers and investors who prioritize social responsibility, which can help increase market access and expand the customer base. 	<ul style="list-style-type: none"> Employees Suppliers Customers Competitors Shareholders and Investors Public Sector Business Partners Communities and Society 	    	<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 Management

Material Issues	Importance of the Issue	Scope of impact SDGs	Alignment		Management Approach
			SDGs	GRI	
We care People	Holistic Employee Development Negative impacts <ul style="list-style-type: none"> The lack of necessary skills and knowledge for business growth, as employees are unable to meet the standards required by the company or handle the rapid changes and challenges in the renewable energy industry. The lack of innovation in work processes if the workforce is not developed with skills in innovation or adapting to new technologies, it could lead to inefficiency in business processes and hinder competitiveness. Positive impacts <ul style="list-style-type: none"> Holistic employee development can enhance both technical skills and collaboration skills, enabling employees to work more efficiently and drive the achievement of organizational goals more quickly. Investing in employee development creates opportunities for growth and career advancement, leading to increased employee engagement and job satisfaction. This motivation helps reduce turnover rates. 	<ul style="list-style-type: none"> Employees 	 	<ul style="list-style-type: none"> GRI 3 GRI 404 	<ul style="list-style-type: none"> Human Resource Management
	Employee Attraction and Retention Negative impacts <ul style="list-style-type: none"> The lack of skilled personnel and specialized experience may lead to operational issues, such as delays in construction, lack of technological development, or an inability to adapt to a rapidly changing market. Losing quality employees can occur if the company fails to retain capable staff due to inadequate, inflexible, or unsuitable benefits, as well as the lack of building strong relationships and engagement. This can result in employees leaving, forcing the company to spend time and resources on recruiting and developing replacements. Positive impacts <ul style="list-style-type: none"> Creating a positive work environment and providing opportunities for employees to develop their skills can foster employee engagement and motivation, leading to job satisfaction and improved operational efficiency. Attracting employees with specialized skills essential for business operations. Helps reduce recruitment costs, allowing the company to manage resources in other areas more efficiently. Building a positive reputation in the labor market by valuing and taking responsibility for employees helps increase credibility and attract more investors or business partners. 	<ul style="list-style-type: none"> Employees 		<ul style="list-style-type: none"> GRI 3 GRI 401 	<ul style="list-style-type: none"> Human Resource Management

Material Issues	Importance of the Issue	Scope of impact SDGs	Alignment		Management Approach
			SDGs	GRI	
We care People	Products and Services Responsibility Negative impacts <ul style="list-style-type: none"> Failing to meet customer expectations can affect satisfaction and business relationships, potentially leading to the loss of customers or future business opportunities. Violation of standards and regulations due to non-compliance with quality, safety standards, or providing services that do not meet legal or industry requirements. Failing to resolve customer issues or complaints promptly, or neglecting after-sales quality, can damage the company's reputation and erode stakeholder trust. Positive impacts <ul style="list-style-type: none"> Focusing on product or service responsibility, providing excellent after-sales service, or continuously improving products and services can create customer satisfaction and trust, leading to repeat business and customer referrals. Developing new, safe, and efficient technologies will enable the company to expand its market to new customer segments. Creating differentiation and competitive advantage by offering high-quality, safe, and efficient products will increase popularity and build a loyal customer base. 	<ul style="list-style-type: none"> Employees Suppliers Customers Public Sector Business Partners Communities and Society 	    	<ul style="list-style-type: none"> GRI 3 GRI 416 	<ul style="list-style-type: none"> Customer Relationship Management Business Innovation for Social Creation
	Value Creation for Society Negative impacts <ul style="list-style-type: none"> Neglecting the social and environmental impacts of operations may lead to dissatisfaction from the community, affecting the company's image and reducing trust from stakeholders. Violation of community rights by destroying habitats or natural resources without considering the community's rights or providing protection for stakeholders in the area can result in social conflicts and legal risks. Positive impacts <ul style="list-style-type: none"> Developing socially and environmentally responsible renewable energy projects or investing in projects that help develop local communities or support education and community welfare can strengthen good relationships, build trust, and lead to community support. Creating value for society and focusing on sustainability opens opportunities for investment from investors who prioritize socially responsible businesses, as well as opportunities to partner with organizations focused on sustainable development. 	<ul style="list-style-type: none"> Employees Communities and Society 	 	<ul style="list-style-type: none"> GRI 3 GRI 413 	<ul style="list-style-type: none"> Community and Social Responsibility

	Material Issues	Importance of the Issue	Scope of impact SDGs	Alignment		Management Approach
				SDGs	GRI	
We care Social	Waste Management in Production Processes	Negative impacts <ul style="list-style-type: none"> Inefficient waste management can lead to environmental contamination, which may result in lawsuits or penalties under environmental laws. Non-compliance with laws or standards may result in the company facing fines or the loss of its operating license. Loss of stakeholder trust if waste management does not align with environmentally responsible principles. Positive impacts <ul style="list-style-type: none"> Developing sustainable production processes by improving manufacturing methods to manage waste efficiently. Responsible waste management helps reduce impacts on the community and the environment, fostering better relationships with local communities. Using environmentally friendly processes that reduce waste volume will help lower production costs and add value to products and services. 	<ul style="list-style-type: none"> Employees Suppliers Public Sector Communities and Society 	 	<ul style="list-style-type: none"> GRI 3 GRI 306 	<ul style="list-style-type: none"> Efficient Resource Use and Pollution Management
	Biodiversity	Negative impacts <ul style="list-style-type: none"> Destruction of ecosystems and loss of biodiversity due to operations that may damage wildlife habitats or alter ecosystems in areas with high biodiversity. Failure to conduct comprehensive environmental impact assessments or non-compliance with laws and standards for biodiversity conservation could expose the company to fines, lawsuits, loss of operating licenses, and reduced support from investors. Positive impacts <ul style="list-style-type: none"> Implementing projects that carefully consider the impact on biodiversity, ensuring that wildlife habitats are not destroyed, and promoting conservation and protection of nature. Prioritizing biodiversity preservation in areas with construction projects or investments, and considering natural conservation in these areas, will help build positive relationships with local communities. 	<ul style="list-style-type: none"> Employees Suppliers Customers Public Sector Business Partners Communities and Society 		<ul style="list-style-type: none"> GRI 3 GRI 304 	<ul style="list-style-type: none"> Environmental Responsibility Climate Actions Efficient Resource Use and Pollution Management



Material Issues	Importance of the Issue	Scope of impact SDGs	Alignment		Management Approach
			SDGs	GRI	
We care Social	Climate Change Adaptation	<ul style="list-style-type: none"> • Employees • Suppliers • Customers • Shareholders and Investors • Public Sector • Business Partners • Communities and Society 		<ul style="list-style-type: none"> • GRI 3 	<ul style="list-style-type: none"> • Climate Actions • Water Management • Energy Management
				<ul style="list-style-type: none"> • GRI 302 • GRI 303 • GRI 305 • GRI 306 	
	<p>Negative impacts</p> <ul style="list-style-type: none"> • Natural disasters (such as floods, storms, and droughts) may impact operations, for example, reducing the efficiency of electricity generation from solar and wind energy. • Changes in government regulations and policies, such as the draft Climate Change Act, which imposes stricter requirements on reporting and reducing greenhouse gas emissions by organizations. If the company fails to adapt to these new requirements, it may result in higher costs, fines, or penalties for non-compliance. <p>Positive impacts</p> <ul style="list-style-type: none"> • Investment in high-efficiency renewable energy technologies helps reduce the organization's greenhouse gas emissions and mitigates environmental and social impacts. • Investment in renewable energy projects and sustainable technologies can provide a competitive edge in the energy market. • Using renewable energy reduces long-term energy costs from fossil fuel sources, allowing the company to save on production expenses while mitigating the risk from energy price fluctuations due to market uncertainties. • Financial support or incentives from the government, such as subsidies for renewable energy projects or tax reductions for the use of sustainable technologies. • Demonstrating a commitment to addressing climate change strengthens the company's image in environmental responsibility, attracting attention from customers and investors. 				

GUNKUL and the Implementation of Sustainability Goals

For a Growing Business

Good Corporate Governance	36
Anti-Corruption	38
Risk and Crisis Management	43
Supply Chain Management	47
Tax Management	54

For a Livable Society

Human Rights Management	57
Human Resource Management	63
Occupational Health and Safety Management	75
Customer Relationship Management	82
Community and Social Responsibility	87
Business Innovation for Social Creation	94

For a Sustainable Environment

Environmental Responsibility	98
Climate Actions	103
Energy Management	110
Water Management	113
Efficient Resource Use and Pollution Management	120

For a Growing Business

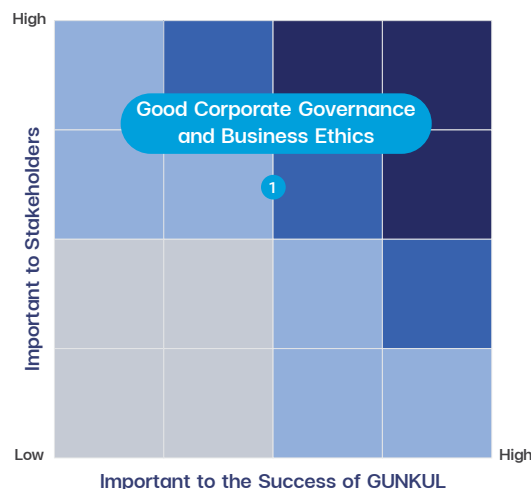
Developing a business to grow steadily and sustainably with transparency, ethics, and good corporate governance, while effectively managing risks.

Good Corporate Governance	36
Anti-Corruption	38
Risk and Crisis Management	43
Supply Chain Management	47
Tax Management	54



Good Corporate Governance

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



- 16.3 Promote the rule of law at both national and international levels, ensuring that everyone has equal access to justice.
- 16.6 Develop effective, responsible, and transparent institutions at all levels.
- 16.7 Guarantee responsible, inclusive, and well-represented decision-making processes at all decision-making levels.
- 16.8 Expand and strengthen the participation of developing countries in global governance institutions.
- 16.10 Ensure that the public can access information and that basic freedoms are protected in accordance with national laws and international agreements.

Key Performance Results



Evaluation results of the Corporate Governance Report of Thai Listed Companies (CGR)

Target
(Excellent)

Performance in 2024

Excellent



Case of complaints regarding violations of business ethics

Target
(None)

None

Performance in 2024



Challenge and Opportunity

Conducting business with fairness, transparency, accountability, and adhering to ethical principles helps build confidence and trust among all stakeholders. It also creates opportunities for business competition, especially in the current environment where consumers and investors value businesses that operate responsibly. This results in the Company being able to create value and achieve sustainable returns in the long term.

Good Corporate Governance Policy

The Company has established and implemented the “Good Corporate Governance Policy” to serve as a guideline for the Board of Directors, sub-committees, executives, and employees at all levels including all involved groups, to conduct business with responsibility, fairness, transparency, accountability, and in accordance with business ethics principles as follows:

Accountability: Responsibility for the performance of the duties and be able to clarify such actions.

Responsibility: A sense of duty with full capacity and efficiency.

Equitable Treatment: Respect for the rights of stakeholders and treat stakeholders with honesty and equality, as well as allowing the stakeholders to fairly participate.

Transparency: Disclosure of information and operations with transparency and verifiability.

Value Creation: Add value to the business in both short and long term through development, improvement and increase competitiveness.

Ethics: Adhere to business ethics.

[Read more about Good Corporate Governance Policy](#)

Moreover, the Company has established and implemented the “Business Ethics Policy” as a guideline for good practice in the operation and management of the organization’s system in accordance with corporate governance principles, responsibly, and in line with ethical standards. This policy goes beyond business components and legal compliance, covering ethics in business operations, the ethics of directors, executives, and employees, as well as ethics toward stakeholders. It aims to create and maintain good relationships with all stakeholder groups.

[Read more about Business Ethics Policy](#)

Corporate Governance Structure

The Board of Directors is responsible for overseeing the management to ensure that operations are carried out in accordance with the Company's objectives, goals, strategies, and business plans, for the benefit of the Company, shareholders, and all relevant stakeholders. The Board of Directors has delegated authority and responsibilities to 5 sub-committees to assist in overseeing operations in specific areas, which include:

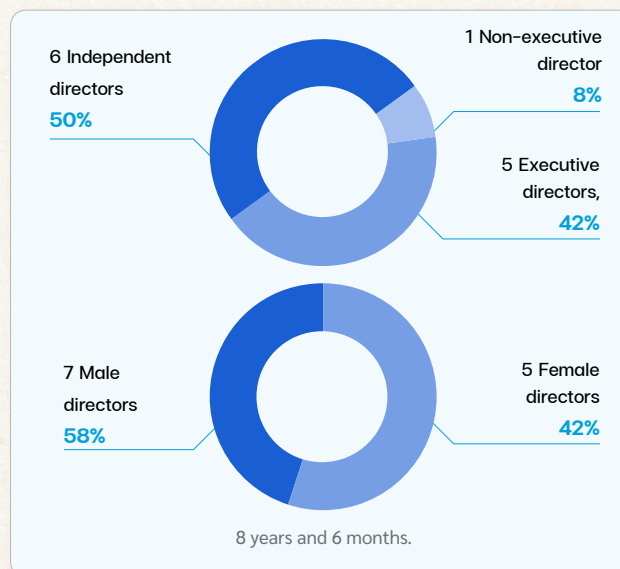
1. **Audit Committee** is responsible for supporting the Board of Directors in overseeing and auditing management operations, internal controls, and compliance with relevant laws. This ensures that the Company maintains a strong governance system.
2. **Risk Management Committee** is responsible for supporting the Board of Directors in setting policies and guidelines on risk management, consisting of key risks, sustainability risks (ESG Risk), and emerging risks.
3. **Nomination and Remuneration Committee** is responsible for supporting the Board of Directors in setting policies, criteria and processes for recruiting and selecting individuals to be nominated as directors. This ensures that candidates possess the appropriate qualifications and align with the Company's business strategy.
4. **Good Corporate Governance and Sustainable Development Committee** is responsible for supporting the Board of Directors in setting policies on good corporate governance, sustainable development, and establishing operational practices that align with global principles of good corporate governance and sustainability. This includes

respecting and considering human rights for all stakeholders, protecting the environment, conserving natural resources, and mitigating the impacts of climate change. The goal is to ensure that the Company's operations are conducted responsibly toward society and the environment.

5. **Executive Committee** is responsible for supporting the Board of Directors in managing and controlling the Company's operations to ensure concrete implementation. It promotes the Company's sustainable growth by managing the business with integrity, transparency, and accountability.

Composition of the Board of Directors

As of December 31, 2024, the Board of Directors consists of 12 directors.



Good Corporate Governance Approach

The Company adheres to the principles of good corporate governance, referencing the Corporate Governance Codes for listed companies of the Stock Exchange of Thailand. These principles are continuously reviewed and updated to align with ethical business practices. The Company's structure and practices based on good corporate governance consist of 4 main categories as follows:

1. **Rights of shareholders and Equitable Treatment of Shareholders** the Company is committed protecting the rights of shareholders and ensuring equitable treatment in all situations.
2. **Role of Stakeholders and Business Sustainability** the Company values the development of responsible relationships with stakeholders and focuses on driving sustainable business growth.
3. **Disclosure and Transparency** the company the Company prioritizes transparent, accurate, complete, timely, and reasonable disclosure of information to shareholders and other stakeholders.
4. **Responsibilities of the Board** the Board of Directors plays a crucial role in overlooking and making decisions for the Company's best interest and those of the shareholders.

In addition, please find more details about corporate governance in the Annual Registration Statements / Annual Report (Form 56-1 One Report) under the section "Corporate Governance",

which demonstrates the Company's commitment to adhering to good corporate governance principles in order to enhance transparency and sustainability in the business.

Good Corporate Governance Performance Results

The Company received the evaluation results of the Corporate Governance Report of Thai Listed Companies (CGR) for the year 2024 from the Thai Institute of Directors (IOD) as a listed company with an "Excellent CG Scoring", with an average score of 111%. Additionally, the Company has consistently achieved an "Excellent" rating in every category for 8 consecutive years. The average scores in each category are as follows:

Corporate Governance Report of Thai Listed Companies Results (CGR)		
Section A Rights of shareholders and Equitable Treatment of Shareholders	96	
Section B Role of Stakeholders and Business Sustainability	108	
Section C Disclosure and Transparency	102	
Section D Responsibilities of the Board	100	
Total score	111	

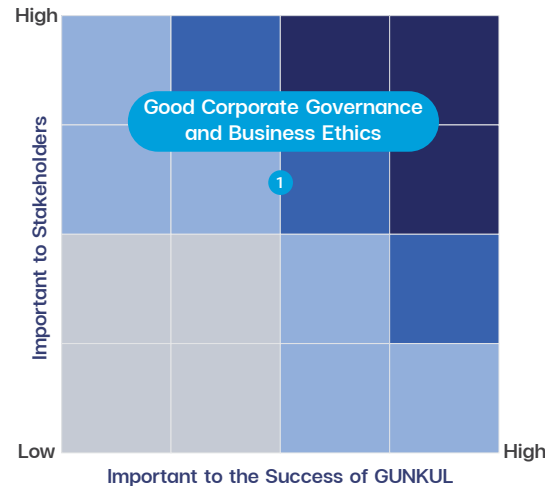


The Company achieved an average score of 111% and has maintained an

"Excellent" rating in all categories for 8 consecutive years.

Anti-Corruption

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



16.5 Reduce corruption in positions of authority and eliminate all forms of bribery.



Key Performance Results

Cases of complaints regarding violation of business ethics and corruption	Target (None)
None Performance in 2024	
Number of employees acknowledging anti-corruption Policy	Target (100%)
Performance in 2024 100	
Number of employees trained in business ethics, anti-corruption and anti-bribery courses	Target (100%)
Performance in 2024 92.86	
Employee test scores on business ethics and anti-corruption knowledge	Target (≥ 80%)
Performance in 2024 87.30	
Communication of anti-corruption policy to key suppliers (Critical Supplier Tier 1)	Target (100%)
Performance in 2024 100	
Number of employees penalized or fired for violating anti-corruption policy	Target (None)
None Performance in 2024	
Fines or compensation costs related to corruption (in Baht)	Target (None)
None Performance in 2024	
Total political donations (in Baht)	Target (None)
None Performance in 2024	

Challenge and Opportunity

Anti-corruption is a key issue that is interconnected with sustainability in all dimensions - economic, social, and environmental. The main challenge is maintaining transparency and preventing corruption in all forms, both at the organizational level and between businesses, including interactions with partners, business associates, customers, and other stakeholders. Due to the variety of activities involved in business operations, the processes for monitoring and prevention must be thorough and adequate. They also require cooperation from all parties involved. At the same time, effectively combating corruption in business can build confidence in the foundation of good corporate governance, leading to the creation of a strong organizational culture. This is a crucial foundation for supporting long-term sustainability development, both economically and socially equitable.

Anti-Corruption Process

The Company establishes and reviews the processes or steps involved to identify flaws in the workflow and improve them to enhance efficiency and prevent corruption. The steps are as follows:

1. **Anti-Corruption Policy:** Establish a clear policy and framework, communicate to all employees at all levels, and ensure that relevant stakeholders are informed. Regularly review and reinforce the policy.
2. **Corruption Risk Management:** Assess and analyze risks that could lead to corruption, and implement measures to control and reduce these risks.
3. **Internal Auditing:** Regularly conduct internal audits to assess effectiveness and identify weaknesses.
4. **Corruption Complaint Management:** Provide safe channels for whistleblowing and ensure protection for whistleblowers.
5. **Knowledge Communication:** Organize training courses on anti-corruption for employees and communicate policies and best practices to relevant stakeholders.
6. **Continuous Review and Improvement:** Use the results from assessments and audits to improve workflow processes to increase efficiency and prevent recurring issues. Additionally, develop and implement technology to monitor and control workflows, reducing opportunities for corruption.

Anti-Corruption Policy

Anti-Corruption Process



Creating a Corruption-Free Organizational Culture



Follow the policy by refraining from engaging in corruption, whether directly or indirectly.



Implement an internal control system that considers risk management, assesses risks, and sets measures to manage corruption-related risks.



Establish audit processes, systems, and operational procedures for sales, marketing, procurement, and other related activities to ensure transparency.



Ensure the proper retention of documents and records to be readily available for auditing to confirm accuracy.



Promote a culture where employees at all levels are encouraged not to ignore or overlook any acts that may involve corruption.



Employees involved in corruption or unethical conduct **must be subject to disciplinary actions** according to company policies.



Senior executives **must regularly report** the results of anti-corruption audits to the Audit Committee and the Board of Directors.




Organize training sessions, disseminate knowledge, and ensure understanding of the anti-corruption policy among employees and relevant stakeholders at least once a year.



Promote awareness of the policy among external parties, including stakeholders, and encourage their involvement in anti-corruption efforts through the Company's communication channels.

The Company has established a written policy on anti-corruption and whistleblowing as a guideline for good practice for the Board of Directors, executives, employees, and all stakeholders. This policy aims to prevent involvement in any form of corruption, both directly and indirectly. It also mandates regular reviews and updates of the Anti-Corruption and Whistleblowing Policy. The Internal Audit department is responsible for assessing risks and ensuring compliance with the policy. In 2024, the Company reviewed and assessed employee practices related to the anti-corruption policy and the handling of gifts, assets, or other benefits during the festive season to ensure that the Company's policies and internal control systems are robust and adequate.

 [Read more about Anti-Corruption and Whistleblowing Policy](#)

Corruption Risk Management

The Company assesses the risk of corruption based on the principles of the Thai Private Sector Collective Action Against Corruption (CAC). The risk is categorized into several types, including risks from “buying convenience,” risks from “buying speed,” risks from “buying business opportunities,” and risks from “buying wrongdoings.” The Company's Anti-Corruption and Whistleblowing Policy encompasses both giving and receiving benefits that may influence business decisions. It also defines a systematic, transparent approval process, tight control over disbursements, clear approval authority, and proper documentation and evidence management. Furthermore, the

Company regularly conducts internal audits of gift-giving, hosting, and donations since these activities carry risks of being used as channels for bribery. In addition to assessing corruption risks within the Company's operations and activities, the Company also assesses the corruption risks that may arise from new business partners. This includes comprehensive checks on corruption, assessing their qualifications and transparency, and reviewing their anti-corruption policies through inquiries and document verification. This process serves as a preventive measure against corruption in business operations, including procurement and purchasing processes. The Company has established guidelines for responding to and mitigating corruption risks as follows:

- ✔ **Risk Reduction/Treat:** Improve and modify internal processes to strengthen control measures, such as setting transparent approval steps and transaction recording, and providing training to employees on anti-corruption ethics. This aims to reduce both the opportunities and potential impacts of corruption.
- ✔ **Risk Transfer:** In cases where the Company cannot fully control or mitigate risks, the Company may consider transferring such risks to external individuals or organizations.
- ✔ **Risk Avoidance:** If any activity or project presents a high risk of corruption and cannot be controlled to an acceptable level, the Company will consider avoiding or discontinuing that operation to reduce the likelihood of corruption and fraud, which could harm the organization's reputation and trust.

- ✔ **Risk Acceptance:** Accept the risk if it is within an acceptable level, but continuous monitoring and evaluation are required to ensure that the risk does not escalate beyond an acceptable threshold.

Based on the current risk assessment, the Company's risks related to corruption remains at a low to moderate level, with no high-level risks identified. In addition, to enhance confidence in the internal control processes that align with the anti-corruption policy, the Internal Audit Department has developed an annual audit plan, which includes reviewing expenses that are at risk of corruption. Additionally, during each audit, the Internal Audit Department will specify audit topics to ensure compliance with the policy for processes with identified risks, ensuring that the internal control measures are effective and transparent in managing the risk of corruption.

Management of Corruption Complaints

Whistleblowing Channels for Corruption Complaints

The Board of Directors has assigned the Audit Committee to consider receiving reports of suspected actions that could involve corruption, whether direct or indirect. The committee is responsible for reviewing complaints with independence and fairness. The Company has established channels for reporting suspicions or witnessing misconduct related to corruption, as follows:

1. Corruption actions involving the Company Group, whether direct or indirect, such as observing individuals within the organization accepting or offering bribes to government officials or private sector personnel.
2. Violation of the Company policies and procedures that may impact the internal control system, creating a potential avenue for corruption.
3. Actions that cause harm to the Company's interests and damage the reputation of the Group.
4. Illegal, unethical, or unprofessional actions contrary to business ethics.

The whistleblower should provide details of the complaint (name or position of the person accused, the time the misconduct was observed) and the whistleblower's name, address, and phone number for contact. This information should be sent to one of the Company's designated channels for receiving complaints as follows:

Channels for receiving complaints



The Audit Committee's email :
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
548 One City Centre (OCC), 44th Floor, Phloen Chit Road, Lumpini, Pathum Wan,
Bangkok 10330



"Whistle Blowing and Complaints Box"
(The box is located within the Company and can only be accessed by the Secretary to the Audit Committee)

Management of Information or Whistleblowing Related to Anti-Corruption

The Company has established a process to handle confidential whistleblowing or complaints, specifying the relevant parties, steps for receiving complaints, investigation procedures, and penalties as follows:



Protection and Confidentiality Measures

To protect the rights of whistleblowers and information providers who act in good faith, the Company has established protection and confidentiality measures for whistleblowers and information providers as follows:



Personal information, names, addresses, or any information that can identify the whistleblower or information provider **will be kept confidential.**



Protection will be provided to whistleblowers, complainants, witnesses, or individuals providing information to prevent any harm or unfair treatment.



Confidentiality will be maintained for all information and complaints, and such information will not be disclosed to individuals who are not involved.



Fairness will be ensured for whistleblowers or anyone providing information, preventing any negative consequences for that person.

Anti-Corruption Performance Results

In 2024, the Company received no complaints regarding violations of business ethics or corruption. However, the Company remains committed to being free from corruption or bribery, both directly and indirectly. Management must be a good example and ensure that all employees strictly follow anti-corruption measures. The Company has also established proactive guidelines to combat corruption, prevent potential future risks, and foster a transparent corporate culture, as follows:

Demonstrating Commitment and Intentions to Combat Corruption

1. Review the anti-corruption and whistleblowing policy for the year 2024 and communicate it to all stakeholders.
2. Join the Thai Private Sector Collective Action Against Corruption (CAC) to demonstrate the Company's intention, commitment, readiness, and effectiveness in conducting business with integrity and preventing all forms of corruption.



- In 2017, the Company was certified as a member of the Thai Private Sector Collective Action Against Corruption (CAC).
- In 2020, the Company received the first re-certification.
- In 2023, the Company received the second re-certification.

Continuous Review and Improvement

1. Conduct a detailed risk assessment to identify potential weaknesses where corruption and bribery may occur, and randomly audit business processes that may have risks, such as government contracts, consultancy payments, and donations for social causes.
2. Improve internal control measures, particularly in high-risk processes such as procurement, gift-giving, and relationships with government officials.
3. Review employees' understanding and practices regarding the Anti-Corruption and Whistleblowing Policy and the acceptance of gifts, assets, or other benefits during holidays, while promoting a "No Gift Policy" corporate culture, especially during holidays or special occasions.

Knowledge Communication

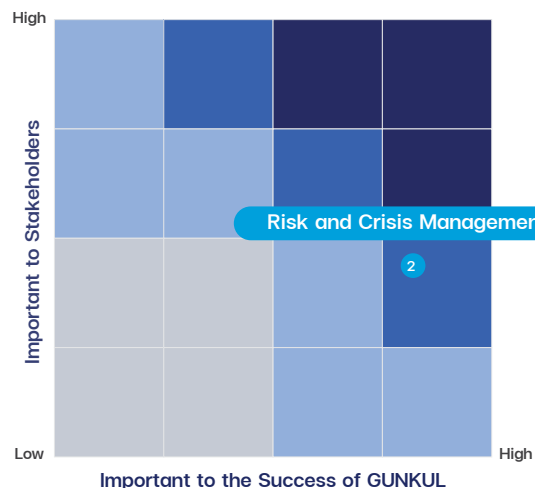
1. Communicate and publicize to build understanding and instill the organization's culture and values in combating corruption and bribery to employees and relevant stakeholders continuously. This is incorporated as part of the orientation program for all new employees, except in cases where employees need to start fieldwork immediately. The aim is to encourage employees at all levels to be aware of and report any suspicious actions related to corruption or bribery and to effectively communicate the key points of this policy to stakeholders. Moreover, the Company regularly conducts training to refresh employees' knowledge and awareness of their roles in preventing corruption. In 2024, the Company organized training on the

topic "The Role of Executives and Employees in Combating Corruption" with a representative from the Thai Private Sector Collective Action Against Corruption (CAC) as the speaker. The training was held both on-site and online, with a total of 355 participants attended the training, including board members, executives, and employees. The content covered topics such as the corruption situation in Thailand and raising awareness of its importance, the roles of board members, executives, and employees in combating corruption, creating a Tone from the Top regarding ethics, guidelines for board members in decision-making when faced with ethical dilemmas, the role of the board in overseeing the ethical framework within the organization, preventing conflicts of interest, and preventing the misuse of insider information.

2. Declares anti-corruption intentions to business partners through communication of the Company's Anti-Corruption and Whistleblowing Policy to major partners, in order to build understanding and cooperation in conducting business transparently. The Company prepares pamphlets summarizing the key points of the policy and distributes them to partners. Additionally, the Company uses surveys to check the partners' understanding and adherence to anti-corruption principles. This helps ensure that major partners are aware of the Company's ethical standards and conduct business under the principles of transparency and shared responsibility.

Risk and Crisis Management

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



- 16.6 Develop effective institutions that are responsible and transparent at all levels.
- 16.7 Ensure there are responsible, inclusive, and well-represented decision-making processes at every level of decision-making.

Challenge and Opportunity

Risk and crisis management are crucial factors affecting the sustainability and growth of the Company. Effective risk management can help prevent and mitigate potential impacts from unforeseen crises, such as failing to achieve business goals due to projects not going according to plan, or disruptions in construction and production processes caused by material shortages and poor management. In addition, natural disasters and climate change can affect power generation, preventing operations from reaching their set goals. At the same time, good risk management can create opportunities for the Company to handle crises efficiently, reduce damage, and enable quick recovery of business activities. This builds investor confidence, allowing the Company to access more funding sources, which is a key factor in business expansion and long-term economic stability.

Risk Management Policy

The Company and its Group recognize the importance of systematic risk management under the principles of good corporate governance to support efficient operations and achieve the set objectives, as well as to enhance the ability to adapt to rapidly changing situations and challenges. The Company has established the Enterprise Risk Management

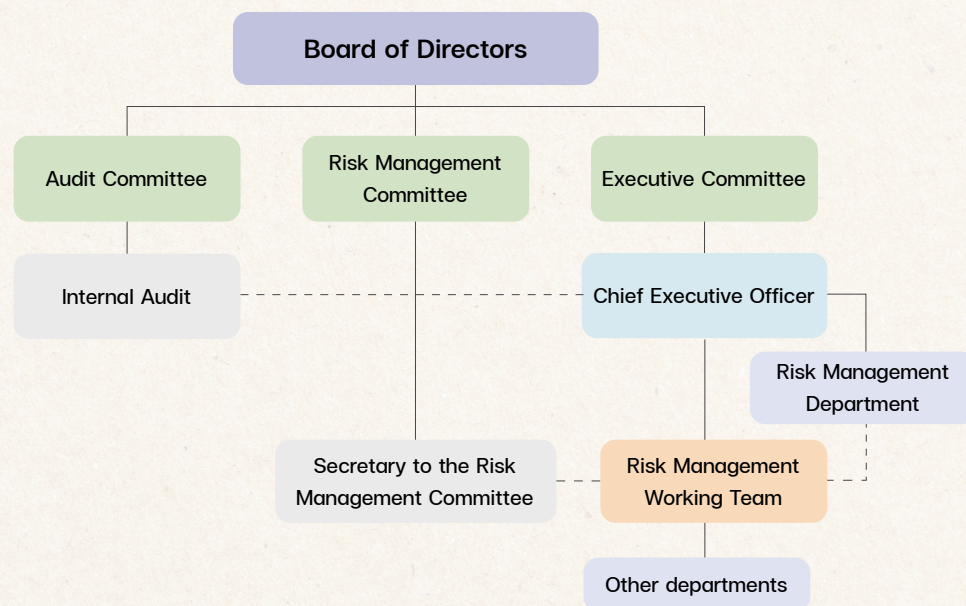
Policy as a framework of best practices for managing internal risks, along with internal audits, to ensure effective risk management. This fosters confidence among stakeholders, increases opportunities, and strengthens business competitiveness, leading to sustainable long-term business growth and returns.

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



Risk Management Structure

The Company has formulated the Risk Management Committee and the risk management working team to oversee, set policies, guidelines, and framework for risk management operations. This includes monitoring and supporting the effective and efficient management of risks within the organization as follows:



Scope of Duties and Responsibilities

Components of Risk Management Framework	Responsibilities
Board of Directors	Overall responsible for overseeing the appropriate and consistent implementation of risk management across the organization through the Risk Management Committee. This includes being informed of the risk management outcomes and providing recommendations for further development.

Components of Risk Management Framework	Responsibilities
Audit Committee	Assists the Board of Directors in performing their duties related to risk management by reviewing to ensure that the risk management system is appropriate and effective.
Risk Management Committee	Establishes confidence that significant business risks are consistently identified and assessed, and that effective risk management measures are in place. · Establishes a sustainability risk management system, focusing on risks related to Environmental, Social, and Governance (ESG) issues, in order to prepare for prevention and resolution, as well as to seek business opportunities from these risks effectively.
Executive Committee	Supervises the organization to ensure compliance with the risk management policy, drives continuous implementation within the Company and its Group, and reviews risk management practices, including the internal control system.
Chief Executive Officer	Ensures the organization strictly adheres to the practices and continuously monitors their implementation. Additionally, promotes awareness of risks and risk management until it becomes an integral part of the organizational culture.
Risk Management Working Team	Implements the risk management policy, reviews the identification, analysis, and assessment of risks in each department. Monitors the execution of the risk management plan at both the activity and organizational levels, reviews the appropriate measures for managing risks to report to the Chief Executive Officer and coordinate with the Secretary to the Risk Management Committee.
Risk Management Department	Establishes risk management system, develops a risk management plan, reports and assess the performance based on the risk management plan, as well as reviewing the risk management plan to improve future operations.
Executives and employees	Identify, analyze, assess, and prioritize risks, and determine key risk indicator (KRIs) of responsible units. This also includes defining appropriate measures to manage risks, considering them as part of the responsibilities in the operations.
Internal Audit Department	Examines the effectiveness of internal controls through the annual internal audit, which involves auditing key business processes based on risk factors, as well as monitoring the correction actions of identified deficiencies.

Risk Management Approach

The Company's risk management practices follow the principles of the Enterprise Risk Management – Integrated Framework developed by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) for risk management. A risk management working team has been established, consisting of executives from all departments to ensure comprehensive risk management that links various risk issues across all areas, including strategic risk, operational risk, financial risk, compliance risk, ESG risk, and emerging risks. Additionally, quarterly reports on risk management are required to evaluate and monitor risk management measures, ensuring they remain at an acceptable level. This prepares the Company to appropriately and promptly respond to changes that may impact business operations.

Risk Management Procedures

The Company continuously assesses and reviews various risk issues that may impact the organization, considering both internal and external factors. This covers all types of risks and incorporates a systematic risk management process to ensure effective risk management. The residual risks are maintained at an acceptable level to ensure appropriate and efficient operations.



Risk Identification

The Company consistently identifies and considers risk factors across all aspects of its business operations, both internal and external. This includes risks related to strategy, finance, construction management, legal compliance, information technology, operational risks, fraud and corruption, as well as sustainability risks.

Risk Assessment

The Company evaluates and prioritizes risks by assessing the likelihood of their occurrence and the severity of their potential impacts across various areas, as outlined in the Enterprise Risk Matrix.

Risk Response

The Company has defined measures to prevent and mitigate potential impacts from risks, in order to respond effectively to the risks and opportunities associated with each type.

Risk Monitoring and Control

The Company has established Key Risk Indicators (KRIs) and assigned responsible individuals for reporting and monitoring to assess potential risks. The goal is to ensure that these risks are maintained at a low level or within an acceptable level.

Communication and Reporting

The Company applies modern information technology in its risk management processes to communicate and report on risk management activities. Additionally, it supports ensuring that employees at all levels have comprehensive access to risk management information. This approach ensures that the risk management processes are effective and sufficient to address potential risks.

The details of the Company's key risks, including both existing and emerging risks, as well as the approaches for mitigating and controlling these risks, can be referenced and further details can be found in the 2024 Annual Registration Statements (Form 56-1 One Report) under the section "Risk Management and Factors Affecting the Company's Business Operations."

Risk Management Culture

The Company promotes and instills risk awareness and knowledge at all levels of employees, making risk management an integral part of the organizational culture. This fosters a collective effort to prevent and mitigate impacts on business operations, enhance competitiveness, and achieve sustainable long-term growth. This is done through continuous and consistent involvement in risk management at all operational levels. The Company has developed a risk management culture through policies and encourages both executives and employees to take responsibility for identifying, analyzing, assessing, and prioritizing the risks within their respective areas of responsibility. Appropriate measures for managing risks are also implemented as part of their responsible work practices. In 2024, the Company conducted training and practical seminars on risk management to enhance employees' knowledge and understanding of risk management, ensuring the identification of critical risks and the creation of tangible processes, as outlined below:

- ✔ Organized training on the objectives of Key Risk Indicators (KRI) for the Chief Operating Officer (COO) and executives from each department by Dr. Somboon Aueatchasai, Chief Executive Officer.
- ✔ Organized training on the criteria for defining Key Performance Indicators (KPIs) for executives, conducted by Integrated Management Consultants Co., Ltd.



In addition, the Company promotes a risk management culture throughout the organization by continuously enhancing knowledge and understanding of risk management through various channels. These include meetings, training sessions, new employee orientation, notifications via email, e-learning, and disclosures through the 2024 Annual Registration Statements (Form 56-1 One Report) and the Sustainability Report. This ensures that employees at all levels can learn and raise awareness about risk management.

Business Continuity Management

The Company has determined Crisis Management Plan and Business Continuity Plan to cope with fluctuations and uncertainties in various situations such as natural disasters, accidents, epidemics, and cyber threats that could have negative impacts and disrupt business operations. These plans are designed to ensure business continuity. This is achieved through risk analysis and prioritization, management planning, and testing the plans through hypothetical scenarios. The plans are regularly reviewed and improved for effectiveness,

while also assessing the ability of personnel to respond to crises and protect the interests of stakeholders and the business's credibility. The risk management process includes the following steps:



Risk Management

Asses and set plans to control and prevent various risks and crises.



Respond to incidents

Manage crises, and prevent damage effectively, as well as communicating relevant information to stakeholders.



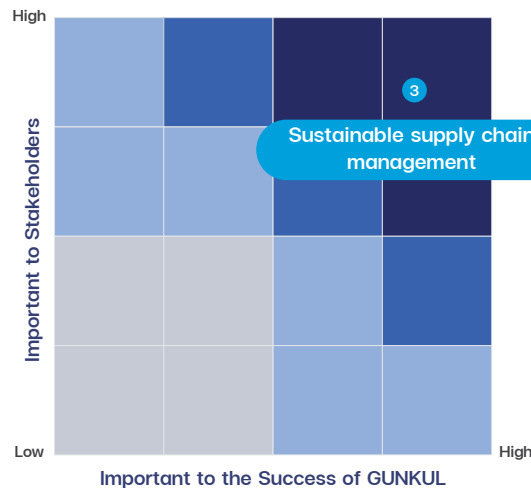
Recover from damage

Restore business activities quickly and ensure that stakeholders accept the recovery efforts.

The Company annually conducts business continuity management exercises based on hypothetical scenarios. In 2024, the Company carried out drills for fire and chemical spill incidents, as well as a system recovery plan for information technology from cyber threats. These exercises ensure that executives and relevant employees understand their roles and responsibilities and know what actions to take in the event of an incident or emergency. Additionally, the Company evaluates and identifies any deficiencies in the measures implemented, to improve and enhance the effectiveness of the plan, covering potential risks that may arise.

Supply Chain Management

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



12.2 Achieve sustainable management and the efficient use of natural resources.



16.5 Reduce corruption in positions of authority and all forms of bribery.

16.6 Develop effective, responsible, and transparent institutions at all levels.

16.7 Ensure that decision-making processes are responsible, inclusive, and representative at all levels of decision-making.

16.8 Expand and strengthen the involvement of developing countries in institutions related to global governance.

Key Performance Results



Critical suppliers who have been evaluated and selected as new partners cover aspects of environmental, social, and governance (ESG)

Target
(100.00%)

Performance in 2024

100



Critical suppliers who have been evaluated and selected as new partners cover aspects of environmental, social, and governance (ESG)

Target
(100.00%)

Performance in 2024

100



Challenge and Opportunity

In the face of economic uncertainty and changes in energy policies, managing the supply chain in the integrated renewable energy business is a significant challenge. This includes sourcing raw materials and necessary equipment for power plants, construction, production, as well as managing complex logistics and adhering to strict regulatory requirements. At the same time, there are opportunities for developing new technologies and innovations, such as improving processes to increase efficiency and sustainability, and utilizing technology to manage the supply chain more effectively. Furthermore, there are opportunities arising from government financial support and policies, as well as the rapid growth of the clean energy market driven by changes in consumer behavior towards environmental concerns. Therefore, businesses in the renewable energy sector need to adapt to these challenges while leveraging emerging opportunities to create sustainability in the supply chain and enhance competitiveness in the rapidly growing market.

Supply Chain Management Approach

The Company integrates sustainable development practices that consider environmental, social, and governance (ESG) aspects, as well as human rights principles, into the management of the supply chain. This ensures that the selection process for goods and services is of high quality, efficient, and produces sustainable outcomes. Additionally, this approach serves as a key strategy in the Company's procurement process. The Company has developed and published a procurement policy focused on transparency, fairness, and accountability, to ensure budget efficiency, sustainable resource allocation, and effective risk management of partners. It also supports anti-corruption measures, promotes business ethics, and creates awareness among all partners about conducting business based on social and environmental responsibility. Furthermore, the Company aims to develop all partners to operate sustainably within the supply chain. The management approach includes the following guidelines:



Supplier Code of Conduct



Evaluation of Supplier Performance



Selection of New Suppliers



Building Relationships with Suppliers



Supplier Risk Assessment



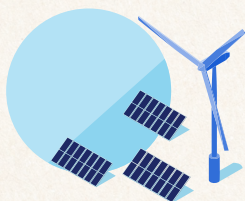
Promoting Environmentally Friendly Procurement

[Read more about Procurement Policy](#)

[Read more about Supplier Code of Conduct](#)

Supplier Code of Conduct

The Company has developed a business ethics code for its partners, with the objective of demonstrating its commitment to sourcing, procurement, and contracting, as well as encouraging its partners and its Group to conduct business in an ethical manner. This includes respecting freedom and treating workers fairly according to human rights principles, prioritizing the environment, safety, and occupational health, as well as responsibility towards the community and society. The code is communicated and made publicly available to all partners through the Company's website, where the details and relevant topics can be accessed, with details as follows:



Let's care Business

Collaborate to develop an integrated business.
Respond to stakeholders in a value-driven manner.

Good Corporate Governance

- ✔ Accountability for performance and the ability to explain actions and decisions.
- ✔ Dedication to duties with full capability and efficiency.
- ✔ Respect for rights and fair treatment of stakeholders, ensuring equitable opportunities for participation.
- ✔ Transparency in operations and disclosure of information to ensure accountability.
- ✔ Adding value to the business in both short and long term by improving and enhancing competitive capabilities.
- ✔ Uphold ethical conduct and business integrity.

Business Ethics

- ✔ Anti-corruption and anti-bribery measures.
- ✔ Prevention of conflicts of interest and misuse of insider information for personal gain.
- ✔ Whistleblower protection and reporting of unethical activities.
- ✔ Commitment to non-discrimination.
- ✔ Confidentiality and safeguarding sensitive information.
- ✔ Opposition to unfair competition.
- ✔ Focus on occupational health, safety, and work environment well-being.
- ✔ Safeguard the security of information and information systems.



Let's care People

Collaborate to develop personnel to be skilled individuals, great teams, and an excellent organization.

Labor Practices and Human Rights

- ✔ Fair employment practices.
- ✔ Retain and develop employee potential.
- ✔ Non-discrimination and equal opportunity.
- ✔ Support freedom of association.
- ✔ Support the right to collective bargaining.
- ✔ Support the right to fair compensation for a decent standard of living.
- ✔ Limit and reduce unnecessary working hours.

Occupational Health, Safety, and Environment

- ✔ Workplace safety and environmental conditions.
- ✔ Provision of personal protective equipment (PPE).
- ✔ Emergency preparedness and response.



Let's care Social

Collaborate to conduct business with social responsibility, environmental friendliness, and sustainable growth together.

Community and Social Development Participation

- ✔ Implement projects to develop communities and society.
- ✔ Build collaborations to develop innovations that enhance society and the environment.

Environmentally Friendly Business Operations

- ✔ Respond to climate change and reduce greenhouse gas emissions.
- ✔ Use resources efficiently.
- ✔ Use energy efficiently.
- ✔ Use water efficiently.
- ✔ Reduce waste generation from production processes.
- ✔ Reduce pollutant emissions.
- ✔ Minimize the impact on biodiversity.

Prioritization and Classification of Suppliers Groups

Prioritization and Classification of Suppliers Groups

The Company has classified its critical suppliers in the energy business to effectively analyze and establish strategies for procurement in an efficient and systematic manner. The classification criteria for partners are based on the size of purchase value as follows:

Supplier Group	Classification of Suppliers Groups	Amount (Supplier)	Amount (Supplier)
Critical Supplier Tier 1	Suppliers with regular purchases and a purchase value of 10 million baht or more are classified as critical partners, directly related to the production process and service delivery, difficult to replace, and with few players in the market. The Company evaluates them through Supplier Evaluation and/or Onsite Audits.	22	897,037,318
Non-Critical Supplier Tier 1	Suppliers with medium-level purchases and a purchase value between 5 to 10 million baht. The Company evaluates them through Supplier Evaluation and/or Supplier Self-Assessment forms.	19	138,657,694
Tier 1 Suppliers	Suppliers with regular purchases and a purchase value of 10 million baht or more are directly related to the production process and service delivery. The Company evaluates them through Supplier Evaluation and/or Supplier Self-Assessment forms.	19	3,299,349,487
Other Suppliers	Suppliers with a purchase value of less than 5 million baht. The Company evaluates them through Supplier Evaluation and/or Supplier Self-Assessment forms.	573	231,595,967
Total		633	4,566,640,466

In 2024, the Company had 22 critical supplier tier 1, 19 non-critical supplier tier 1, and 19 tier 1 suppliers by participating in the evaluation of suppliers related to sustainability issues and communicating the business ethics of suppliers, 9.48% of the total number of suppliers were involved, which accounts for 94.93% of the total purchase value.

Selection of New Suppliers

The Company selects new suppliers through an evaluation/ selection form that covers environmental, social, and governance (ESG) aspects, including labor practices based on human rights principles. In 2024, 10 new partners passed the evaluation criteria and were registered as new suppliers, with a total order value of 272,987,100 Baht. Additionally, the Company considers hiring subcontractors, setting sustainability conditions in all contracts with partners to prevent violations or unethical business practices, environmental harm, and human rights violations.



Supplier Risk Assessment

The Company conducts a supplier risk assessment to rank the risks that could impact the business operations. This assessment covers the entire procurement process, starting from registration, new partner selection, partner evaluation, and monitoring partner performance. The Company has defined the risk assessment criteria, considering the likelihood and impact severity of potential risks as follows:

Level	Risk	Risk likelihood	Impact severity
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 million baht
3	Moderate	Once a year	100,000 - 499,999 million baht
2	Low	Once every 2-4 years	50,000 - 99,999 million baht
1	Very Low	Once every 5 years	Not exceeding 50,000 million baht

The sustainability risk issues related to suppliers are assessed across economic, social, and environmental aspects, covering both new and existing suppliers. In 2024, there were 22 critical suppliers tier 1, accounting for 100% of the critical suppliers that the Company assessed for risks. As a result of the risk assessment, it was found that most suppliers have a medium level of risk. If the risk assessment reveals any issues with high to very high risks, the Company will implement risk management measures to bring them to an acceptable level. In addition, the Company identifies supplier risks by considering the relevant risk factors as follows:

Risk

Risk factor





Economic risk

1. Financial status and stability of suppliers: Issues related to the financial stability of suppliers, such as bankruptcy or a shortage of capital affecting their ability to deliver goods or services.
2. Price volatility in the market: Rapid price changes in the market, such as oil or raw material prices, which can directly impact the cost and pricing of the supplier's products, making it difficult for the company to predict future expenses accurately.
3. Impact from failure to adapt to market/ technological changes: Suppliers' inability to keep up with market or technological changes may affect their competitiveness and ability to deliver on expectations.
4. Uncertainty in product and service quality: Issues like the production of sub-standard goods or services that do not meet customer expectations, which can affect customer satisfaction and the company's long-term credibility.



Environmental risk

1. Non-compliance with environmental laws: If suppliers violate environmental laws or regulations, such as pollution or the use of natural resources, this can lead to risks of fines or negative impacts on the company's reputation.
2. Supplier activities impacting climate change: Activities such as greenhouse gas emissions or ecosystem destruction that can have both cost and sustainability impacts on the organization.
3. Unsustainable use of natural resources: Overuse of resources like water or energy without sustainable planning, which could lead to future resource shortages.
4. Improper waste management: Poor waste management practices that lead to pollution and negative environmental impacts.
5. Disregard for environmental responsibility: Suppliers failing to meet environmental standards, potentially facing audits or lawsuits, which can lead to increased costs or operational disruptions, and harm to the company's reputation.

Risk	Risk factor
 Social risk	<ol style="list-style-type: none"> 1. Illegal/ unfair labor practices: Use of forced labor, child labor, or failure to pay fair wages. 2. Violation of workers' rights/ unsafe working conditions: Suppliers who fail to provide safe working environments or respect workers' rights. 3. Failure to support diversity and social inclusion: Suppliers not supporting diversity or social inclusion in the workplace. 4. Non-compliance with relevant laws/ regulations: Suppliers failing to comply with labor laws, environmental laws, or other relevant business regulations.
 Governance risk	<ol style="list-style-type: none"> 1. Lack of transparency in business operations: Issues such as corruption, inefficient management, or a lack of internal controls. 2. Management issues leading to trust/ compliance problems: Suppliers facing management issues that could lead to trust deficits or regulatory violations.



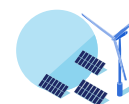
Evaluation of Supplier Performance

The Company evaluates the performance of suppliers after the delivery of goods or services, covering all supplier groups. The evaluation focuses on environmental, social, and governance (ESG) aspects, with the following evaluation methods and criteria:

Supplier Performance Evaluation Methods

Annual Supplier Evaluation	In-Process Evaluation	Worksite Evaluation
Evaluate supplier performance covering work performance, product quality, and sustainability	Evaluate social responsibility and environmental management	Collaborate to find solutions and plan joint capability development
Suppliers self-assess ESG aspects	Evaluate safety, occupational health, and environmental aspects	Evaluate the production process of suppliers with low annual evaluation results or high risks

Criteria for Evaluating Supplier Performance



Economic aspect

1. Product and service quality
2. Delivery time for products and services
3. Price of products and services
4. Pre- and post-sale service
5. Business ethics



Social aspect

1. Social responsibility
2. Treatment of workers and human rights
3. Occupational health and safety



Environmental aspect

1. Environmental measures and management practices
2. Environmentally friendly products or services

The scoring criteria and evaluation results for the year 2024 are as follows:

Scoring criteria		2024 Evaluation results
Level	Score (%)	Amount (supplier)
A = Excellent	> 80	232
B = Good	70-79	44
C = Fair	60-69	2
D = Improvement needed	50-59	0
F = Removed from Approved Supplier List (ASL)	< 50	0
Total		278

The Company has established guidelines for suppliers who 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 second evaluation still does not meet the standards, extend the corrective action period to 60 days. If improvements are not achieved within 60 days, the trading supplier will be removed 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.

Annual Evaluation and Supplier Visit

Criteria for Supplier Evaluation and Visits

The Company has established guidelines for the annual evaluation and visits to suppliers in the critical supplier tier 1 group, high-risk suppliers, and new important suppliers, to assess their operations according to standards and quality that cover sustainability issues.

Number of key suppliers visited in 2024



5 key suppliers

22.73%
(compared to
critical suppliers)

0.79%
(compared to
all suppliers)

Building Relationships with Suppliers

The Company fosters good relationships with suppliers through various activities to exchange knowledge, useful information, business updates, and policies and practices that may impact joint operations. This includes communicating sustainability initiatives to suppliers, with a focus on reducing social and environmental impacts.



Visited a solar floating project with installed capacity of 7MWp by GGC Tech Co., Ltd., which is a contractor supplier.



Visited demo site (Bang Sue) solar floating by Texplorer Co., Ltd., a subsidiary of SCG.

After the TOC date of each project, the Company held meetings to gather feedback from suppliers in the Subcontractor Solar Cell group and O&M (panel cleaning) work, focusing on collaboration and problem-solving, as well as incorporating suggestions to improve operational processes for greater efficiency in teamwork. In 2024, the Company began conducting meetings with 11 suppliers, where issues such as the excessive amount of paperwork were discussed. This led to delays in subcontractor management and added document-related burdens on contractors. The Company then presented these suggestions to the management and relevant departments to streamline processes and reduce unnecessary paperwork, enabling more efficient operations and fostering sustainable growth in cooperation with future suppliers.

Additionally, the Company promotes environmentally friendly procurement and collaborates with suppliers to develop eco-friendly products. In 2024, the value of environmentally friendly procurement related to the promotion of recycled plastic pellets in the production process accounted for 0.79% of total purchase value. The Company also supports the country's economic growth through local procurement, with domestic purchases making up 88.35% of the total purchase value.



Tax Management

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



- 16.6 Develop effective, accountable, and transparent institutions at all levels.
- 16.8 Expand and strengthen the participation of developing countries in global governance institutions.

Key Performance Results



Compliance with all relevant tax laws and regulations

Target
(100%)

Performance in 2024

100%



Challenge and Opportunity

Effective tax management with transparency, accountability, and strict compliance with tax laws helps the Company operate efficiently, avoid legal issues and negative consequences that could impact performance and investor confidence. However, efficient tax management can build trust with investors and stakeholders, reduce costs, and enhance competitiveness.

Tax Management Policy

The Company is committed to conducting business with a strong adherence to ethics, integrity, and transparency, in line with the principles of good corporate governance. The Company recognizes the importance of responsible tax management and compliance with tax laws and regulations in all countries where it operates. It carefully manages and evaluates tax-related risks to respond to changes in government policies or tax management approaches. The Company has established a tax policy to control potential risks, ensuring compliance with this policy to prevent any issues that may impact the Company and

to build trust with all stakeholders. Additionally, the Company has aligned its tax management direction and strategies across all group companies to ensure effective operations in accordance with legal requirements.

[Read more about Tax Management Policy](#)



Tax Management Approach

The Company has implemented measures to reduce the risk of errors in tax calculations, minimize the chances of penalties, and carefully plan taxes to prevent future tax-related issues. In addition, the Company manages taxes appropriately to maximize benefits for its Group and all stakeholders, enhancing understanding and the ability to apply tax strategies effectively. The Company communicates and organizes training courses, as well as continuously develops employees' tax knowledge, ensuring that staff can perform their duties accurately and efficiently.



Tax-related Risks Management

The Company adheres to and complies with tax laws, regulations, and guidelines with diligence, transparency, and a systematic approach to tax risk management. This ensures that the Company can properly assess and manage tax risks, whether arising from changes in tax policies or government tax management practices. The Company has established written policies and procedures regarding tax risk management and regularly evaluates the risks associated with all tax-related activities. This includes risks related to legal compliance and the risks involved in financial reporting by external auditors.



Tax Transparency

The Company reports its tax performance to the government with transparency, in compliance with the regulations on the disclosure of tax-related operations. It also supports policies that require the Company to publicly disclose information on tax benefits, as well as report its contributions to the overall economic development of the country. The Company is committed to being a good corporate citizen by excelling in tax governance and maintaining tax transparency, in order to build trust with society and all stakeholders.



Employee Code of Ethics Compliance

Employees are required to strictly adhere to the Company's rules, regulations, and operational guidelines to prevent risks that may impact tax matters and cause harm to the Company. To ensure this, the Company regularly communicates and organizes training sessions to continuously develop employees' knowledge. This helps foster a clear understanding of proper work practices, ensuring compliance with regulations and promoting ethical behavior in all aspects of their duties.

Effective Tax Rate

Information	Unit	2022	2023	2024
Net profit before income tax	THB	3,315,119,132.00	1,653,921,078.00	1,991,013,042.00
Income tax expenses	THB	300,741,190.00	179,028,132.00	329,935,335.00
Corporate income tax rate	%	20.00	20.00	20.00
Effective tax rate	%	9.07	10.82	16.57

The effective tax rate of the Company in 2024 is 16.57%, while the corporate income tax rate in Thailand is 20%. The difference in the tax rate is due to the exemption from income tax granted under the investment promotion benefits for renewable energy-based electricity generation by the Company and its group.



For a Livable Society

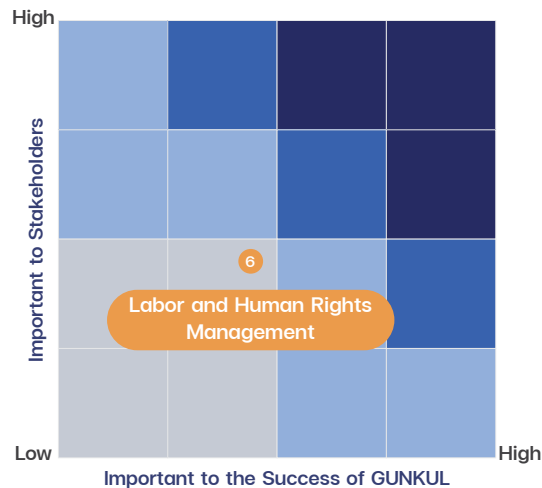
Creating a strong and livable society by giving equal importance and fairness to all stakeholders, without discrimination, while respecting human rights.

Human Rights Management	57
Human Resource Management	63
Occupational Health and Safety Management	75
Customer Relationship Management	82
Community and Social Responsibility	87
Business Innovation for Social Creation	94



Human Rights Management

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



- 3.4 Reduce premature mortality through disease prevention and treatment, and support mental health and well-being.
- 3.6 Reduce the number of deaths and injuries from road traffic accidents.



- 4.4 Increase the number of people with necessary relevant skills, including technical and vocational skills for employment and meaningful work.



- 5.1 End all forms of discrimination against women everywhere.
- 5.5 Ensure that women fully and effectively participate and have equal opportunities to lead at all levels of decision-making in political, economic, and public life.



- 8.5 Achieve full employment and productive work, and ensure decent work for all women and men, including youth and persons with disabilities, with equal pay for equal work of equal value.
- 8.7 Implement measures to eliminate forced labor, end modern slavery, human trafficking, and all forms of exploitation
- 8.8 Protect labor rights and promote a safe and secure working environment for all workers, including migrant workers, especially female migrant workers, and those engaged in hazardous work.



- 16.10 Ensure that the public has access to information and the protection of basic freedoms, in accordance with national laws and international agreements.
- 16.B Promote and enforce laws and policies that prohibit discrimination for sustainable development.

Key Performance Results



Case regarding non-compliance with labor standards and human rights violations

Target
(None)

None

Performance in 2024



Challenge and Opportunity

Human rights issues are another aspect that the Company prioritizes, as they are directly related to fundamental rights concerning equality, fairness, and the dignity of every human being. This is especially important in today's society, which is diverse in terms of culture, race, religion, and social status. Respecting human rights guarantees that each individual will be treated fairly and not discriminated against for expressing their fundamental rights, such as the right to life, freedom of expression, and the right to choose religious freedom. Promoting and protecting human rights in business operations leads to the creation of an equitable society, reduces conflicts, and fosters sustainable development in areas such as health, education, and access to economic opportunities. Therefore, protecting human rights is a key foundation in building a better society and promoting peaceful coexistence.

Human Rights Due Diligence Process

The Company conducts Human Rights Due Diligence (HRDD) to identify, assess, and define measures to prevent and mitigate the impacts of human rights risks. This covers the Company's and its subsidiaries' business activities, as well as stakeholders in the business value chain, including employees, business partners, business allies, communities and society, as well as vulnerable groups involved, and is done through listening to the views of relevant stakeholders to ensure that the Company's business operations do not have a negative impact or lead to human rights violations. The human rights due diligence process consists of defining human rights policies, assessing risks and impacts, Establishment of Risk Prevention Measures and Control, monitoring and reporting, and handling complaints and remedying impacts.



1 Establishment of Human Rights Policy

Demonstrate policy commitment through the establishment of a human rights policy and communication with all stakeholder groups.



2 Risks and Impacts Assessment

Assess human rights risks and impacts to identify and evaluate the negative consequences of potential human rights issues that may arise in business activities and the business value chain.



3 Establishment of Risk Prevention Measures and Control

Integrate risk assessment results into internal management systems to establish guidelines and measures to prevent and mitigate any potential human rights-related impacts.



4 Monitoring and Reporting

Develop a system to monitor and evaluate the effectiveness of the established guidelines and measures to prevent risks and impacts that may arise from violations, and regularly communicate the results of the assessments and operations to relevant parties.



5 Complaint Mechanism and Impact Remedy

Establish channels for stakeholders, both internal and external to the organization, to report concerns, including human rights issues. Set up an impartial and comprehensive investigation process, with the assurance that reports will be handled confidentially. Additionally, ensure that remedy measures are in place for cases of human rights violations or individuals affected negatively by the Company's operations.

Human Rights Policy

In order to promote and protect human rights in business operations and prepare for new regulations and policies related to human rights issues, the Company has developed a human rights policy in alignment with the Universal Declaration of Human Rights (UDHR), the United Nations Guiding Principles on Business and Human Rights (UNGPs), the fundamental rights at work according to the International Labour Organization (ILO), and relevant labor regulations and laws in each country where the Company operates. This policy is communicated through various internal and external channels to ensure that the board, management, employees, and all stakeholders adhere to and strictly follow it on an ongoing basis. This is to ensure that the Company's business operations are free from human rights violations, based on respect for values and equality, and set as the basic framework of responsibility the Company must adhere to towards stakeholders as follows:





Promote equality, diversity, equity, and respect for differing opinions

Show mutual respect and treat each other equally, free from discrimination. Not differentiate based on physical or mental characteristics, race, nationality, religion, gender, language, age, skin color, education, social status, culture, customs, sexual orientation, disability, or any other factor.



Not using illegal labor

Operate in compliance with the law to prevent the use of forced labor in all forms, child labor or labor under the age limit set by law, prison labor, bonded labor, debt bondage, military labor, slavery, modern slavery, and human trafficking in all forms.



Treat workers fairly and without discrimination

Establish processes and conditions for employment that cover recruitment, appropriate and sufficient welfare and compensation to support the livelihood of all employees. In addition, promote personnel development to ensure fairness and equality, and encourage the right to work in a good and safe environment to reduce the risk of accidents and health impacts.



Respect for human dignity

Respect for human dignity and fundamental freedoms as prescribed by the constitution. Promote the right to association, peaceful assembly, and the right to join groups or choose representatives for negotiation. This also includes the right to life and property security, as well as the privacy of all stakeholders.



Communicate directly with stakeholders

Communicate and convey human rights policies and practices through training, meetings, or various related activities to directors, executives, employees, as well as partners, business allies, and relevant stakeholders. Additionally, establish channels for complaints and/or grievances, along with processes for addressing them effectively and fairly for all parties, ensuring that operations are subject to review and transparency.

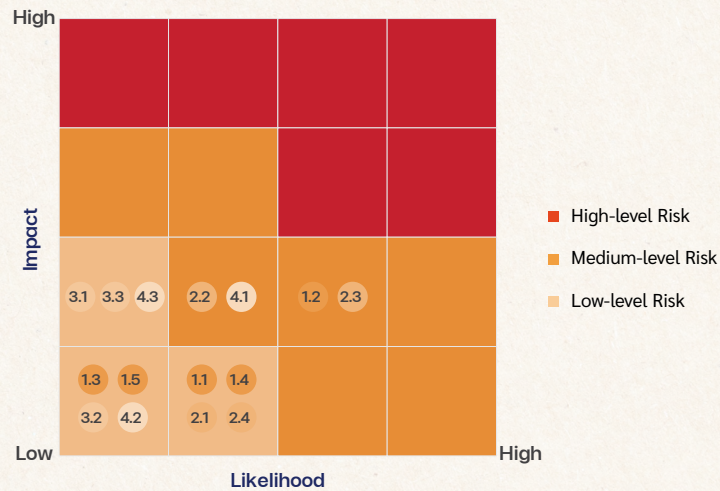
Human Rights Risks Assessment

The Company conducts Human Rights Risks Assessment (HRRRA) under human rights due diligence process through reviewing and identifying human rights risk issues that have occurred or may occur due to its business operations. This includes activities related to 3 business groups: energy business, high-voltage electrical equipment business, and engineering and turnkey business. The Company also considers stakeholders in the business value chain, such as business partners. The risk level is assessed by evaluating the likelihood of risks occurring and the severity of their potential impact. This helps identify human rights risk issues and establish measures to prevent and mitigate any potential impacts. The scope of the human rights issues is as follows:

Employee rights	Business partner / Contractor rights	Customer rights	Community rights
1.1 Working conditions (excessive working hours)	2.1 Working conditions (excessive working hours)	3.1 Health and safety	4.1 Health and safety
1.2 Health and safety	2.2 Health and safety	3.2 Discrimination	4.2 Living standards
1.3 Employment of illegal labor (child labor, forced labor, and human trafficking in all forms)	2.3 Employment of illegal labor (child labor, forced labor, and human trafficking in all forms)	3.3 Personal data violations	4.3 Right to secure land ownership in communities
1.4 Discrimination	2.4 Discrimination		
1.5 Freedom of association and the right to collective bargaining			

[Read more about Human Rights Policy](#)






Human Rights Risk Assessment



From the review of the 2024 assessment, it was found that most human rights issues pose a low-level risk, including the working conditions of employees and business partners/ contractors (1.1, 2.1), the employment of illegal labor (1.3), discrimination against employees, business partners/ contractors, and customers (1.4, 2.4, 3.2), freedom of association and the right to collective bargaining for employees (1.5), customer health and safety (3.1), customer personal data violations (3.3), living standards (4.2), and the right to secure land ownership in communities (4.3). While human rights issues that are at a medium risk level include employee health and safety, business partners/ contractors at work sites, and nearby communities (1.2, 2.2, 4.1), as well as the employment of illegal labor in the supply chain (2.3). The assessment did not identify any human rights issues at a high-risk level.

Establishment of Risk Prevention and Control Measures

Since the assessment results did not identify any human rights issues at a high level, the Company integrated the results of the medium-level risk assessment to define measures for preventing and reducing the impact of the internal management system. This aims to reduce and control the likelihood and severity of impacts that may affect stakeholders in the business value chain, as follows:

Risks Related to Human Rights	Stakeholders	Preventive Measures and Risk Control Measures
Employment of illegal labor (child labor, forced labor, and human trafficking in all forms) in the supply chain	 Employee  Business partners / Contractors	<ul style="list-style-type: none"> Define human rights policies as practices to align with labor standards, laws, regulations, and international and local frameworks related to labor use, to prevent the use of illegal labor, child labor, forced labor, and human trafficking in all forms. Assess and select, assess risks, and assess the effectiveness of business partners and contractors in relation to human rights issues. Ensure that contracts include sustainability terms in every agreement to prevent violations or unethical business practices, environmental damage, and human rights abuses by partners and contractors involved.
Health and safety of employee Business partners/ contractors in the workplace and nearby communities	 Employee  Business partners / Contractors  Communities and Society	<ul style="list-style-type: none"> Create a work environment and safety conditions that comply with relevant regulations, requirements, and laws. Develop work standards to control operations and ensure safety and compliance. Provide training on occupational health and safety to employees and contractors before starting work. Conduct annual emergency drills and training for employees and relevant stakeholders.

Monitoring and Reporting

The Company has established a process for reviewing, monitoring, and assessing the effectiveness of measures to mitigate and control risks, including the potential impacts from human rights violations, through oversight starting from the board level. The Board of Directors has delegated authority and responsibilities to sub-committees consisting of the Risk Management Committee, which is responsible for overseeing and monitoring the management of risks related to human rights, which is part of sustainability risks (ESG Risk), to ensure that the measures in place are effective in preventing and controlling risks. And the Good Corporate Governance and Sustainable Development Committee, which is responsible for overseeing and monitoring various activities in line with the principles of good corporate governance and sustainable development. This is to ensure that the Company's operations are conducted with respect for and consideration of human rights of all stakeholders. This is achieved through continuous engagement with relevant stakeholders and by requiring regular reporting on human rights management practices and policies to stakeholders, typically through the sustainability report, the Annual Registration Statements (Form 56-1 One Report), or the Company's website.

In addition, the Company communicates and provides training to employees on human rights policies to ensure they understand the best practices for preventing human rights violations within the Company. This also includes preventing involvement in violations by business partners within the value chain. The Company has established a labor welfare committee to represent employees in overseeing and promoting equitable and fair practices and developing labor operations. Additionally, the committee helps enhance understanding of fair operations based on human rights principles, assists with labor-related issues, and creates a labor network within the Company. The Company has opened channels for communication and feedback to continuously improve the employee welfare processes. The labor welfare committee has the following roles and responsibilities.

1. Collaborate in summarizing, consulting, discussing, and proposing solutions to problems, as well as providing accurate information to the management in order to arrange appropriate welfare and support for the cost of living that meets the needs and is sufficient for employees' livelihoods.

2. Monitor, control, and oversee the compliance with the Company's labor standards to prevent violations of labor rights, illegal employment, child labor, forced labor, or working beyond necessary working hours.
3. Monitor, control, and oversee the welfare provided by the Company to employees, and develop and improve it to benefit both employees and the Company.
4. Serve as a representative for negotiations, communications, and act as a good role model according to the mutual agreements.

Complaint Handling and Impact Mitigation

Channels for Reporting Whistleblowing or Complaints

The Company has established channels for reporting whistleblowing or complaints on labor and human rights issues, which are the same channels used for reporting corruption. The Company defines the involved parties, the process for receiving complaints, investigation procedures, and penalties as follows:

Channels for Reporting Whistleblowing or Complaints



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
548 One City Centre (OCC), 44th Floor, Phloen Chit Road, Lumpini, Pathum Wan, Bangkok 10330



"Whistle Blowing and Complaints Box"
(The box is located within the Company and can only be accessed by the Secretary to the Audit Committee)

The Company conducts risk assessments to prevent potential human rights violations that may arise from business activities on an ongoing basis. It also establishes preventive and control measures, including remedies in case of violations related to labor standards and human rights.

Since in 2024 the Company did not encounter any incidents of non-compliance with labor standards or human rights violations, no remedies or corrective actions were required.

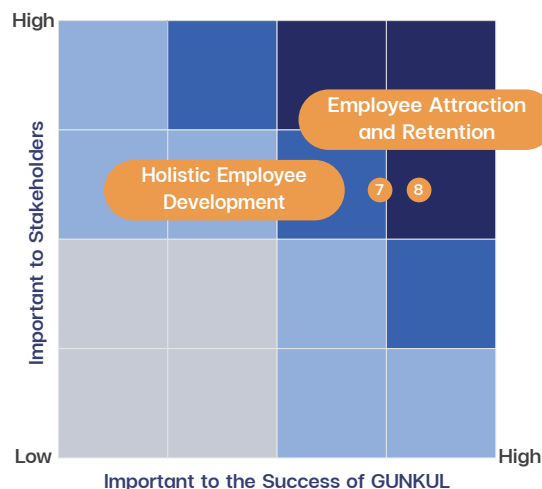
Results of Human Rights Management

The Company received the Outstanding Role Model Organization in Human Rights Award 2024 from the Department of Rights and Liberties Protection, Ministry of Justice, selected by Thailand Human Rights Steering Committee, to serve as a role model for other organizations in conducting business with respect for human rights. Gunkul Engineering PCL received the Human Rights Award in the large-scale business organization category at the “**Outstanding level**” and G.K. Assembly Co., Ltd. received the Human Rights Award in the medium-scale business organization category at the “**Good level**”. This recognition reflects the Company’s vision and commitment to conducting business under the principles of respect for human rights, in full compliance with both national laws and international standards. The Company has adopted the ESG (Environmental, Social, and Governance) framework as its guiding philosophy to operate with transparency, ethics, and in accordance with human rights policies. This is done to improve the quality of life for society without violating human rights, focusing on risk management and promoting sustainable growth alongside stakeholders, with a strong emphasis on respecting diversity, equality, and social differences.



Human Resource Management

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



- 4.4 Increase the number of youth and adults with relevant skills, including technical and vocational skills for employment, meaningful work, and entrepreneurship.



- 8.5 Achieve full employment and productivity, as well as meaningful work for all, including youth and persons with disabilities, ensuring equal pay for equal value work.
- 8.7 Implement measures to eliminate forced labor, end modern slavery, human trafficking, and all forms of labor exploitation.
- 8.8 Protect labor rights and promote a safe and secure working environment for all workers, including migrant workers, especially female migrant workers, and those in high-risk jobs

Key Performance Results



Challenge and Opportunity

The renewable energy industry is currently undergoing rapid changes and growth, as both the industrial and household sectors begin to transition towards a low-carbon society. This shift requires companies to have skilled, knowledgeable, and adaptable personnel who can cope with these changes. If employees lack the necessary skills or are unable to adapt in time, it may impact the business's competitiveness. Additionally, employee care and retention are significant challenges, as skilled and specialized employees play a crucial role in driving the business towards its organizational goals. Therefore, the Company places great importance on providing appropriate benefits and compensation, while also creating a positive

working environment that promotes diversity, respects differences, and offers equal opportunities for skill development in both technical and managerial aspects. This approach not only enhances work efficiency in alignment with the Company's core competencies but also fosters employee engagement and motivation, which helps reduce turnover rates. Furthermore, it contributes to building a strong employer brand in the labor market, attracting skilled professionals to join the team. As a result, the Company becomes a leader in the comprehensive renewable energy business, capable of competing and growing sustainably.

Human Resource Management Approach

The Company cares for and retains its employees through the "RISE" program for HR Transformation, which focuses on elevating human resource management to prepare employees for rapid changes, especially in the context of economic fluctuations and global factors. As such, the Company must have flexible management strategies to care for and retain a diverse workforce, encompassing various attitudes and values toward work. This includes areas such as employee care, benefits, compensation, recruitment of potential talent, motivation creation, skill development, work challenges, and career progression pathways. All of these elements form the foundation for strengthening employees and building an organization that serves as

a learning hub, leading to the creation of sustainable business value. The Company has developed an employee care and retention approach that aligns with organizational growth in the following ways:



The Company begins by building resources to ensure that employees work happily, inclusively, and equitably. This is achieved by focusing on the recruitment process to attract talented individuals who meet the needs and growth of the business. Additionally, the Company has made improvements to its compensation system to ensure it remains competitive within the same industry. The Company develops new work models and challenges through an effective performance evaluation system (Key Performance Indicators), aiming to enhance skills and knowledge that align with the organization's core competencies. The Company also places significant emphasis on creating career progression pathways and succession planning to prepare for the sustainable and continuous growth of the organization. Furthermore, it promotes the creation of a learning organization, enabling continuous growth and innovation through training plans focused on developing skills and the ability to adapt to rapid changes. These plans are in line with the digital economy and the Company's new business direction. The company has incorporated systems and technologies to support efficient operations, allowing for precise data analysis to predict and plan human resource strategies. Additionally, the Company fosters a strong organizational culture that supports sustainable development by creating an Employee Journey for all employees. This journey is guided by the GROWTH culture, which aligns with the Company's core strategies: attracting and retaining employees and providing holistic employee care.

Employee Retention

Fair Labor Practice

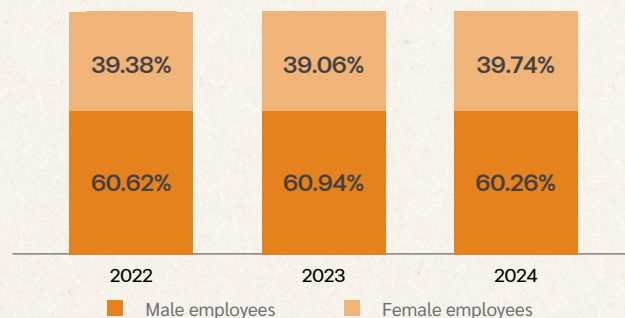


The Company operates based on strategies and approaches to create a prepared workforce that ensures employees work happily, inclusively, and equitably. It adheres to human rights principles and complies with local labor protection laws, as well as international labor standards and regulations. The Company is committed to creating meaningful jobs that are free from discrimination, child labor, or forced labor, and ensures that employees receive fair and adequate compensation and benefits to sustain their livelihoods. Moreover, the Company supports the freedom of association and the right to collective bargaining, while also reducing unnecessary overtime hours. The Company ensures that its recruitment and employment processes are fair and align with the direction of the business, promoting diversity, equality, and employee participation. This creates an environment where all employees can work

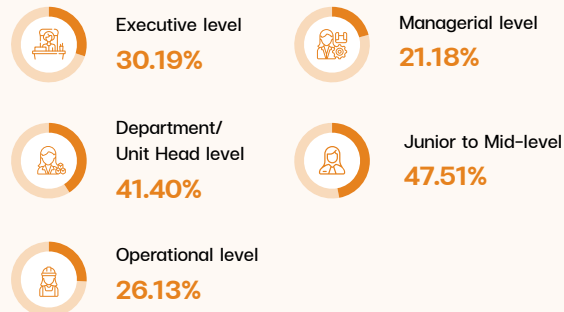
happily and efficiently. As of December 31, 2024, the Company employed a total of 1,140 employees, consisting of 687 male employees (60.26%) and 453 female employees (39.74%). Furthermore, the Company also promotes employment and creates job opportunities for disadvantaged groups in society, providing them with income to support themselves and their families, enabling them to live a balanced, equal, and happy life within society. Among the employees, 15 individuals belong to these groups, including 9 employees with disabilities and 6 employees who are elders.

In addition, GK Assembly Co., Ltd. applied for selection as an outstanding employer in labor relations and welfares by the Department of Labor Protection and Welfare and was awarded the Outstanding Employer in Labor Relations and Welfares for the year 2024, at the national level (Year 1). This award reflects the Company's commitment to being a role model in quality labor management, adhering to both local and international labor standards, and creating a positive and sustainable work environment for all employees.

Employment data by gender



Proportion of Female Employees at Different Levels



Proactive Recruitment

247
new employees hired



Amid the challenges in the labor market for the energy and construction engineering sectors, which face intense competition in recruiting skilled, knowledgeable, and specialized employees for the required positions, the Company places great importance on proactive recruitment processes to attract and motivate high-quality candidates. The goal is to ensure that employees are capable of effectively handling their responsibilities and contribute to the business's growth. Furthermore, they play a crucial role in driving the development of various renewable energy projects, from design and construction to installation and after-sales services. In 2024, the Company has outlined the following recruitment approaches:



Dual Education Program

The Company collaborates with educational institutions to create internship opportunities for students, raising awareness about the Company and attracting the interest of students. In 2024, the Company welcomed 16 students into its internship program, including 11 students in the general internship program and 5 students in the cooperative education program. These students gained practical experience in various departments within the Company, aligned with their skills and knowledge, preparing them to apply for jobs and perform effectively in the future.



Friend get Friends Program

The Company provides employees with the opportunity to refer friends or acquaintances who possess the qualifications suited for open positions. This approach reduces recruitment time and increases the chances of attracting candidates who fit the Company culture. It also fosters collaboration and strengthens employee engagement within the organization, as employees who refer someone feel proud and involved in the Company's growth.



Expanding Local Recruitment Channels

The Company encourages the employment of local residents or people from nearby areas of operation, creating jobs and income within the community. In 2024, the Company hired 105 local workers for positions in its power plants, including roles for housekeepers and technicians.



Social Media Recruiting

The Company expands its recruitment channels via social media, using its Gunkul Career Facebook page to announce job openings. This platform allows the Company to reach a broad audience, enabling easy sharing and communication with potential candidates. In addition, the Company utilizes other recruiting platforms such as JOBSDB, JOBTHAI, and LinkedIn, depending on the nature of the job and the specific skills required.



Job Fair

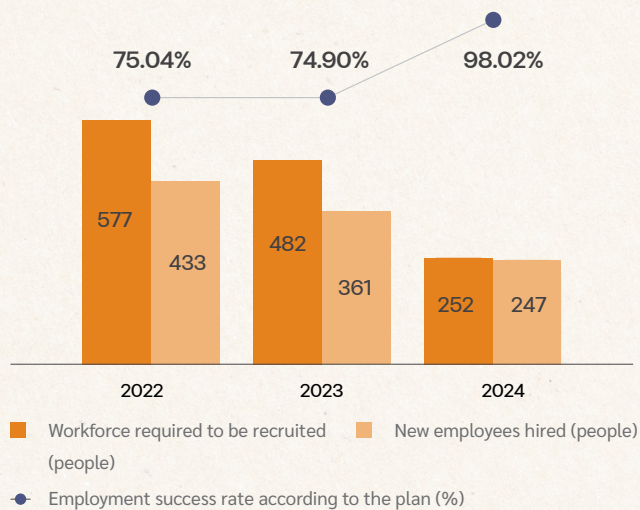
The Company participates in job fairs organized by universities and the Department of Employment to promote available job positions. These events also serve as opportunities to communicate the benefits and growth prospects of working in the renewable energy sector, helping to strengthen and sustain the renewable energy business.



Promoting Diversity and Equality in Recruitment

The Company ensures equal opportunities for all candidates, promoting diversity in terms of age, gender, sexual orientation, ethnicity, nationality, religion, or disability. By embracing different experiences and perspectives, the Company aims to build a workforce that reflects a wide range of backgrounds and ideas.

Recruitment and New Employees Hiring Data



Fair Benefit and Compensation

The Company focuses on promoting employees' ability to create value and develop themselves alongside the organization, as well as enhancing organizational commitment and motivation through the provision of appropriate and adequate benefits and compensation. This includes monetary compensation, such as paying for performance that is fair and rewarding, as well as non-monetary compensation, such as a good working environment, an efficient working system, safety and occupational health standards, and a work environment that promotes employee happiness. Career development, as well as activities to foster organizational commitment, are also prioritized to ensure that every employee feels valued and can grow sustainably with the organization. The Company allocates benefits and compensation for all employees as follows:



Monetary Benefits and Convenience Facilities

- Bonus payment and annual salary adjustment based on performance and skills
- Employee provident fund
- Employee uniform
- Overtime pays
- Travel, allowance, and accommodation
- Continuous improvements in annual salary structure and attractive benefits, such as salary adjustments according to changing structures, flexible working hours, additional vacation days based on years of service, and personal leave



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



Employee 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
- Group health insurance for employees' families



Mental Well-being and Employee Engagement Benefits

- Employee birthday activities / birthday gift giving
- Employee lunch catering activities during festivals, goal achievements, and executives' birthdays
- Activities that create a platform for employees at all levels to share knowledge with colleagues (Knowledge Sharing)

In 2024, the Company places great emphasis on enhancing benefits to support employees' families, particularly youth who are children of employees. This is considered a key mission by the Company, as it is committed to complying with laws and international standards related to children's rights, especially promoting children's and youth's right to access quality education to build a better future. Therefore, the Company has supported scholarships for employees' children, from kindergarten to undergraduate levels, with a total of 98 scholarships amounting to 547,000 Baht, to support the education of youth and create opportunities for them to grow in the best possible direction.



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

Employee Engagement and Commitment Building

The Company is committed to promoting equality at all levels of employees and values building strong connections between employees and the organization through the corporate culture of “GROWTH,” which reflects the belief that shared learning and alignment of actions will form a solid foundation for creating a strong work culture within the organization. This approach to engagement not only helps foster good relationships within teams but also serves as a key mechanism for retaining talented employees and attracting skilled individuals to join the Company. This leads to transformation and development in all areas, both in terms of expanding business opportunities and elevating the Company to become a sustainable leader in the integrated energy business, with the ability to achieve success in the coming years. In 2024, the Company strengthened the bond between employees and the organization through employee engagement activities as follows:



Activities to Drive Organizational Goals

Activities to drive the organization’s goals are aimed at creating development and enhancing the Company’s potential to achieve the defined vision and mission. These activities can be divided into several key areas focused on improving efficiency in human resource management, fostering innovation, and developing a sustainable business. Examples of activities carried out in 2024 include Town Hall events, the “Innovation Redefined: The Future Innovation Ideas are in Your Hands” event, and the “Energy Hero: Awakening the Hero in You” event.



Teamwork Enhancement Activities

Teamwork enhancement activities aim to promote collaboration and effective teamwork. These activities not only help build cooperation and good relationships among employees but also boost morale and encourage efficient collaboration. Examples of teamwork activities carried out in 2024 include Team Building events.



Employee Engagement Activities

Employee engagement activities aim to strengthen good relationships and unity within the organization. These activities help employees feel part of the organization and tighten the bonds between colleagues, focusing on working together and having fun. Examples of employee engagement activities in 2024 include the annual company party, recreational activities, group events to encourage employee interaction and bonding, and important holiday celebrations.





Social Responsibility Activities

Social responsibility activities, or CSR activities, are key mechanisms that reflect the Company's values and contribute to creating and maintaining a sustainable corporate culture. Organizing activities with social goals or those that benefit the community not only promotes corporate social responsibility but also fosters engagement and participation within the organization. Every employee can take part or volunteer in activities that benefit society, which strengthens the sense of unity and pride in the organization. Examples of social responsibility activities in 2024 include "Smile Together, Share from the Heart," charity egg cracking events, the "Exchange for Merit" activity, and blood donation drives.



Results of Employee Retention

In 2024, the results of the employee satisfaction and engagement survey with the organization stood at 74.00%, a decrease of 3.00% compared to the previous year. This change was due to adjustments in the survey questions to align with the diversity and expectations of employees from different generations, as well as the current situation which emphasizes the importance of a positive work experience, flexibility, and the ability to quickly and efficiently adapt to changes or new circumstances. It also highlighted the importance of engagement within the organization. The Company has used the survey results to analyze and develop policies that meet the diverse needs of employees, ensuring that every employee receives a positive work experience that contributes to sustainable performance. Additionally, the Company is committed to improving internal communication systems and human resource management to ensure transparency and fairness, which will help increase satisfaction and further strengthen employee engagement.

Results of Employee Retention	2022	2023	2024
New employment rate (%)	3.53	2.62	1.77
Employee turnover rate (%)	1.54	2.50	2.04
Employee satisfaction rate (%)	86.83	77.00	74.00

Holistic Employee Development

Since employees are the starting point and a key driving force in leading the organization to success, the Company has established a holistic employee development approach, aiming to create career opportunities and progression while developing potential alongside promoting ethics and integrity. This is done through a participatory work system and continuous learning opportunities to enable employees to grow and be prepared to face new challenges. The Company aims to develop employees with the characteristics, skills, and potential that the organization expects by aligning employee behavior with the corporate culture of "We GROWTH Together," which emphasizes unity and lays a solid and sustainable foundation for the organization. The Company focuses on developing employee potential in all aspects to ensure that the growth of employees and the organization move in the same direction, as follows:



Training Road Map



Knowledge Management



Career Progression Plan



Succession Plan

Training Road Map



The Company develops employee potential through the creation of training plans focused on preparing for organizational growth. This involves analyzing development needs and defining training programs that align with job positions to enhance personal skills, particularly job performance skills. Employees will be developed to progress into higher positions along their career paths. The Company adopts the 70:20:10 learning model, which blends different learning methods to develop employees at all levels. The model breaks down learning as follows: 70% comes from on-the-job experience, where employees learn through hands-on situations, 20% comes from learning through mentoring, coaching, or guidance from leaders, managers, or mentors, and 10% comes from formal training and classroom learning. Additionally, the Company has designed specific training plans for successor employees to prepare them for key positions. These plans focus on developing the necessary skills, knowledge, and competencies required to take on those positions and drive the organization's goals to success. The training design is based on experience, performance evaluations, and the responsibilities expected for each role.

After training, the Company tracks development progress and continuously adjusts training plans to ensure that employee development aligns with business goals. This process helps the organization grow alongside employee development, with a thorough analysis of training needs tailored to the employees' potential.

Steps	Details
1. Define objectives and goals of the organization	Analyze the organization's vision, mission, and strategy. Set human resources goals that align with the organization's direction.
2. Analyze required competencies for each job position	Study and define the job responsibilities and duties. Identify the skills, knowledge, and competencies necessary to perform the job.
3. Evaluate current employee competencies	Assess performance through tests, interviews, observations, and surveys. Compare the existing competencies of employees with the required competencies.
4. Identify skill gaps (Skill Gap Analysis)	Analyze the differences between desired competencies and actual employee competencies based on performance results. Prioritize skill gaps that impact the organization.
5. Define training methods and approaches	Choose the appropriate training types, such as internal training, external training, online training, or on-the-job training. Develop training content that aligns with both employee and organizational needs.
6. Implement training and monitor results	Plan and execute the training according to the defined approach. Monitor training outcomes using post-training evaluations and observe employees' work behaviors.
7. Evaluate and improve the training process	Analyze the outcomes of the training to see if it enhances employee potential. Gather feedback from employees and managers to improve future training programs and processes.

In 2024, the Company conducted a total of 241 training courses as part of its employee development plan. The goal was to develop and upgrade skills (Upskill - Reskill) and expand new necessary skills (Future Skills). The training was divided into 2 main categories of knowledge and skills as follows:



Training on Technical and Professional Skills

The Company consistently supports employee training in technical fields related to renewable energy, such as solar energy, wind energy, and biomass energy. Additionally, training in renewable energy project management is provided. Examples of courses conducted in 2024 are as follows:

Technical courses

- Electrical Safety for Employees Working with Electricity
- ISOIEC 17025:2017 Effective Quality Control & Quality Assurance for Laboratory
- Safety for Operators
- Workplace Safety at Heights
- Safe and Correct Forklift Operation
- Basic Firefighting and Fire Evacuation Drills
- Autonomous Maintenance
- Basic First Aid and CPR
- Battery Energy Storage System (BESS)
- Safety in Handling Hazardous Chemicals and Emergency Response

Professional courses

- Review of General Safety and Electrical Work
- Basic Safety for GWO
- Modern Supply Chain Management
- Updated Tax Laws
- Defensive Driving
- Income and Business Income Specific to PAEs vs NPAEs
- Cost Analysis and Control
- Unfair Dismissal and Laws HR Must Know
- Occupational Safety, Health, and Environmental Committee
- Workplace Safety Officer Level for Supervisors
- Workplace Safety Officer Level for Management



Training on Leadership and Management Skills

The Company supports training aimed at developing leadership and project management skills to enhance management capabilities and foster collaboration for effective operations that support sustainable growth. Examples of courses conducted in 2024 are as follows:

Leadership and management skills course

- Managing Teams for Success for Modern Supervisors (Modern Managerial Skills)
- Effective Cross-functional Collaboration (Cross Functional Team)
- Setting Performance Indicators (KPI)
- HR for Non-HR (People Management)
- Human Resource Strategy
- Leadership & Growth Mindset
- Internal Process for HR Strategy
- Proactive Project Management
- Unlock Your Creativity
- Growth Mindset
- Risk Management for Company Projects

Sustainability courses

- Role of Executives and Employees in Anti-Corruption
- ESG Sharing by KPMG
- Sustainability & ESG in Action
- Carbon Footprint Reporting for Organizations
- Setting Net Zero Carbon Emission Goals
- Business and Human Rights: Creating Opportunities for Thai Businesses to Grow Sustainably

Knowledge Management within the Organization

The transfer of knowledge and skills through

9 knowledge-sharing courses



1 course
from Executive level



1 course
from Department/
Unit Head level



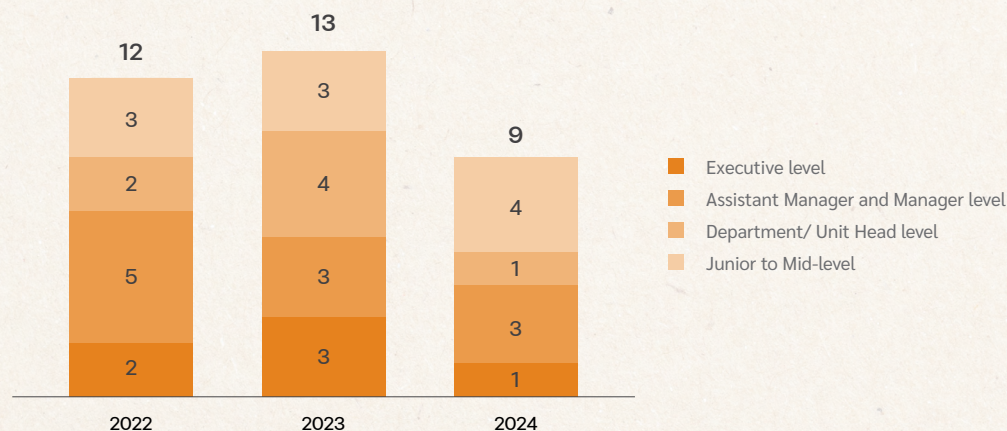
3 courses
from Assistant Manager
and Manager level



4 courses
from Junior to Mid-level

The Company focuses on managing internal knowledge by organizing knowledge-sharing activities where executives and employees with expertise in various fields share and extend their knowledge to other employees interested in learning. The goal of these activities is to promote learning and strengthen good relationships within the organization. The expected outcome is that employees will be developed in the knowledge and skills necessary for various types of work, allowing them to grow in their careers. Additionally, these activities aim to increase employee satisfaction and engagement with the organization. Furthermore, the Company has established a Knowledge Center to collect and provide access to valuable knowledge, enabling employees to continuously build upon their learning and personal development.

Knowledge sharing activities of employee each level (courses)



Career Progression Plan

44 employees
were promoted



5 Executives

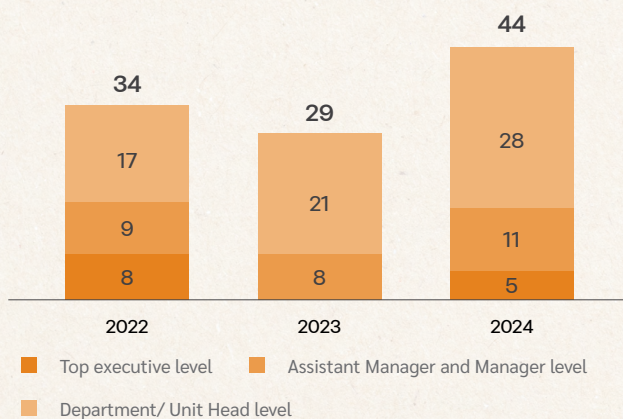


11 Assistant Managers and
Department Managers



28 Department/ Unit Heads

Employees who received promotions (people)



The Company supports resources and tools to develop employees' skills and capabilities, enabling them to plan and define their own career progression paths. Each year, employees undergo performance evaluations through competency assessments and Key Performance Indicators (KPIs) evaluations to ensure that they possess the necessary skills and knowledge for their roles and responsibilities. This helps employees improve their work performance, deliver results, and drive the achievement of goals as expected by the Company. The Company has policies, criteria, and procedures for selecting, evaluating, and promoting internal employees to ensure their readiness for growth within the organization. By offering promotions, the Company aims to retain and motivate employees to deliver high performance. It also provides employees with a sense of job security and a clear career progression path to higher positions. When employees acquire the necessary skills and knowledge for more responsible roles, they will be considered for promotions under the succession planning framework. Additionally, the Company uses the results of performance evaluations to determine compensation in line with employees' skills, promotion opportunities, and career progression. This reflects the Company's vision, mission, policies, and strategies for motivating employees to grow and develop sustainably within the organization. The criteria for promotions and career progression are implemented fairly and are reviewed by the HR Committee, which consists of senior executives from each department and is chaired by the Chief Executive Officer.

Development of Succession Plans for Key Positions

The Company has a proactive policy to prepare its workforce to prevent staffing shortages in key positions. The focus is on creating employee rotation and continuously recruiting new employees for the same roles, particularly in critical positions where the organization needs to develop a clear recruitment strategy and succession plan. This ensures readiness in advance for selecting and developing qualified personnel for key positions that may become vacant, while supporting the ongoing and sustainable growth of the organization.

[Read more about Succession Plan Policy](#)



Results of Holistic Employee Development

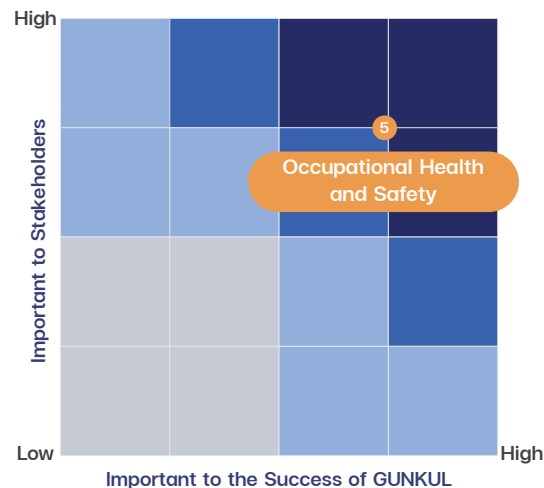
Through the promotion of development and skill enhancement, employees are equipped with knowledge and abilities to grow sustainably alongside the organization. The Company allocated a budget for employee potential development through 241 training programs, resulting in an average training hour of 13.28 hours per employee per year, an increase of 64.15% compared to 2023. The details of employee potential development are as follows:

Results of Holistic Employee Development	2022	2023	2024
Training budget (million baht)	1.20	3.63	3.69
Number of courses (courses)	95	122	241
Total training hours (hours)	6,843	9,471	15,139
Number of employees trained (persons)	1,609	1,625	3,772
Average training hours (hours per person per year)	5.61	8.09	13.28
Employees who received promotions (persons)	34	29	44



Occupational Health and Safety Management

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



3.4 Reduce premature death through disease prevention and treatment, and support mental health and well-being.

3.6 Reduce the number of deaths and injuries from road traffic accidents.



8.8 Protect workers' rights and promote a safe and secure working environment for all workers, including migrant workers and those in hazardous occupations.

Key Performance Results



Lost Time Injury Rate (LTIR)
(per one million hours worked)

Target
(Zero case)

Employees

0.74

Performance in 2024



Contractors

1.85

Performance in 2024



Fatalities due to work-related injuries
(cases)

Target
(Zero case)

Employees

0

Performance in 2024



Contractors

0

Performance in 2024



Challenge and Opportunity

Safety, occupational health and workplace environment management is a critical factor directly related to the health, safety, and well-being of employees. The main challenge is the oversight and allocation of resources to ensure sufficient capacity for monitoring and improving existing processes to meet standards, including relevant legal requirements. This also includes managing and reducing risks associated with work-related illnesses or accidents, especially in industries with work environments that pose risks to employee health and safety, such as working in power plants with high-voltage areas, or installing solar panels on rooftops. Additionally, rapid changes in technology and working methods, such as the use of automated machinery and new technologies, may present new risks that have not been encountered before. As a result, the Company must adapt, assess risks, and develop comprehensive prevention strategies, along with training, educating, and raising awareness among employees to ensure they can perform their tasks safely and consistently. Furthermore, operating under effective safety measures can support the creation of a positive organizational culture, enhance job satisfaction, and contribute to retaining quality employees. It helps reduce turnover rates, improves employee productivity, and builds confidence among employees, contractors, business partners, customers, and the community by responsibly managing and mitigating safety-related impacts.

Safety Management

The Company is committed to promoting the right to work in a healthy environment, ensuring protection, and minimizing the impacts on the health and safety of employees, contractors, and relevant stakeholders. This is set as a guideline for managing safety, occupational health, and workplace environment, as outlined in the Human Rights Policy. The aim is to support and encourage the Board of Directors, management, employees, and stakeholders to be aware of and adhere to this approach, in order to continuously improve and elevate safety standards beyond legal requirements. In addition, the Company is committed to being an accident-free organization and has set a quantitative goal to reduce the Lost Time Injury Frequency Rate (LTIFR) of employees and contractors to zero. The Company places great importance on establishing an occupational health and safety management system that complies with legal requirements and international standards, to ensure safety in both operational processes and individual safety. This encompasses employees, contractors, subcontractors, local communities, and all stakeholders involved in business activities with management approach as follows:

Safety Governance	Compliance Assessment	Risk Assessment
Appoint responsible persons for overseeing safety, occupational health, and working environment.	Review and assess compliance with relevant laws and regulations.	Identify hazards and assess safety risks, setting measures and action plans for prevention and correction.
Safety Culture Development	Monitoring and Inspection	Reporting
Communicate, provide training, and organize activities to foster health and safety among workers (employees and contractors).	Monitor the safety statistics of workers (employees and contractors) to assess the effectiveness of safety operations for continuous improvement.	Report safety statistics, investigation results, and actions taken in cases of incidents leading to injury or death from work-related activities.

Oversight of Safety, Occupational Health and Workplace Environment

The Company has a clear structure for overseeing safety operations, responsible for monitoring, inspecting, and continuously improving operational effectiveness. A Safety, Occupational Health, and Environmental Committee has been established, consisting of an executive representative as the committee chairperson, representatives from relevant departments as operational-level committee members, and safety officers as specialized committee members. The committee's duties include planning and determining measures to prevent and reduce work-related accidents, complying with laws and safety, occupational health, and environmental regulations, as well as other relevant legislation. It also promotes and supports workplace safety activities and supervises employees to ensure adherence to the Company's safety measures. The committee works to enhance operational safety by improving efficiency and promoting knowledge, understanding, and awareness campaigns, encouraging all levels of employees to actively participate in managing safety, occupational health, and environmental practices on an ongoing basis.



Safety Risk Assessment

To achieve the goal of becoming an accident-free organization and build confidence in workplace safety among workers, the Company mandates regular risk assessments to identify and evaluate potential hazards that could lead to work-related accidents. These assessments aim to determine the likelihood and severity of such hazards to establish control measures and safety plans for risk prevention concerning occupational safety, health, and environmental factors. The assessments cover activities conducted by both employees and contractors working in office buildings, factories, power plants, electrical stations, and ongoing construction projects. The safety risk assessment results for 2024 indicated that high-risk activities likely to cause injury or harm include working in high-voltage areas, working at heights, working with heat and sparks, working in confined spaces, and working with equipment, tools, and machinery. Therefore, the Company has set preventive and control measures, focusing on eliminating risks and hazards at work, preparing for potential emergency situations, and conducting safety work analysis. The company also requires work permits for high-risk tasks, as outlined below:

Safety Risk Assessment

1. Working in high-voltage areas
2. Working at heights
3. Working with heat and sparks
4. Working in confined spaces
5. Working with equipment, tools, and machinery

High-risk activities



Working in high-voltage areas

Preventive and control measures

- Workers must undergo electrical safety training and conduct a risk assessment (JSA) before starting work. They must also implement safety regulations and work procedures to ensure safe working conditions.
- Install safety signs (warning signs, prohibition signs, mandatory signs, and informational signs) at power stations, wind turbine fences, and areas with high-risk points within the power plant.
- Inspect tools, equipment, and machinery to ensure they are in proper working condition before starting work each time.
- When entering to install equipment or perform maintenance, power must be cut off from the energy source before starting work, and the “lock-out, tag-out” system must be applied every time work is performed.
- Working alone is prohibited. A buddy must be present at all times during work. The buddy should be able to assist in case of an emergency.



Working at heights

- Workers must undergo training in safety procedures for working at height, pass a health check and blood pressure measurement before starting work, and assess the risks (JSA) before beginning work. There should also be regulations and procedures in place to ensure safety when working at height.
- Analyze and inspect the work area to assess stable footholds before beginning work to ensure safety while working at height.

High-risk activities

Preventive and control measures



Working at heights

- Inspect equipment, tools, machinery, and the overall environment for safety before work begins, including checking fall protection equipment and installing temporary lifelines during the construction of a solar rooftop. The work area must be covered according to standards, and a walkway should be installed to prevent walking across skylight panels.
- Workers must wear fall protection equipment and the required PPE while performing tasks.
- All tools used at height must be secured with ropes or placed in safety harness bags or pouches.
- Ensure proper communication systems are in place, such as using radios, for the safe transfer of materials and tools during work at height.



Working with heat and sparks

- Workers must undergo training in safety procedures for working in areas with heat and sparks and assess the risks (JSA) before beginning work.
- Install fire-fighting equipment such as fire extinguishers, sprinkler systems, or automatic fire suppression systems in areas at risk of sparks or fire, and conduct emergency fire drills.
- Workers must wear the required PPE while performing tasks.
- Work areas must be cordoned off using traffic cones, barriers, and safety signs, with unauthorized persons restricted from entering the work area.
- Use fire-resistant or non-combustible materials in areas at risk of sparks or fire.
- Regularly inspect the readiness of electrical wires, equipment, and systems.



Working in confined spaces

- Workers must undergo medical examinations and training on working in confined spaces.
- Workers must measure their blood pressure before starting work and assess the risks (JSA) before beginning operations. Additionally, safety regulations and procedures must be in place for work in confined spaces, including obtaining a work permit.
- Workers must request a work permit for confined space operations each time.

High-risk activities

Preventive and control measures



Working in confined spaces

- Air quality must be measured before entering and during work, ensuring oxygen levels are between 19.5% and 23.5%, and monitoring other hazardous gases that may affect health and fire risks. Equipment used in confined space work must meet the required standards.
- Adequate ventilation and lighting must be provided throughout the work duration.
- Clear and visible signs reading “Confined Space - Hazardous - Do Not Enter” must be displayed at entry points, and the work area should be cordoned off.
- Ensure easy access and exit routes for emergency evacuation. In case of an emergency, no one should attempt to rescue victims from a confined space alone without measuring the gas levels. Rescuers must wear appropriate PPE that matches the hazardous conditions.



Working with equipment, tools, and machinery

- Workers must undergo training on operating the relevant equipment and machinery and assess the risks before starting work (JSA).
- In cases where cranes or telehandlers are used, the operator or driver must have received training and hold a valid driving license as required by law.
- In areas with traffic, work zones must be cordoned off using traffic cones, barriers, safety signs, and restrict access to unauthorized personnel in the work area.
- Inspect the readiness of equipment and machinery, such as electrical systems in construction sites. Temporary electrical panels must meet standards, with circuit diagrams designed and certified by an engineer posted at the site, along with warning signs, the responsible person’s name and phone number. Daily inspections must be carried out, and grounding systems and automatic cut-off systems must be installed. Additionally, at least one fire extinguisher with a fire rating of 6A20B must be available, and electrical cables connected to temporary electrical panels should have double insulation.



Building a Safety Culture

The Company fosters employee and contractor involvement and promotes a safety culture through communication, training, and job-specific activities. These include safety training for employees and contractors before starting work, site safety inspection, as well as Safety Patrols and Safety Audits to quickly identify and address hazardous risks. The Company also conducts workplace monitoring to assess and improve the work environment in compliance with legal standards. Additionally, 5S activities are carried out in the factory and power plant areas. Safety Talks or Toolbox Talks are conducted with employees or contractors before starting new tasks or when there is a change in the work location. The Company also organizes KYT (Kiken Yoshi Training) activities to analyze or predict potential hazards in the work being performed and to develop control measures to prevent these dangers. The KYT safety analysis method aims to instill a safety-conscious mindset in workers, encouraging them to work cautiously. Before starting each workday, especially for construction projects, these activities help raise awareness and emphasize the importance of safety practices consistently. In 2024, the following activities were conducted:



Safety Training

- Basic Safety Training Course: 248 participants
- Electrical System/Power Station Safety Training Course: 219 participants
- Confined Space Safety Training Course: 50 participants
- Work-at-Height Safety Training Course: 180 participants
- Safety Training for Installation and Work with Machinery and Vehicles: 102 participants
- Safety Personnel Training Course: 155 participants
- Basic Firefighting and Fire Evacuation Drills: 767 participants
- Hazardous Chemicals Safety and Emergency Response Training Course: 1 participant
- Basic GWO Safety Training Course: 11 participants
- Emergency Procedures for High-Voltage Electric Pole Collision Training Course: 48 participants
- Basic First Aid and CPR Training Course: 50 participants





Site Safety Inspection



Safety briefing for employees and contractors before starting work



Workplace Monitoring



KYT and 5S Activities



Safety Tracking and Monitoring

The Company continuously monitors and tracks the safety statistics of workers to assess the effectiveness of safety operations. The Safety, Occupational Health, and Environmental Committee is responsible for investigating work-related incidents or accidents by analyzing the causes of accidents and determining preventive and corrective measures after the event. Additionally, the committee identifies responsible parties for tracking and reviewing the implementation of these measures. The investigation report is presented to the project manager to ensure effective corrective actions. Furthermore, the Company utilizes various communication channels to report and raise awareness of unsafe incidents or accident risks, aiming to prevent recurrence of similar events or accidents in the future. In cases of damage or injury caused by work-related incidents or accidents, the Company will provide compensation to ensure that injured individuals receive proper care and assistance.



Safety Performance Results

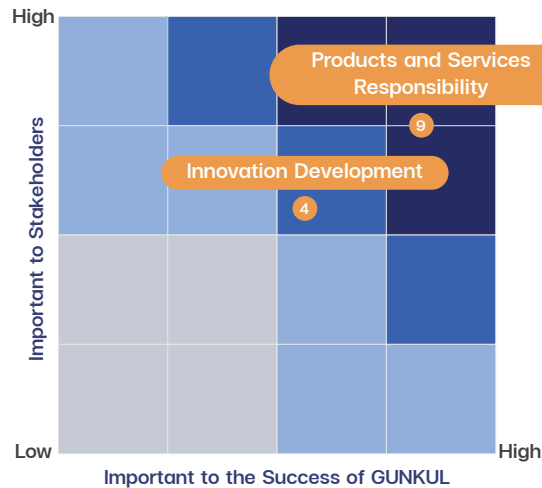
Safety Performance Results	2022	2023	2024
Number accidents (cases)	17	26	23
Number of work-related accidents resulting in lost time (cases)			
Employees	4	1	2
Contractors	0	1	3
Lost Time Injury Rate (LTIR) (per one million hours worked)			
Employees	1.44	0.36	0.74
Contractors	N/A	0.64	1.85
Fatalities due to work-related injuries (cases)			
Employees	0	0	0
Contractors	0	0	0
Work-related illness and disease rate (per one million hours worked)	0	0	0

Lost Time Injury Rate of employees and contractors are 0.74 and 1.85 respectively. As there were a total of 5 cases of work-related accidents resulting in lost time, the Company has not yet met its goal of becoming an accident-free organization. However, the Company provided first aid and sent the injured individuals for treatment by specialized doctors. An investigation was conducted to analyze the causes of accidents in order to determine preventive and corrective measures to avoid recurrence. Furthermore, the Company is working to enhance the safety operations to ensure more effective performance, as follows:

Incident	Cause	Preventive and Corrective Measures
Employee fainted	The working area was hot and humid.	<ul style="list-style-type: none"> • Increase break time for workers. • Provide sufficient drinking water for employees. • Supervisors to monitor employees for any abnormalities during work.
Maintenance employee got plastic water splashed on arm from injection molding machine	Employee did not wear PPE and did not follow the maintenance manual procedure	<ul style="list-style-type: none"> • Increase frequency of PPE checks before and during work. • Provide training to raise awareness about safety when working with machinery for relevant employees.
Contractor stepped on a nail	Contractor did not wear PPE (safety shoes) as required while working, and the working area did not meet 5S standards	<ul style="list-style-type: none"> • Increase frequency of inspections of the area before and after work. • Increase frequency of PPE checks (safety shoes) before and during work. • Properly store and segregate hazardous materials.
Motorcycle accident involving contractor working on underground power transmission and distribution project	Driver was under the influence of alcohol, and contractor did not wear required PPE (helmet) while working	<ul style="list-style-type: none"> • Inspect traffic management systems and protective equipment, such as installing barriers, lighting systems, and signals, to ensure safety around the construction area at all times. • Increase frequency of PPE checks before and during work. • Strengthen barriers and increase their weight to reduce impact force and accident severity.
Car crashed into barrier and contractor on underground power transmission and distribution project	Driver was under the influence of alcohol	<ul style="list-style-type: none"> • Strengthen barriers and increase their weight to reduce impact force and accident severity. • Install barriers and warning lights at a greater distance from the work area.

Customer Relationship Management

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



3.4 Reduce premature deaths from non-communicable diseases through support for well-being.



7.1 Increase the share of renewable energy in the global energy mix.



9.4 Enhance infrastructure and improve industries for sustainability, increase resource efficiency, and environmentally friendly technologies.



12.2 Achieve sustainable management and effective use of natural resources.



13.3 Develop education, raise awareness, and build human and institutional capacity to reduce impacts and adapt to climate change.

Key Performance Results



Customer satisfaction with products and services

Target
(≥ 90.00%)

Performance in 2024

89.21



Complaints regarding safety or environmental impact of products and services

Target
(None)

None

Performance in 2024



Challenge and Opportunity

Currently, renewable energy has become a key aspect of sustainable development, which the Company's integrated renewable energy business faces challenges in managing relationships and creating positive customer experiences amongst the rapid technological changes, as well as the diverse needs of customers and consumers in each segment. A quick and efficient response to customer expectations regarding service quality and modern products is essential and must be continuously implemented. The development and improvement of both service systems and long-term customer relationship management are crucial to enhancing the best possible experience and ensuring that customers gain the maximum benefit from utilizing renewable energy to its full potential.



Customer Relationship Approach

Since energy is a basic human right that everyone should have access to, the Company is committed to developing an integrated renewable energy business (One Stop Service) that covers the production of high-voltage electrical equipment, construction engineering, renewable energy power plants, maintenance services for power plants, and digital energy innovations. The goal is to make efficient and environmentally friendly renewable energy easily accessible and meet the electricity needs of both the industrial sector and households effectively. The Company places great importance on product quality development, improving production efficiency, and responsible service by focusing on building strong relationships with current customers and expanding customer base through modern technologies and innovations to develop sustainable infrastructure growth. This is achieved through collaboration with business partners, both domestic and international, to create a strong power grid, reduce the issue of energy access inequality, and enhance the quality of life through sustainable renewable energy use. The Company is ready to be a trusted partner in driving a low-carbon society and creating a better environment with customers, with an operational approach covering all business sectors as follows:

Energy Business



- Continuous expansion of the renewable energy power plant portfolio both domestically and internationally to ensure that all customer groups have equal access to clean energy at affordable prices, while also contributing to the reduction of greenhouse gas emissions, aiming for net zero.
- Development and stabilization of electricity production from renewable energy using modern production technologies and innovations.
- Development of digital platforms to improve and upgrade service systems.
- Enhancement of efficiency in operations and maintenance services to meet customer demands and ensure maximum satisfaction from the services provided.

High-Voltage Equipment Business



- Certification of product quality according to safety standards.
- Rapid response to customer needs.
- Support and participation in various activities of customers.
- Collaboration in helping customers find and develop new products to enhance the efficiency of sustainable electricity production systems.

Engineering and Turnkey Business



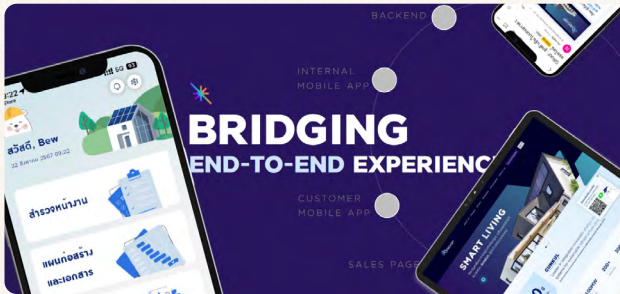
- Provision of quality and safe engineering and construction services in accordance with standards, with minimal project execution time, and in compliance with contract requirements and conditions.
- Development of team skills to adapt to customers and project tasks, responding to customer needs and expectations, and providing professional, fast, and timely consultation both before and after the service.
- Caring for and reaching out to all customer groups, using both positive and negative customer feedback as key points for continuously improving service delivery.
- Incorporation of new technologies and innovations into work management and execution processes to foster sustainable growth.
- Expansion of electrical engineering service business in other areas to offer customers a one-stop service solution.

Energy Ecosystem Platform and Innovations Business



- Development of energy potential to increase efficiency in all energy activities, improving and expanding options for current users by enhancing related infrastructure and services to be of higher quality, more stable, and sustainable.
- Development of online markets to provide easily accessible energy services with quality products at reasonable prices.
- Pioneering and expanding markets by exploring new perspectives, broadening reach, and recognizing untapped opportunities to offer beneficial solutions and services to society.
- Driving innovation by creating new innovations in the energy industry to break existing limits, promoting creativity, and developing technologies that can transform the future of energy and drive the transition to a sustainable ecosystem.

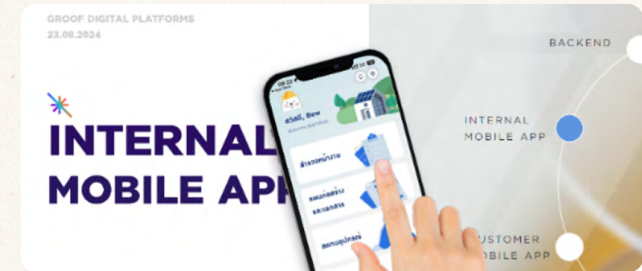
Development of Digital Platforms to Improve and Upgrade Service Systems



The Company recognizes the potential of clean energy in addressing the issue of insufficient electricity within the country. Therefore, it established GRoof under the concept of Smart Living by GUNKUL to provide solar roof system installation services to individual customers, from residential homes to SME businesses. The focus is on reducing energy costs while adhering to expertise standards in electrical engineering and continuous service development. As a result, various challenges, including technical issues, service quality, and customer expectations derived from operations, along with satisfaction assessments, have been used to develop a Customer Relationship Management (CRM) system to enhance work processes and ensure maximum efficiency. This system delivers the best care experience to customers by developing the GRoof DIGITAL PLATFORMS, an application that tracks the operation of solar roof system, checks important documents, and sends maintenance service alerts. The platform connects data and processes transparently, creating a positive user

experience for customers and a smooth working experience for operators. The primary goal is to build customer confidence and provide transparency in data management.

To support customers' rights to access accurate information regarding the production and usage of energy from solar roof systems, which enabling them to make informed decisions and reduce operational costs through the management of projects via a One Stop Service. This is achieved by using an internal mobile application to reduce the gaps between online and offline work processes for operators, while facilitating site surveys, installation planning, analysis, and systematic customer data management. This allows for effective tracking of status and project management, ensuring that installations and services for customers can be done quickly. In addition, customers can use the Customer Mobile Application to access information and view electricity production performance reports, as well as monthly savings in a Quick View format. The application also provides notifications when there are issues with the electricity production system and allows customers to immediately contact operators for inspection and maintenance. The results of developing this digital platform contribute to increased customer satisfaction by offering transparent services and easy access to information. It also reduces operational costs by applying digital technology to improve project management efficiency and reflects the Company's commitment to investing in innovations to build confidence and maintain leadership in the integrated clean energy market.



Certification of Product Quality According to Safety Standards



The Company manufactures and distributes high-voltage electrical equipment to both the state-owned electricity authorities and private agencies across the country, prioritizing the production of high-quality and safe products according to international safety standards. The Company's high-voltage electrical equipment has been certified with ISO 9001:2015 for quality management systems, ISO 14001:2015 for environmental management systems, including ISO/IEC 17025:2017 for testing and calibration laboratory competence, and has obtained certification for the competence of its testing and calibration laboratories. Furthermore, several products have been registered with the Ministry of Industry and certified by both domestic and international testing institutes.

The Company has also received the Industrial Products Standard (TISI) certification and the Made in Thailand (MiT) certification from the Federation of Thai Industries. Furthermore, it has been registered and certified for product and as a testing unit network by the Provincial Electricity Authority (PEA Product Acceptance: PPA). These certifications and product registrations help build confidence among customers, including both public and private sector users, and confirm the safety and high standards of high-voltage electrical equipment, particularly in terms of quality control, environmental management, and performance testing.

Engineering and Construction Services of High Quality and Safety Standards

The Company places great importance on high-quality engineering and construction services that comply with safety standards. In 2024, the Company provided construction services for a large-scale ground-mounted solar power plant (Solar Farm) with a capacity of 62 MW and a 22 KV power transmission system. The services covered all processes, from surveying, design, procurement of high-quality machinery and materials that met technical specifications and industry standards, to efficient and rapid construction execution, ensuring the project was delivered according to the contract terms and maximizing customer satisfaction. The development of the team's capabilities to expand the scope of integrated services and take the lead in constructing power plant projects, power transmission and distribution systems, as well as large substations, is another key goal of the Company. This enables the Company to deliver projects and meet customer expectations quickly and on time. It is also part of the Company's mission to contribute to stabilizing the power system and driving sustainable access to clean energy for society.



Development of Online Market to Provide Easily Accessible Energy Services

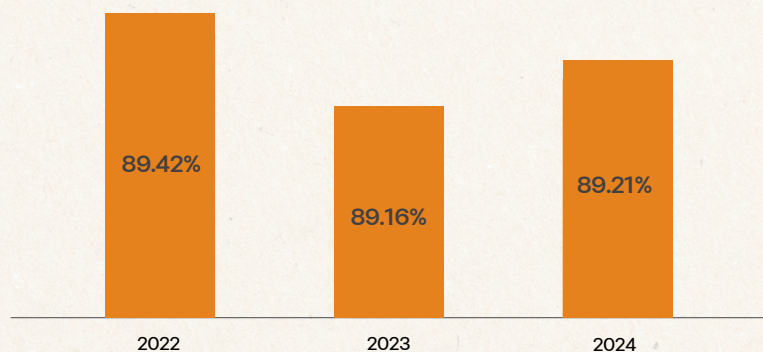
The Company is committed to revolutionizing the way electrical equipment and rooftop solar systems are traded. In collaboration with SCB 10X, it has created the platform GODUNGFAIFAA.COM, an e-commerce website for selling electrical equipment and solar cells, under the concept "Add Energy To Cart." The platform is continuously developed in partnership with leading global business partners like HUAWEI and SIEMENS to make energy services more accessible. With a wide range of quality products at reasonable prices, covering various services such as payment options, logistics systems, and connections between buyers such as electrical equipment stores, contractors, or general customers and manufacturers, both domestic and international, this helps reduce limitations in the trading process of electrical products and services. In addition, the Company aims to build and expand a learning community to enhance understanding in choosing high-quality products that can be used effectively. This will allow the platform to better serve both small and large contractors, as well as a wider customer base. Due to in 2023 GODUNGFAIFAA.COM stood out with its outstanding marketing efforts in collaboration with HUAWEI through online media and marketplaces as the Company continuously marketed to raise awareness and allow new customers to access solar cell systems, promoting the use of renewable energy. As a result, in 2024, GODUNGFAIFAA.COM received 2 awards: the Excellent Marketing Award and the Excellent Marketing Contribution Award at the Huawei Thailand Fusion Solar Ecosystem Partner Summit 2024. These awards reflect the Company's success as a leader in the online market for electrical equipment and solar cells, responding to customer needs and creating a comprehensive, positive experience while supporting a sustainable energy user community.



Customer Relationship Management Results

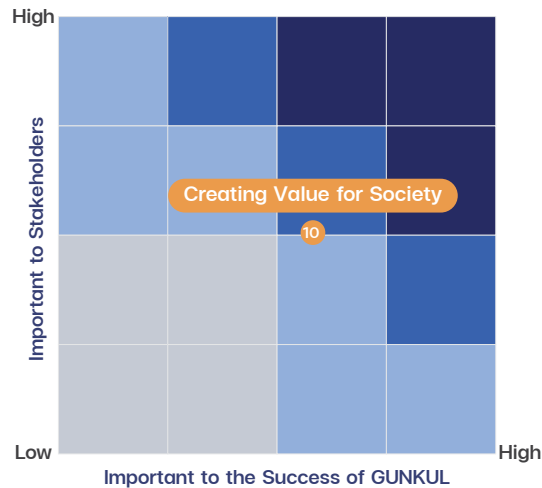
The Company conducts surveys to assess customer satisfaction with its products and services, using the survey results and complaints raised by customers to develop strategies for improvement. This includes enhancing and advancing products and services to meet quality standards and better respond to the needs and expectations of all customer groups. In 2024, the survey results showed that customer satisfaction with products and services was 89.21%, an increase of 0.05% from 2023, reflecting efforts to manage relationships and create positive experiences for customers across all business sectors.

Customer satisfaction with products and services (%)



Community and Social Responsibility

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



- 4.1 Ensure that all boys and girls complete quality primary and secondary education that is equitable and free of charge.
- 4.2 Ensure that all boys and girls have access to quality early childhood development, care, and pre-primary education.
- 4.3 Ensure that all men and women have access to quality education, vocational education, and higher education, including universities.



- 8.5 Achieve full employment and productivity, and ensure valuable work opportunities for all men and women, including youth and persons with disabilities, with equal pay for equal value of work.

Key Performance Results



Overall community satisfaction and engagement (%)

Target
(≥ 80.00%)

Performance in 2024

84.31



Significant complaints related to community (cases)

Target
(None)

None

Performance in 2024



Challenge and Opportunity

The Company believes that building continuous trust and positive relationships with the community and society is the key to gaining acceptance and cooperation for mutual development and growth. The key challenge is to strike a balance between driving business growth and promoting a good quality of life for the community and society. At present, people are facing social issues arising from a rapid and complex change in the economy, environment, and nature, which have led to social inequality, especially among vulnerable groups, low-income individuals, or those who cannot access educational opportunities, financial resources, employment, good living conditions, or quality healthcare. Such inequalities are likely to continue to rise if the Company operates without considering the basic rights of the community or without being mindful of the negative social impacts. This could lead to conflicts in the area and prevent the Company from building trust and positive collaboration with the community.



Community and Social Responsibility Approach

The Company is committed to living harmoniously as a good neighbor by supporting the transition to sustainable energy use to reduce social and environmental impacts. It fosters collaboration with stakeholders in every area, including community activities, local agencies, educational institutions, and civil society organizations, to promote a better quality of life for people in the community. This is achieved through surveying community needs and developing projects that address various aspects such as education, employment, health, well-being, community development, and cultural and social issues, all based on equality and respect for fundamental social rights, including the rights of children and youth. Moreover, the Company places great emphasis on using resources efficiently, supporting renewable energy use, reducing greenhouse gas emissions, and sustainably managing natural resources. This is in line with its goal to develop a clean energy business that is accessible to everyone,

reducing inequality and improving quality of life. The Company also has a framework for investment in social development that aligns with and is integrated into its business operations in 3 key areas: building a learning society, promoting a better quality of life, and supporting community engagement. The target areas for these efforts are divided into 2 groups based on the scope of the area, which are 1) Community/ social areas surrounding business operations, such as communities near renewable energy power plants or offices and factories. 2) General areas, such as organizations or communities not directly related to the Company, or the broader society, to create educational opportunities and strengthen their capacity to develop and grow alongside the Company sustainably in the long term.



Creating a learning society



Promoting a good quality of life



Supporting Activities and Fostering Community Engagement



Creating a Learning Society

The Company promotes the development of a learning society to prepare for future changes in key energy sources by focusing on supporting knowledge that aligns with its business expertise and shares it with all sectors, including educational institutions, government agencies, local authorities, and civil society organizations. This aims to enhance understanding and integrate the use of sustainable energy into the daily lives of people in society. The goal is to foster the development of renewable energy and sustainable energy systems, reduce reliance on fossil fuels, and increase access to renewable or clean energy sources. By doing so, the Company seeks to reduce greenhouse gas emissions and mitigate the impacts of climate change, contributing to a more sustainable energy future.



Promote Renewable Energy Power Plant Learning Centers

Provide opportunities for local agencies and educational institutions, both public and private, to visit power plants and gain knowledge about renewable energy, including the working principles of wind and solar power plants. This aims to build knowledge and understanding of renewable energy development, which can be applied in daily life. In 2024, there were 3 groups of visitors to the renewable energy power plant learning centers, totaling 93 people.





GUNKUL SPECTRUM Energy Classroom

With the belief that “energy is a basic human right that everyone should have access to,” the Company is committed to fostering participation in driving clean energy technology and sustainability in society through social media channels on the Facebook page GUNKUL SPECTRUM. This platform serves as a space to communicate and connect people’s access to clean energy. Driving the transition to a clean energy era is not solely the responsibility of the government, but every energy user has an important role in creating change and pushing the country toward sustainability. As the Company strives to be a leader in energy innovation, the content shared on GUNKUL SPECTRUM not only provides knowledge about clean energy technology but also focuses on creating positive societal change to collectively shape a sustainable future. The goal is to raise awareness about democratization of energy, helping society understand that everyone can participate in accessing and owning clean energy equally. It also emphasizes that all citizens play a critical role in driving the country towards sustainability. Additionally, the page provides knowledge about opportunities and the clean energy technology market. As the Company operates in the renewable energy sector with a focus on innovation, we have developed a brand as an energy innovation unit and communicate our operations to society through engaging content that attracts various stakeholders. This includes not only followers on GUNKUL SPECTRUM but also customers, partners, business allies, and students. We create a wide range of valuable and meaningful content.

Educational

- Provide valuable insights on Smart Energy, sustainable practices, and new technologies.
- Promote knowledge for informed decision-making

Executive Interviews

- Provide insights into the Company’s drive for innovation and sustainability through the perspective of the executive.

Technology Updates

- Provide information on clean energy technology.

Brand Movement

- Publicize information about the company.
- Showcase collaboration with business partners, successes and awards, and community involvement.

Sustainability Updates

- Provide information on sustainability
- Raise awareness of progress and the commitment to creating a sustainable future together.



Promoting a Good Quality of Life

Budget for promoting a good quality of life:

6.00 million baht



Educational institutions supported:

19 institutions



Communities and local agencies supported:

48 organizations

The Company consistently believes that business operations must go hand in hand with the development of the quality of life and well-being of people in the community in the long term. Therefore, the Company has a strategy for developing and enhancing a good quality of life for all sectors equitably, through supporting and promoting activities or projects that vary depending on the nature of the business or the context of the local community where the company operates. These efforts cover areas such as health promotion, education, and improving the quality of life and well-being.



Health Promotion

The Company continuously supports the budget for contributing to the purchase of essential medical equipment for hospitals and various medical agencies to enhance effective treatment for patients. Additionally, the Company fosters collaboration with business partners in social activities by providing opportunities for them to participate in various events such as charity events, fundraising, or supporting projects through multiple channels. This allows all parties to cooperate in promoting social responsibility and assisting those in need by building good relationships and engaging in socially valuable activities. In 2024, the Company participated in supporting the “HomePro Fun Walk 2024 Walk To Give...Give For Life” project with its business partner, Home Products Center Public Company Limited (HomePro). This initiative played a key role in creating sustainable “giving” to provide good health and access to quality treatment and disease prevention. The donations raised from this project were used to purchase medical equipment and medicines to help breast cancer patients through the Sirikit Queen Memorial Center at Chulalongkorn Hospital, Thai Red Cross Society.





Education

The Company provides scholarships to the Watsa waswareeseemaram Community Child Development Center, Watsawaswareeseemaram School, Watnoi-noppakhun School, as well as schools in communities surrounding the factories and power plants for the year 2024. This initiative supports the development of educational quality and provides educational opportunities for youth to pursue higher education. The focus is on promoting the rights of children and youth to access quality education, which is a crucial foundation for building a better future for young people in the community. Providing equal educational opportunities helps develop the potential of youth, enhancing their knowledge and skills for stable growth in society. Furthermore, the Company aims to create opportunities and strengthen the abilities of youth to prepare them for future development and growth, while also improving the quality of life in the community in a sustainable manner. The Company firmly believes that investing in education is a way to create a strong and sustainable future for both the youth and the community in the long term.



Quality of Life and Well-Being

The Company supports activities and projects that promote well-being of the community and society, including collaborations with various organizations to promote renewable energy. For example, the Company supports joint research with universities and agencies to advance electricity production from renewable energy for sustainability. Additionally, the Company supports various projects that benefit society, such as assisting children and youth in care facilities by extending care and support to those facing social issues. This includes donating funds, goods, and consumables to the Phayathai Children's Home and providing financial support to help underprivileged children with heart conditions receive better quality medical care.



Supporting Activities and Fostering Community Engagement

Budget for supporting activities and creating community engagement:

1.24 million baht



Educational institutions supported:

26 institutions



Communities and local agencies supported:

62 organizations

The Company places great importance on continuously supporting activities and creating engagement with local communities to create value and develop society in various aspects, as well as promote participation from all sectors in driving sustainable development toward common goals. Furthermore, the Company values utilizing the results of community satisfaction and engagement surveys to assess the needs and expectations of the community in order to improve and develop projects that truly meet the community's needs. This is done through surveys and gathering opinions from community members, such as those from the communities around the renewable energy power plants and the communities surrounding the Company's offices and factories, to ensure that the projects not only foster economic growth

but also align with sustainable development. They must also address needs in various areas such as education, health, skill development, and the promotion of social welfare in an appropriate and efficient manner. In 2024, the Company took care of and participated in various activities covering multiple dimensions to meet the community's needs according to the categories of activities, ensuring they align with the development of the community and create long-term sustainability. Below are examples of supported activities and community engagement initiatives:



Economic Development

- Utilize business expertise and skills to repair equipment, machinery, and electrical systems to improve production efficiency, enhance product manufacturing facilities, and provide basic electrical knowledge to members of the community enterprises and farmers in Bang Khanun sub-district to increase production efficiency for agricultural product processing in the community.



Public Health

- Support adult diapers and consumable items for bedridden patients and the elderly in the community.
- Support uniforms for village health volunteers (VHV) to promote health and sanitation work within the community.
- Support the budget for building patient rest areas, extension building projects, and constructing waiting rooms for treatment at community health centers.



Education and Sports

- Support the budget for installing facilities, sports equipment, and educational technology tools for schools in the community.
- Support the organization of activities and provide scholarships for National Children's Day to schools and communities.
- Support the budget for building playgrounds and play equipment for schools in the community to promote skill development.
- Support food and beverages for sports competitions in the community.
- Support the budget for organizing sports competitions under the anti-drug sports program to encourage the local community to make productive use of their free time.



Traditions and Culture

- Support activities for the Elderly Day in the community to care for and promote the value of the elderly.
- Support activities to preserve the Songkran festival traditions and water-pouring ceremonies for the elderly in the community.
- Support activities to preserve the local tradition of Loy Krathong.
- Support activities to conserve Thai culture in the community on "Local Thai Day."
- Support activities for the annual merit-making activities (Kathin and Phra Bat) for education and temple restoration in the community





Society and Public Welfare

- Support charitable activities of the Red Cross.
- Support activities for setting up checkpoints during the “7 Dangerous Days” of the Songkran festival to facilitate, prevent, and reduce accidents for people traveling home.
- Support training programs and study visits for local agencies to enhance work performance, improve organizational management, and apply learning to the community.
- Support the budget for building homes for the underprivileged in the community.



Environment

- Support the landscaping of reservoirs to increase green spaces in the community.
- Support tree planting activities in the community for Father’s Day and World Soil Day.



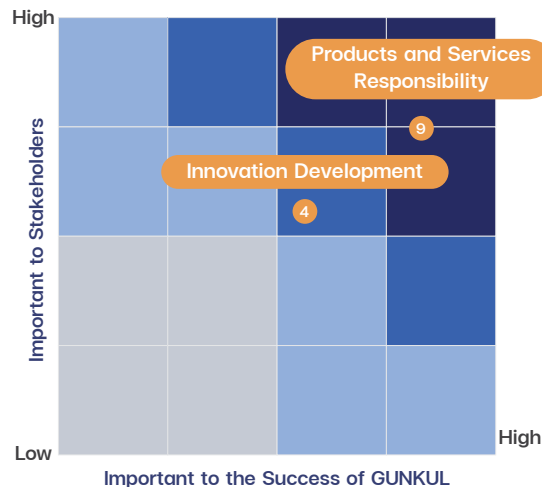
Community and Social Responsibility Performance

The Company fosters collaboration and trust between itself and the community as a “good neighbor” to ensure sustainable business growth and enhance the quality of life for the people in the community. In 2024, the Company allocated a total budget of 7.24 million baht to support the community, promoting harmonious coexistence and providing continuous assistance in various areas. As a result, community satisfaction and engagement surveys reflect a positive relationship between the Company and the community, with satisfaction and engagement scores exceeding the target set. The average satisfaction score was 84.31%, an increase of 0.65% from 2023. The results of the Company’s investment in supporting the community and society indicate that there were no significant complaints related to community and social issues, demonstrating the Company’s success in responsible business operations, including improving quality of life, fostering good relationships, and promoting mutual growth for sustainability.

Community and Social Responsibility Performance	2022	2023	2024
Community and social support budget (Million Baht)	5.64	3.75	7.24
Overall community satisfaction and engagement (%)	74.94	83.66	84.31
Significant complaints related to community (cases)	None	None	None

Business Innovation for Social Creation

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



- 7.1 Ensure access to reliable modern energy services at affordable prices.
- 7.2 Increase the share of renewable energy in the global energy mix
- 7.3 Improve the global energy efficiency rate



- 9.4 Enhance infrastructure and upgrade industries for sustainability, improving resource efficiency and environmentally friendly technologies.
- 9.5 Promote scientific research and technological capabilities in the industrial sector.

Challenge and Opportunity

Amidst the rapid changes in global directions and megatrends, whether it is the impact of climate change or digital revolutions, which are having increasingly severe effects, the Company therefore must prepare to expand its businesses and develop products that meet the needs of modern consumers. This involves focusing on the study, development, and creation of digital energy products that can address the basic needs of society, such as the ability to choose energy sources independently and access stable energy at an affordable price since energy is a fundamental right that every human being should have. The Company also promote and support innovation during the transition from traditional energy sources to the use of new energy forms, in order to provide a better quality of life for people in society.

Business Innovation for Social Creation Approach



Over 4 years of establishing GUNKUL Spectrum, the energy innovation unit, alongside the challenges of a dynamic industry, the preparation for creation of products and services with new innovations and technologies that address future customer energy usage behaviors sustainably has been a key focus in our operations. By promoting creativity, providing employees with opportunities to offer new ideas, and fostering the ability to listen, we aim to continuously improve our processes for greater efficiency. Support for training, seminars, research collaborations, and business trend tracking to use knowledge for ongoing development. The emphasis is on building partnerships with stakeholders and customers to develop innovations that may not need to be groundbreaking but must be continuously improved to solve product, service, and operational challenges. This is vital to ensure the business grows sustainably. The Company is committed to bringing clean energy to households, reducing disparities, and ensuring everyone has access to sustainable energy in their daily lives. The Company also follows a path of developing technologies and innovations to support the availability of modern, sustainable, stable, and affordable energy for consumers, covering operations that link in 3 dimensions.

✓ **Business** Enhance business capabilities by collaborating with business partners to create new energy business models that enable users to access services more efficiently and quickly, under the principles of ESG (Environmental, Social, and Governance).

✓ **People** Develop people by enhancing skills and fulfilling potential in all aspects to build a team that is prepared to adapt and seize opportunities. Develop new methods to improve quality, solve problems, and turn every possibility into reality.

✓ **Technology** Embrace trends and innovations in new energy and apply technology to manage the electrical grid, transitioning fully to a Digital Grid on an easy-to-use Digital Platform. This enhances work efficiency and breaks traditional boundaries with advanced technology.

Virtual Power Plant (VPP) Platform

Due to the fact that the Company has a large group of customers with the potential to generate electricity from clean energy and has some surplus electricity produced beyond their demand, at the same time, there is an increasing demand for affordable clean energy among customers. This also aligns with the policy of promoting renewable energy usage and the goal of reducing greenhouse gas emissions in Thailand's energy sector. Therefore, the Company has applied to participate in the ERC Sandbox Phase 2 project to demonstrate its commitment to driving Thailand's energy industry transition towards

sustainable clean energy use. The Company aims to integrate digital technology to showcase its leadership in transforming the energy production industry to be compatible with the digital era, while currently studying and developing a platform that integrates a business model for long-term management optimization.

The platform will serve the function of aggregating electricity users with the potential to generate electricity (Prosumers) and regular electricity consumers (Consumers) into the platform. The platform administrator (Aggregator) will collect and purchase electricity from Prosumers, manage it within the platform, and then sell it to Consumers who require affordable electricity and/or wish to use electricity generated from clean energy. Additionally, the platform will act as a supervisor for the connection points between Prosumers and the grid system, ensuring that it does not affect the stability of the grid system. Furthermore, the Aggregator will summarize the electricity units traded through the platform and report to the grid operator, paying the wheeling charge to compensate for opportunity costs and expenses incurred by the grid system operator.

Once the platform development process is complete, the Company will gather Prosumers and Consumers and discuss with the grid system operator to test the actual usage of the platform, including its ability to track electricity transactions, data processing within the system, grid stability, issues that arise during the project, and the benefits each stakeholder

will receive from the operations. The expected benefits after the project is completed include having a prototype platform for managing electricity consumers and those capable of generating electricity from clean energy, stakeholders gain knowledge and experience in the project's operational processes, which can be shared with the public for the common good. Additionally, lessons learned can be used to propose policy and regulatory recommendations and serve as a foundation for expanding the project into a fully-fledged virtual power plant and smart grid. This will also support free competition in the energy business, promoting and driving the country to achieve its goal of increasing the share of renewable energy in the energy system. Furthermore, it supports the achievement of the country's Carbon Neutrality and Net Zero Emissions targets.

The Project for the Study and Development of a Prototype for Managing Distributed Energy Resources (DERs) on the Electricity Distribution System of the Provincial Electricity Authority (PEA) with Virtual Power Plant: VPP

Due to the Alternative Energy Development Plan (AEDP 2018) has set new goals for the installed capacity of power plants using renewable and alternative energy, increasing the proportion of production from the previous plan (AEDP 2015) of 20.11% in 2036 to 34.23% in 2037. Additionally, the Ministry of Energy is currently revising the country's energy development plans by consolidating all existing plans into the National Energy Plan (NEP). This new target will promote electricity

generation from renewable energy to more than 50%, leading to the expansion of Very Small Power Producers (VSPP), which are non-firm power plants under the substation of the Provincial Electricity Authority (PEA) and are plants that cannot be controlled or commanded by the electricity system control center. Moreover, there are Independent Power Suppliers (IPS) producing electricity for self-use, which is a form of power generation outside the country's promotion plan due to the price-driven push of technology that is able to compete with electricity grid prices (Grid Parity). The government also has policies to promote the use of electric vehicles (EVs) to reduce greenhouse gas emissions. For these reasons, there may be impacts on the stability of the electricity distribution system at substations, particularly when there is significant usage. For instance, reverse power flow from substations to the national transmission system may occur, leading to power losses and overvoltage problems, which directly affect power quality. There are also issues related to peak demand during short periods in the early evening when many electric vehicles (EVs) are used simultaneously.

To prepare for and address these challenges, it is essential to study the management and operation of Distributed Energy Resources (DERs) systems that are installed and in use in the electricity distribution areas of the Provincial Electricity Authority (PEA). This involves applying the concept of managing decentralized energy sources on a Virtual Power Plant (VPP) platform to manage the electrical system for

increased flexibility (Grid Flexibility) and enhanced stability in future electricity system management. The Company therefore participates as part of the development project to study and develop a prototype for managing Distributed Energy Resources (DERs). The project is owned by the College of Renewable Energy and Smart Grid Technology at Naresuan University, with the Company acting as the System Integrator for this project. The objectives and anticipated benefits from the project development are as follows:

1. To define the management approach for Distributed Energy Resources (DERs) using Virtual Power Plant (VPP) technology in the target areas of the Provincial Electricity Authority (PEA).
2. To define the appropriate communication system (Protocol/Communication) linkage between VPP technology and DERs for future business expansion.
3. To test the control and command system of VPP within the PEA's electricity distribution system.
4. To create a business model and recommendations that provide benefits from applying the management concept of DERs under the Aggregator Model in PEA's operations, along with suggestions for improving related regulations and standards.
5. To develop a roadmap for expanding future business operations for DER customers with potential.

Quality Control Circle (QCC) Implementation Activities

Apart from the development of business innovations, the Company also places importance on the development of work innovations to improve and enhance the quality of work and production processes, aiming to improve social development and address environmental issues. In 2024, the Company organized a Quality Control Circle (QCC) activity to promote participatory work in improving and developing various aspects of work quality within the high-voltage electrical equipment manufacturing plant. This year, there are 40 projects in total, divided into 12 projects focused on reducing operational steps, 18 projects aimed at reducing work time, and 10 projects aimed at improving work efficiency. The cost and expenses in the production process can be reduced by 783,093 baht. These activities aim to create a mechanism for employee participation, while enhancing their potential and understanding of quality management systems. Additionally, they promote teamwork and internal coordination, which helps employees apply the knowledge to solve problems or improve work efficiency. Furthermore, the activities help the Company reduce steps, shorten time, improve operational and production processes, and reduce waste generated during production. This leads to a reduction in environmental impact, promotes a better quality of life for society, and helps lower production costs. As a result, the Company can develop high-quality products and services, ensuring sustainable customer satisfaction.

For a Sustainable Environment

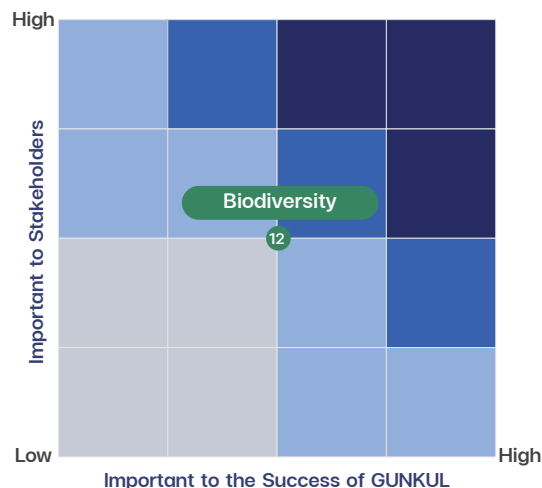
Driving the transition to a low-carbon economy and addressing environmental issues sustainably with “Clean energy” to create balance for the world

Environmental Responsibility	98
Climate Actions	103
Energy Management	110
Water Management	113
Efficient Resource Use and Pollution Management	120



Environmental Responsibility

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



- 15.2 Promote the sustainable management of all types of forests, halt deforestation, restore degraded forests, and increase global forest planting and restoration efforts.

Key Performance Results



Proportion of companies covered by the Environmental Management System standard (ISO 14001:2015) to the total number of operating companies

Target
(-)

Performance in 2024

53.57



Total costs from environmental fines

Target
(None)

None

Performance in 2024



Challenge and Opportunity

The problems caused by environmental destruction and the emission of greenhouse gases today result in damage to ecosystems and the existence of living beings. This leads to a reduction in important natural resources, resulting in the loss of biodiversity, which impacts human quality of life and the long-term sustainability of businesses. Especially businesses involved in engineering and construction activities that undertake projects in areas potentially affecting nature or areas with biological sensitivities, such as deforestation or causing pollution in water bodies and soils. Business activities that utilize resources and release waste, including pollutants from production processes, may harm ecosystems in a way that cannot recover in the short term. Furthermore, the loss of biodiversity and environmental impacts reduce the ability to cope with natural disasters and climate change. Therefore,

sustainable business operations must take into account the conservation of natural resources and biodiversity, with responsibility at every step of the operation, to ensure that the future of the world and businesses progress together sustainably.

Environmental Responsibility Approach











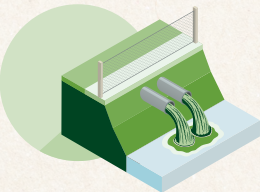




The Company recognizes the importance of conducting business with environmental responsibility. Therefore, it has developed and announced the Environment and Climate Change Management Policy, which is reviewed annually to ensure that the policy is comprehensive and serves as a guideline for good business practices. This applies to all levels of management and employees, alongside efforts to preserve the environment and ecosystems.

[Read more about Environmental and Climate Change Management Policy](#)

Moreover, the Company also implemented the management of environmental compliance (ISO 14001:2015) at every step of its operations, covering the manufacturing plant of high-voltage electrical equipment, wind power plants, and solar power plants. Additionally, the Company promotes engineering and turnkey business activities to ensure that construction projects are conducted in accordance with environmental standards, regulations, and relevant laws.

The Company is committed to establishing effective preventive and corrective measures for environmental impacts to reduce effects and create sustainability in all operations as follows:

Environmental issue	Preventive and Corrective Measures to Reduce the Impact	
Air Quality 		<ul style="list-style-type: none"> • Use environmentally friendly raw materials or chemicals to avoid releasing harmful pollutants. • Promote the use of efficient technologies and machinery in the production process to reduce dust and pollutants released from production processes. • Encourage the use of environmentally friendly vehicles, such as electric forklifts, in the production process. • Provide training for employees on pollution control and compliance with environmental standards to ensure they are aware and can correctly follow the required measures. • Regularly monitor air quality to maintain workplace air quality in accordance with the standards of the Department of Industrial Works or other relevant standards, and transparently report the air quality inspection results to the appropriate authorities.
	 	<ul style="list-style-type: none"> • Promote tree planting and the creation of green spaces within the project to help absorb air pollution and improve air quality. • Inspect and maintain equipment, machinery, and vehicles within the project to ensure they are in good condition, avoiding the release of pollutants above the standard due to worn-out engines.
		<ul style="list-style-type: none"> • Train contractors and employees on reducing the impact on air quality, such as using machinery correctly and controlling dust emissions during construction. • Control dust by using water spraying systems or humidity systems in construction areas to reduce the spread of dust in the air, such as spraying water on dust-prone surfaces or laying asphalt in areas undergoing excavation or construction.
Noise Level 		<ul style="list-style-type: none"> • Design and allocate production areas appropriately by placing noisy machinery away from employee work areas or nearby communities. • Install sound barriers or acoustic insulation in areas where loud equipment is used, such as areas for cutting, grinding, or welding materials, to prevent noise from affecting surrounding areas. • Choose machinery that reduces vibration and operates quietly. • Inspect and maintain machinery to ensure efficient operation and reduce noise caused by friction or wear of components. • Train employees on noise management within the factory, such as using hearing protection tools, adhering to noise control measures, and providing information on the effects of loud noise, such as hearing loss or long-term health impacts, to encourage employees to prioritize noise reduction in the workplace. • Monitor and regularly check noise levels in the workplace to assess and evaluate noise levels, such as measuring noise levels in areas where machinery is used or where production occurs. • Require workers to wear noise protection equipment, such as earplugs, while working and ensure rotation of workers in high-noise areas in accordance with legal regulations.
		<ul style="list-style-type: none"> • Regularly inspect and maintain tools and equipment to reduce noise caused by malfunctioning machinery or equipment that is not operating at full efficiency. • Avoid using machinery for maintenance work that generates high noise levels simultaneously.

Environmental issue	Preventive and Corrective Measures to Reduce the Impact	
		<ul style="list-style-type: none"> Regularly inspect and maintain tools and equipment to reduce noise caused by malfunctioning machinery or equipment that is not operating at full efficiency. Create a Noise Contour Map after the project starts operations, using the study results to manage environmental noise. Regularly measure noise levels at the wind turbine location to ensure the generated noise does not exceed legal limits or thresholds that are harmful to health.
Greenhouse Gas Management 	    	<ul style="list-style-type: none"> Continuously assess and report greenhouse gas emissions, and have them verified by internationally recognized certification bodies. Implement the energy saving strategy to promote energy conservation, to encourage the use of clean energy and renewable energy. Use low-emission transportation to promote the use of electric vehicles (EVs) and environmentally friendly transportation, and implement sustainable practices to promote the efficient use of resources. Choose environmentally friendly raw materials/ products/ services and develop a sustainable supply chain by collaborating with stakeholders to improve and develop environmentally friendly products and services. Provide training to employees to raise awareness and understanding of greenhouse gas emissions. Organize activities to encourage employee participation in adapting and changing behaviors to reduce the impact of greenhouse gases.
Water Use 	 	<ul style="list-style-type: none"> Promote awareness about water conservation among employees and encourage their participation in efficient water use. Implement water-saving technologies and equipment within the office. Improve and control wastewater quality by using effective wastewater treatment systems to comply with legal requirements and regulations. Reuse treated water for purposes such as watering plants or cleaning areas. Regularly check the quality of wastewater before discharging it into public water sources, at least once a year.
Drainage 	   	<ul style="list-style-type: none"> Design a drainage system that efficiently handles rainwater, such as drainage pipes or drainage ditches that connect to local water sources, to prevent waterlogging and reduce erosion. Create water channels or pathways to direct rainwater to retention ponds or other drainage systems without causing high-velocity runoff. Promote the expansion of green spaces in the power plant, such as planting trees and ground-cover plants (e.g., grasses or plants that help stabilize the soil and reduce erosion from rainwater). Control excavation and soil filling during construction to prevent changes in water flow within the area. Assess the impacts of water drainage on surrounding areas or natural water sources, especially when water is discharged from the power plant. Implement sedimentation ponds before discharging water outside the project area.

Environmental issue	Preventive and Corrective Measures to Reduce the Impact	
Energy Use 	   	<ul style="list-style-type: none"> Promote the use of renewable energy in high-voltage electrical equipment manufacturing plants, power plants, and construction projects. Improve energy efficiency in the production process by using machinery designed for energy efficiency, such as low-energy-consuming machines or machines with energy recovery systems, which help reduce overall energy consumption. Select tools or electrical equipment that are certified for energy efficiency by reputable organizations. Foster an energy-saving culture within the organization by raising employee awareness of the importance of efficient energy use and organizing activities to encourage employee participation in energy conservation.
Non-Hazardous Waste from Production Process 	   	<ul style="list-style-type: none"> Raise awareness about waste segregation and promote waste reduction by using media campaigns and organizing activities to encourage employee participation. Provide 4 types of waste containers: general waste, recyclable waste, hazardous waste, and organic waste, stored in containers clearly labeled with the type of waste and equipped with tight-fitting lids. Collect and send waste for treatment/ disposal in the proper manner. Collect recyclable waste and send it for recycling to be reused.
Hazardous Waste from Production Process 	  	<ul style="list-style-type: none"> Prepare a waste list to classify and identify types of waste, as well as determine the appropriate disposal/ treatment methods. Set up a secure and safe storage area for electrical equipment, damaged solar panels, and other types of waste from the production process, and send them to a certified waste disposal company for proper disposal in accordance with legal requirements. Provide training on the proper methods of waste storage, collection, and disposal from the production process.
Biodiversity 	  	<ul style="list-style-type: none"> Conduct Environmental and Social Impact Assessment (ESIA) to assess the risks and impacts of the project that may affect the integrity of the environment, ecosystem health, and other changes that may occur in nature, through the study of the biodiversity of the renewable energy power plant project to collect data and evaluate the impacts on biodiversity. This includes both the construction and operational activities of the power plant. Take action to avoid and reduce negative impacts on biodiversity by taking responsibility for all areas that are sensitive to biodiversity. Promote the expansion of green spaces and forest planting to conserve natural resources and maintain ecological balance.

Biodiversity

The Company has established the Environment and Climate Change Management Policy that includes the protection of ecosystems and biodiversity to ensure compliance with relevant legal requirements. The policy also promotes awareness among employees at all levels regarding the importance of protecting and avoiding impacts on biodiversity in all business processes. The Company assesses the risks and potential impacts from new projects, particularly in areas with natural value or protected areas, and will avoid activities that may negatively affect these regions. Additionally, the Company is committed to integrating the policy with business expansion strategies to support the conservation and restoration of natural resources, as well as collaborating with various sectors to create positive impacts on nature and the environment. This is an essential part of the Company's operations to achieve sustainable development goals.

Biodiversity Risk Management

The Company assesses environmental impacts, covering biodiversity issues, by preparing environmental impact assessment reports in compliance with the relevant regulations and laws of the regulatory authorities, based on the type of power plant. This includes activities for both ongoing projects and new projects. These reports include the preparation of a Code of Practice (CoP) report as per the Energy Regulatory Commission of Thailand (ERC) announcement, an Environmental Safety Assessment (ESA) report according to the Ministry of Industry's announcement, and an Environmental

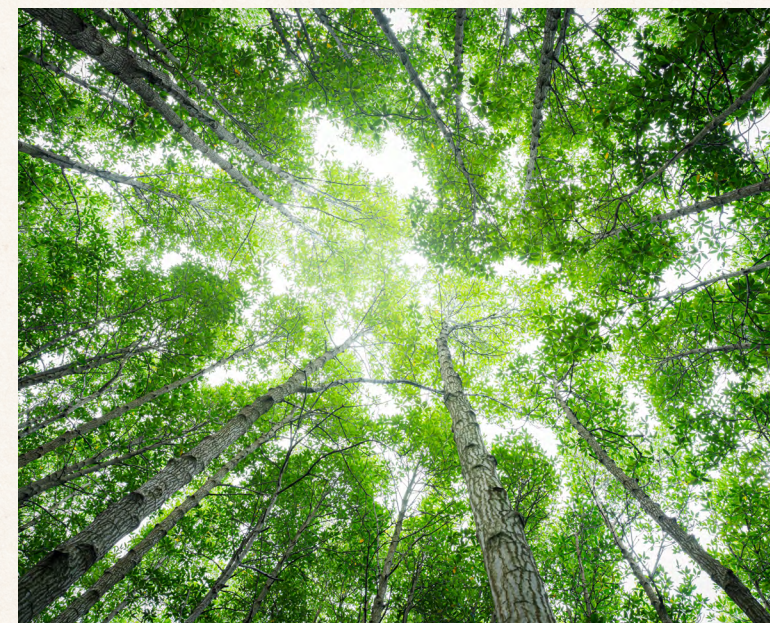
and Social Impact Assessment (ESIA) report. These assessments ensure compliance with the relevant requirements and guidelines for renewable energy power plant projects.

In 2024, the Company developed a plan and began assessing the environmental and social impacts of the solar farm project in Narathiwat Province, Thailand, with a total installed capacity of 46.60 MW. The project is scheduled to commence commercial operations in December 2026. The environmental impact assessment will cover issues related to ecosystems and biodiversity using the Integrated Biodiversity Assessment Tool (IBAT), conducted by external experts. The scope of the biodiversity risk assessment in the report will adhere to the criteria for areas of importance as specified in IFC Guidance Note 6. This includes areas significant for critically endangered or near-threatened species, areas important for species with restricted ranges or endemic species, areas supporting migratory species or large congregations of animals, and areas related to important evolutionary processes. Furthermore, the environmental impact assessment report will outline preventive and corrective measures, along with monitoring and reporting actions to preserve, protect, and avoid any negative impacts on the environment, ecosystems, and biodiversity.

Participation in Reducing Biodiversity Impacts

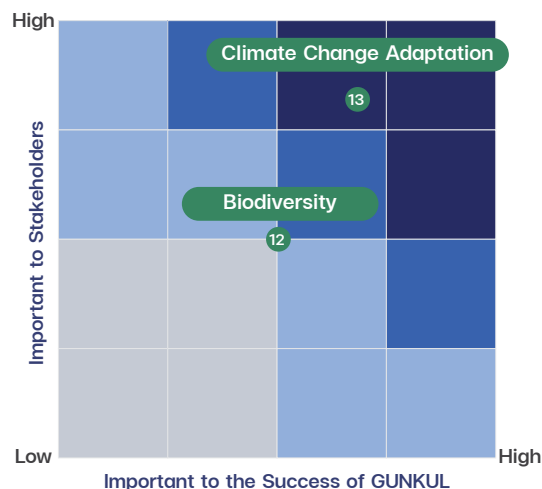
In addition to adhering to the preventive and corrective measures for environmental impacts outlined in the Environmental Impact Assessment report, the Company places the highest priority on preserving ecosystems and biodiversity

in the surrounding communities of renewable energy power plant projects. In past operations, the Company has built collaborations with stakeholders, communities, and local authorities living around the wind power plant by supporting community activities to restore and maintain ecological balance. These activities include the reforestation project at Huay Bong Village, landscape improvement at the reservoir in Noi Phatthana Village, and landscape improvement around the pond at Sapsomboon Village. The goal of these projects is to increase green areas, restore ecologically significant areas, and enhance the sustainability of biodiversity in the surrounding areas, ensuring that the local ecosystems can recover and persist in the long term.



Climate Actions

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



6.4 Enhance water efficiency across all sectors and ensure the sustainable use and supply of water to address water scarcity issues.



7.2 Increase the proportion of renewable energy in the global energy mix.



12.2 Aim to achieve sustainable management and efficient use of natural resources.



13.2 Integrate climate change measures into policies, strategies, and planning.
13.3 Develop education, awareness, and the capacity of individuals and institutions in addressing the impacts and adapting to climate change.



15.2 Promote the sustainable management of all types of forests, halt deforestation, restore degraded forests, and increase global forest planting and restoration efforts.



Challenge and Opportunity

At present, the issue of climate change is a severe threat with widespread impacts on society. As a result, renewable energy has become a crucial solution to address this challenge and drive the goals of carbon neutrality and net zero Emissions at various levels - organizational, business, national, and international cooperation under the United Nations Framework Convention on Climate Change and the Paris Agreement. The climate change crisis affects society in multiple dimensions, including the economy and the livelihoods of all life on Earth, and it is unavoidable. Therefore, preparing for and mitigating its impacts is not only the responsibility of national leaders and businesses, but it is a shared responsibility of everyone. Each individual must change their daily behavior to collectively prevent and address this issue.

Climate Change Risks Management

The Company has established a process to assess the risks and opportunities related to climate change that may affect the operations of all business units. This includes assessing both physical risks and transition risks according to potential scenarios, in order to prioritize the most significant climate-related risks and opportunities. An action plan is developed to address and mitigate the potential impacts on the business. This plan is integrated into the organization's overall risk management system and outlines guidelines for managing both the positive and negative impacts of climate change. The key actions for responding to and dealing with climate change-related situations are as follows:

Risk issues	Impact	Approach for implementation
Transition Risk		
Disclosure of climate change information of organizations according to relevant laws and international standards	(-) Increased operational costs due to adjustments required for disclosing more information.	Management to support climate change mitigation impacts Management to reduce greenhouse gas emissions within the organization
Carbon tax in the Country and greenhouse gas emission trading system (ETS)	(-) Increased operational costs due to the need to track and comply with related laws or regulations. (+) Opportunity to allocate carbon assets generated from electricity production using renewable energy to organizations seeking to offset Scope 2 greenhouse gas emissions.	
Industry adjustment and increased demand for renewable energy to reduce greenhouse gas emissions	(+) Opportunity to expand the customer base and access more funding for developing renewable energy power plant projects. (-) Increased market competition; failure to adapt to technological changes and consumer demand may result in losing market share.	
Consumer behavior in using products and services with environmental friendliness consideration	(-) Increased operational costs due to investment in technology and innovation to develop environmentally friendly products and services.	
Physical Risk		
Risk from natural disasters, such as unpredictable weather, storms, floods, and droughts	(-) Impact on assets and business continuity, as well as efficiency in producing electricity from wind and solar energy.	

Management to Support Mitigation of Climate Change Impacts

As a company operating in the renewable energy sector, and recognizing the importance of its role in creating opportunities and seriously addressing global warming, the Company is committed to developing technologies and environmentally friendly clean energy innovations. The Company aims to promote clean energy as the main driving force toward a low-carbon society, under the strategy of “Create, Contribute, and Share” as follows:



“Create”

Continuously create and develop renewable energy technologies and innovations to improve efficiency and reduce the cost of renewable energy, making it more accessible and a better choice for all sectors.



“Contribute”

Contribute to easing Thailand’s efforts in achieving climate change goals by supporting and promoting the use of renewable energy at all levels, covering the business sector to households.



“Share”

Share carbon assets generated from the Company’s projects with organizations or businesses seeking to offset their greenhouse gas emissions. Share knowledge and experience in renewable energy with society.

Management according to the Strategy of “Create”, “Contribute”, and “Share” that aligns with the Country’s Goal

“Create” the Company plays a crucial role at the national level in the renewable energy business, developing technologies and innovations that significantly and sustainably reduce greenhouse gas emissions. The Company is involved in important projects and activities, as follows:

- ✓ Collaborate in the development of wind and solar energy projects, paired with battery energy storage systems, under the Feed-in Tariff (FiT) scheme for 2022 - 2030, aimed at the group with no fuel costs. This is part of Thailand’s Power Development Plan (PDP).

- ✓ Expand the solar rooftop business, which is a form of decentralized power generation (Distributed Generation: DG) under the Ministry of Energy's 4D1E policy framework.
- ✓ Develop new energy businesses and innovations, such as Virtual Power Plants (VPP), to support electricity trading through the electrical grid under the government's Third Party Access (TPA) policy.

“Contribute” the Company operates a comprehensive renewable energy business to share investment and strengthen the renewable energy sector. This includes key businesses such as:

- ✓ Engage in the production and distribution of solar energy through Private PPA (Power Purchase Agreements), installing Solar Rooftop systems with equipment and maintenance services for large electricity-consuming organizations and industrial factories. This allows consumers to use electricity at lower prices, reducing greenhouse gas emissions.
- ✓ Expand the Private PPA business model to reach new customers, such as residential developments or condominiums, providing them with access to cheaper and cleaner electricity.
- ✓ Operate the installation and service of electric vehicle (EV) charging stations for condominium projects. The Company invests jointly with project owners to reduce the cost burden for the installation of EV charging stations, making it more affordable for condominium residents to access clean energy and driving the reduction of household greenhouse gas emissions sustainably.

“Share”

Total amount of Renewable Energy Certificates (RECs) produced was
581,026.74 RECs



Wind energy projects
391,653.44 RECs



Solar energy projects
189,373.30 RECs

- ✓ Expand the quantity of value of climate-related assets (Climate Asset) such as Renewable Energy Certificate (REC) of the Company, contributing to environmental sustainability efforts and reducing greenhouse gas emissions.
- ✓ Offer carbon management services to the Company's client groups, assisting them in achieving their climate change goals and improving their environmental impact. This includes advising on strategies and solutions for reducing carbon footprints.
- ✓ Share knowledge, expertise, and experience in renewable energy with society to raise awareness and foster a correct understanding of the importance of clean energy. Encourage community participation in energy conservation and environmental protection for long-term sustainability.

Management to reduce greenhouse gas emissions within the organization

Key Performance Results



Greenhouse gas emissions from Scope 1 and Scope 2 has decreased compared to the baseline year 2023

Target
(Decreased by 6.00%)

Performance in 2024

Decreased by 30.39%



To demonstrate responsibility for climate change, the Company has determined an operational framework and measures to reduce greenhouse gas emissions. The focus is on reducing the impact of internal activities to drive the transition toward a low-carbon society and enhance long-term sustainability for both the organization and society. By 2024, the Company has outlined strategies to elevate management practices in response to climate change and reduce greenhouse gas emissions within the organization as follows:



Policy Development and Committee Formation



Greenhouse gas emissions assessment



Goals and strategies establishment



Measures and plans establishment



Plans execution



Monitoring and Reporting Performance

Policy Development and Committee Formation

- Review the environmental management and climate change policies, and implement them as guidelines and best practices for internal operations within the Company.
- Review the structure of the Corporate Sustainability Development Committee, the Environmental sub-committee, and the Greenhouse Gas Emissions Assessment and Verification Committee. This committee is composed of senior executives who represent the Board of Directors and the Executive Committee, as well as executive representatives from all relevant departments. Their role is to oversee the development of environmental plans that address climate change and achieve goals related to reducing greenhouse gas emissions and the organization's sustainable development objectives.

Greenhouse Gas Emissions Assessment

- Categorize activities that emit greenhouse gases by source and scope.
- Assess the organization's greenhouse gas emissions covering the headquarters, Energy Business, Engineering and Turnkey Business, and High-voltage Electrical Equipment Business.
- Prepare the greenhouse gas inventory according to ISO 14064-1:2018 standards.
- Conduct verification for accuracy by an external agency and request certification for the organization's greenhouse gas emissions, continuing for the 4th consecutive year.

Goals and Strategies Establishment

- Consider setting short-term goals and studying approaches to set long-term targets for achieving net-zero greenhouse gas emissions. This is to ensure sustainable, tangible operations for reducing greenhouse gas emissions within the organization. The Company has joined the "Achieve Climate Action Set a Challenging Target to Net Zero" program of the Stock Exchange of Thailand to receive guidance on setting targets that align with Science Based Targets initiatives (SBTi). As a result of participating in this program, the Company has raised its greenhouse gas emissions reduction target for 2024 (short-term) to align with SBTi. The goal is to reduce Scope 1 and Scope 2 emissions by 6% annually (to reduce cumulative greenhouse gas emissions by 42% by 2030, compared to the base year 2023), contributing to the global effort to limit temperature rise to below 1.5°C.

- Establish a strategy for managing and achieving greenhouse gas reduction targets of the organization, aligning it with environmental management and climate change efforts, as well as the greenhouse gas reduction plan of Thailand and the United Nations' Net Zero Emission target. The strategy for reducing greenhouse gas emissions is as follows:

Strategies		Execution plans
Energy Saving	Medium-term 2024-2026	<ul style="list-style-type: none"> Raise awareness about energy conservation within the organization through activities and campaigns. Improve efficiency to reduce electricity consumption within the organization through the use of LED lights and smart technologies. Enhance fuel efficiency in vehicles through eco-driving practices, fleet management, and regular maintenance. Improve energy management systems for transportation and product delivery through effective logistics and transport management.
Renewable Energy	Short-term 2024-2026	<ul style="list-style-type: none"> Install and optimize solar power generation systems on rooftops or other areas within the organization (Smart PV & Field Light) to increase the use of renewable energy.
Low-Emission Transportation	Medium-term 2024-2028	<ul style="list-style-type: none"> Transition to electric vehicles (EVs). Develop policies or programs to support environmentally friendly travel expenses.
Sustainable Practices	Medium-term 2024-2028	<ul style="list-style-type: none"> Promote the efficient use of resources within the organization through practices such as Reduce, Reuse, and Recycle. Consider selecting environmentally friendly raw materials, products, and services (Eco-Friendly).
Sustainable Supply Chain	Long-term 2024-2030	<ul style="list-style-type: none"> Foster collaboration with partners, customers, and relevant stakeholders to improve and develop eco-friendly products and services.

Measures and Plans Establishment

- Evaluate the potential and develops activity or project plans in collaboration with relevant agencies to mitigate the impacts of climate change. These plans cover all significant activities, from upstream to downstream activities.

- Establish plans to raise awareness among executives, employees at all levels, and relevant stakeholders. This includes providing knowledge and understanding of the importance of climate issues and creating participation in adaptation efforts to address and mitigate the impacts of climate change.

Plans Execution

- Execute according to the guidelines and management plans, ensuring that the activities are aligned with the goals and objectives set.

Monitoring and Reporting Performance

- Monitor and check the effectiveness of plans by assessing the reduction of greenhouse gas emissions in each activity. Evaluate the overall greenhouse gas emissions reduction of the organization to compare performance against the set targets. The results are summarized and reported to stakeholders on a regular basis.

Operations to Reduce Greenhouse Gas Emissions

Assess the greenhouse gas emissions from business processes, covering the headquarters and 3 business groups: the Energy Business, the Engineering and Turnkey Business, and the High-voltage Electrical Equipment Business. This assessment allows the Company to define strategies for improvement, enhancing efficiency, and ensuring sustainable operations. The focus is on reducing greenhouse gas emissions within the organization through various activities as follows:



Use of Clean Energy within the Organization

Promoting energy efficiency and using electricity from renewable energy

- Energy Management**

As a result of activities aimed at promoting and creating employee involvement in energy conservation, and the installation of a solar power system to supply electricity for internal processes, the organization reduced its total electricity consumption by 249,457.52 kWh. This led to a reduction in greenhouse gas emissions by 124.70 tCO₂e, which corresponds to a 6.66% reduction in Scope 2 emissions compared to the base year 2023.

- Project “Replacing Diesel Forklifts with Electric Forklifts”**

The Company launched an initiative to support the use of renewable energy in the manufacturing process of high-voltage electrical equipment by replacing diesel forklifts with electric forklifts. These electric forklifts are powered by solar-generated electricity when the manufacturing process is not receiving power. This change resulted in a reduction of fuel consumption by 4,018.00 liters per forklift per year and a reduction in greenhouse gas emissions by 12.10 tCO₂e per forklift per year. The project will be expanded to cover all areas.



Efficient Resource Use

In addition to efforts to achieve greenhouse gas emission reductions in Scope 1 and Scope 2, the Company emphasizes driving business operations in line with a circular economy to reduce emissions in Scope 3. Therefore, it supports the optimal use of internal resources by increasing the proportion of recycled raw materials used and applying advanced technologies and innovations to control and prevent pollution that may occur during production, along with waste management based on the 3Rs principle.

- Pollution Management**

The Company has been using recycled plastic pellets as a substitute for new plastic pellets in the manufacturing process of high-voltage electrical equipment. In 2024, the use of recycled plastic pellets accounted for 92.64% of total plastic pellet usage, or 8.22% of total raw material usage in the manufacturing process. This resulted in a reduction of greenhouse gas emissions by 1,425.42 tCO₂e, which represents an 87.65% reduction in emissions compared to the use of new plastic pellets.

- Water Management**

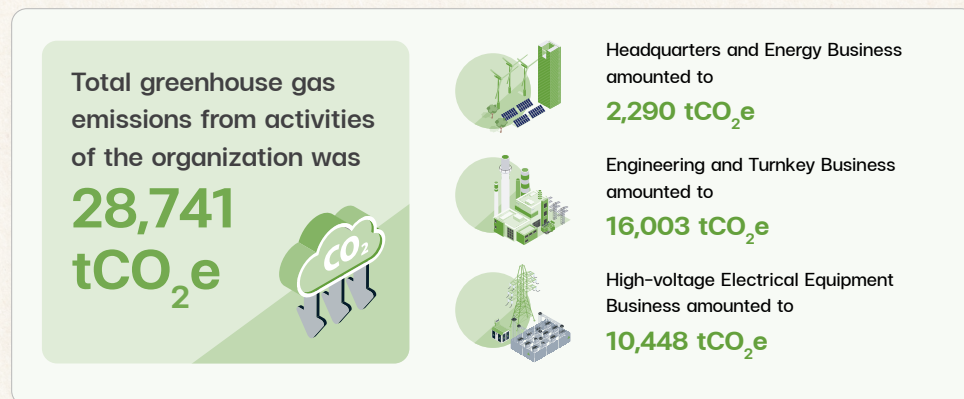
Based on measures to reduce water scarcity risks through water stress assessments and promoting water conservation within the Company’s operations, the organization reduced its water consumption by 7,256.35 cubic meters. This led to a reduction in greenhouse gas emissions by 3.96 tCO₂e, accounting for a 36.46% reduction in emissions from water usage compared to the base year 2023.



Build a Green Network

The Company has expressed its commitment to participate in the transition to carbon neutrality by joining the Thailand Carbon Neutral Network (TCNN) as a “Climate Action Initiator” organization, established by the Thailand Greenhouse Gas Management Organization (Public Organization). This participation aims to foster cooperation among the private sector, government, and local communities to promote carbon neutrality and support climate change mitigation efforts through greenhouse gas reduction activities, contributing to sustainable growth for society.

Results of the Actions Taken to Reduce Greenhouse Gas Emissions within the Organization

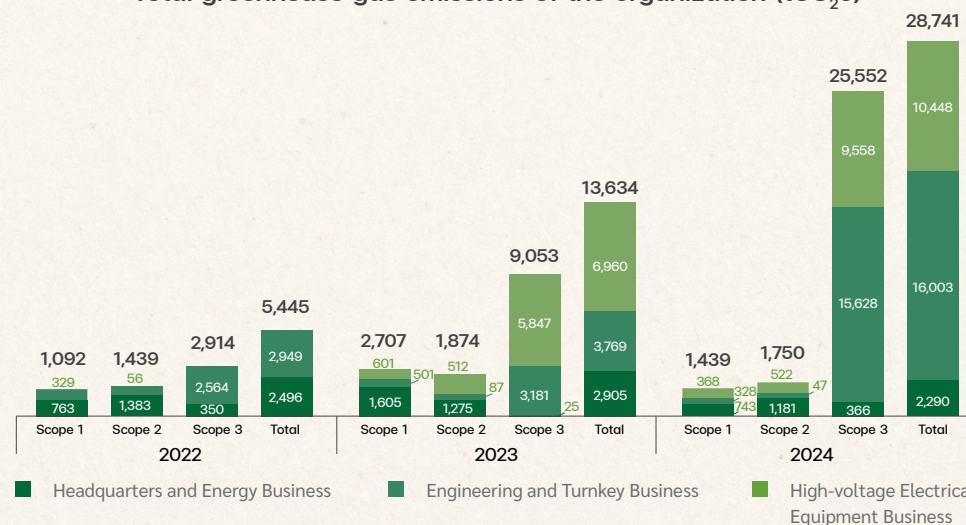


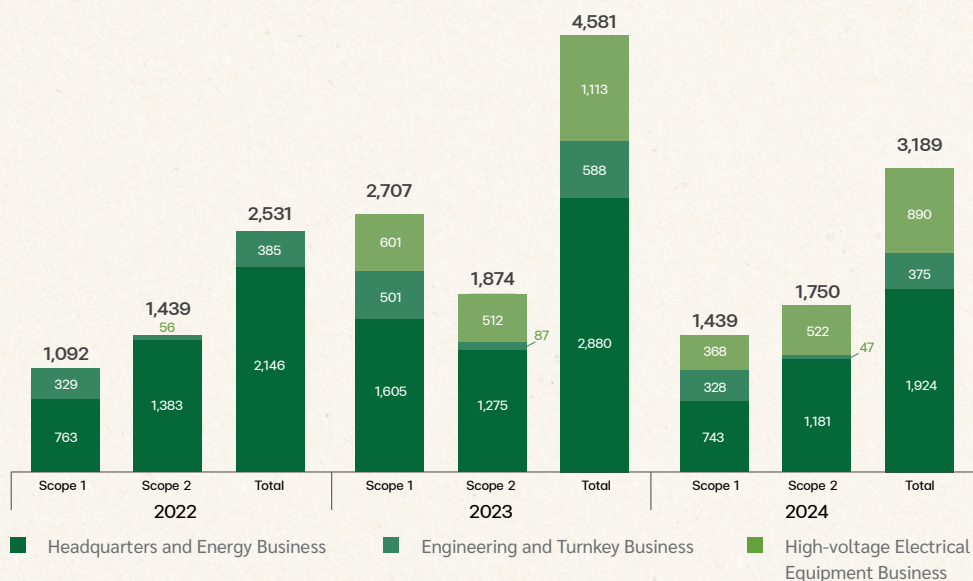
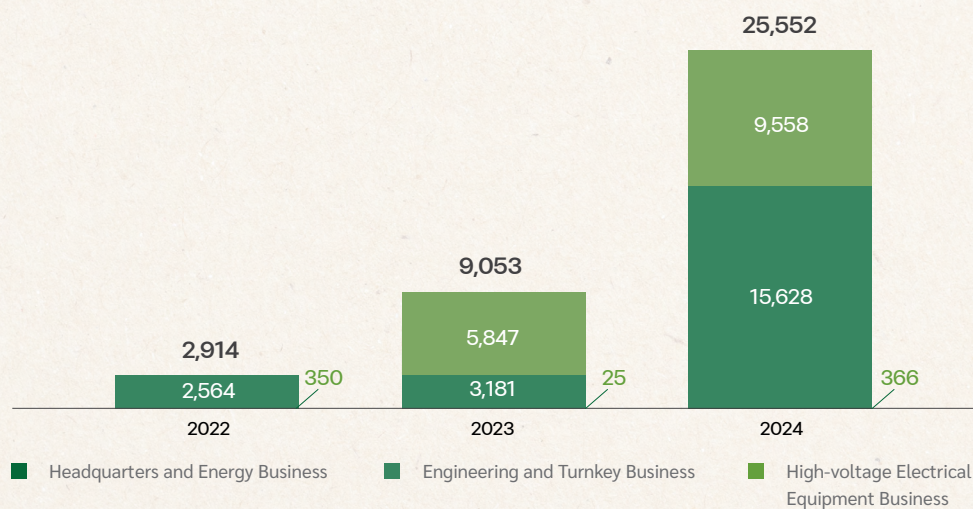
The Company has collected data to assess greenhouse gas emissions covering 3 business groups under a reporting scope of 18 companies. The data has been verified by experts from Bureau Veritas Certification (Thailand) Co., Ltd., and the Company received a Greenhouse Gas Verification Statement according to the ISO 14064-1:2018 standard on 18 March 2025 (Headquarters and Renewable Energy Business), 10 March 2025 (Engineering and Turnkey Business), and 19 March 2025 (High-Voltage Electrical Equipment Business).

In 2024, the performance results against the target to reduce greenhouse gas emissions in Scope 1 and Scope 2 by 6.00% from the 2023 baseline revealed that the total greenhouse gas emissions in Scope 1 and Scope 2, including the headquarters and 3 business groups, amounted to 3,189 tCO₂e, a decrease of 30.39% from 2023. This reduction was divided into a 46.84% reduction in Scope 1 due to measures controlling vehicle usage, changing work methods to reduce travel, and promoting the use of more environmentally friendly fuels. As a result, fuel consumption and greenhouse gas emissions from travel were reduced. In Scope 2, there was a 6.62% decrease due to the efficiency of measures promoting renewable energy use, energy-saving initiatives, and employee participation in reducing electricity consumption within the organization.

Additionally, in terms of reducing Scope 3 greenhouse gas emissions, the Company assessed indirect emissions across 15 categories and reported emissions based on significant categories relevant to the organization's operations. The assessment found that the category of purchasing goods and services was important for all 3 business groups, while the category related to fuels and energy was most significant for the Renewable Energy Business. In 2024, the Scope 3 greenhouse gas emissions of the organization amounted to 25,552 tCO₂e, resulting from the procurement of raw materials used in construction by the Engineering and Turnkey Business, and raw materials used in production by the High-Voltage Electrical Equipment Business. The Scope 3 emissions in 2024 thus increased by 182.25% from the baseline year due to the expansion of manufacturing and construction activities to support the transition to renewable energy business. Despite the increase in Scope 3 emissions, the Company remains committed to conducting business alongside continuous organizational development. A sustainable supply chain management approach has been established to promote efficient energy use, resource and material optimization, and waste reduction to minimize environmental impacts in the value chain. The Company continues to pursue the goal of achieving carbon neutrality and net-zero emissions in line with the country's sustainable development future.

Total greenhouse gas emissions of the organization (tCO₂e)



Greenhouse gas emissions from Scope 1 and Scope 2 (tCO₂e)Greenhouse gas emissions from Scope 3 (tCO₂e)

Scope	Unit	Greenhouse gas emissions data of the organization		
		2022	2023	2024

Greenhouse gas emissions of the headquarters and the Energy Business

Scope 1	tCO ₂ e	763.00	1605.00	743.00
Scope 2	tCO ₂ e	1,383.00	1,275.00	1,181.00
Scope 3	tCO ₂ e	350.00	25.00	366.00
All 3 scopes	tCO ₂ e	2,496.00	2,905.00	2,290.00
Greenhouse gas emissions intensity per output	tCO ₂ e per megawatt-hour	0.0054	0.0052	0.0043
	tCO ₂ e per million baht	n/a	0.45	0.34

Greenhouse gas emissions of the Engineering and Turnkey Business

Scope 1	tCO ₂ e	329.00	501.00	328.00
Scope 2	tCO ₂ e	56.00	87.00	47.00
Scope 3	tCO ₂ e	2,564.00	3,181.00	15,628.00
All 3 scopes	tCO ₂ e	2,949.00	3,769.00	16,003.00
Greenhouse gas emissions intensity per output	tCO ₂ e per million baht	3.20	2.68	7.56

Greenhouse gas emissions of the High-voltage Electrical Equipment Business ⁽¹⁾

Scope 1	tCO ₂ e	n/a	601.00	368.00
Scope 2	tCO ₂ e	n/a	512.00	522.00
Scope 3	tCO ₂ e	n/a	5,847.00	9,558.00
All 3 scopes	tCO ₂ e	n/a	6,960.00	10,448.00
Greenhouse gas emissions intensity per output	tCO ₂ e per million baht	n/a	4.40	4.73

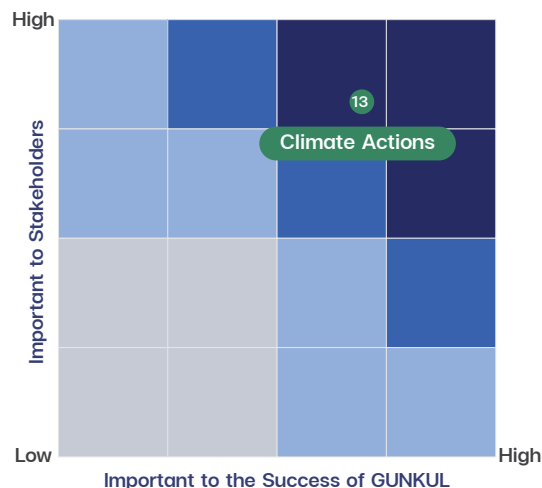
Total greenhouse gas emissions of the organization

Scope 1	tCO ₂ e	1,092.00	2,707.00	1,439.00
Scope 2	tCO ₂ e	1,439.00	1,874.00	1,750.00
Scope 3	tCO ₂ e	2,914.00	9,053.00	25,552.00
All 3 scopes	tCO ₂ e	5,445.00	13,634.00	28,741.00
Greenhouse gas emissions intensity per output	tCO ₂ e per million baht	n/a	1.45	2.58

Remark: ⁽¹⁾ High-voltage Electrical Equipment Business assessed greenhouse gas emissions in 2023 as the first year.

Energy Management

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



- 7.1 Ensure access to reliable modern energy services at affordable prices.
- 7.2 Increase the proportion of renewable energy in the global energy mix.
- 7.3 Raise the global energy efficiency improvement rate.



- 13.3 Develop education, awareness, and the capacity of individuals and institutions in addressing the impacts and adapting to climate change.

Key Performance Results



External electricity consumption has decreased compared to the baseline year 2023

Target
(decreased by 5.00%)

Performance in 2024

Decreased by 6.66%



Challenge and Opportunity

Effective energy management is critically important in today's era since energy plays a vital role in all sectors of the economy and in the daily lives of humans. The growing demand for energy not only creates the risk of energy shortages but also becomes a key factor influencing climate change, an issue that is gaining global attention and having widespread effects. As part of mitigating these impacts, the Company, as a leader in the renewable energy industry, not only uses its expertise to develop innovations and technologies for generating electricity from renewable sources to reduce dependence on fossil fuels but also strengthens energy sustainability for society. Efficient energy use within the organization is another challenge and opportunity to drive sustainable development, aiming to create positive impacts while reducing negative effects on the economy, society, and the environment.

Energy Management Approach

The Company is committed to driving long-term energy conservation success, considering not only the economic returns but also focusing on maximizing the use of renewable energy in business operations. The goal is to produce clean energy for the world using modern technology and innovations. Additionally, in terms of energy management within the organization, the Company has set appropriate policies and guidelines for operations, along with establishing key performance indicators (KPIs) to track progress according to the established strategies. The results are used to continuously improve and develop energy use efficiency.



Energy Reduction Operations

To support sustainable development, the Company manages energy efficiently through measures and initiatives that encourage energy savings, promote the use of renewable energy, and improve the efficiency of internal operations. In 2024, the Company implemented the following actions:



Energy Efficiency

Activities were organized to encourage employee participation in energy conservation, such as campaigns urging employees to turn off devices and electrical appliances immediately when not in use or after use. Additionally, the 'Energy Hero: Awaken the Hero Within You' campaign was launched to raise awareness and change employee behavior, emphasizing the importance of using energy efficiently and helping to reduce energy consumption within the organization in a sustainable manner.



Use of Clean Energy

Promote the use of renewable energy in the high-voltage electrical equipment manufacturing plant to reduce electricity consumption from fossil fuels and greenhouse gas emissions. This includes the installation of solar-powered lighting for nighttime illumination and the installation of a solar power generation system on the factory roof, with a current total production capacity of 98.2 kW.



Results of Energy Reduction Efforts within the Organization



Total electricity consumption of the organization was
3,573,383.86 kilowatt-hours



Total electricity consumption from renewable energy was
76,666.86 kilowatt-hours



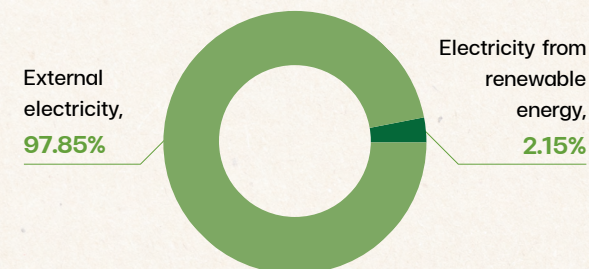
Total external electricity consumption was
3,496,717.00 kilowatt-hours



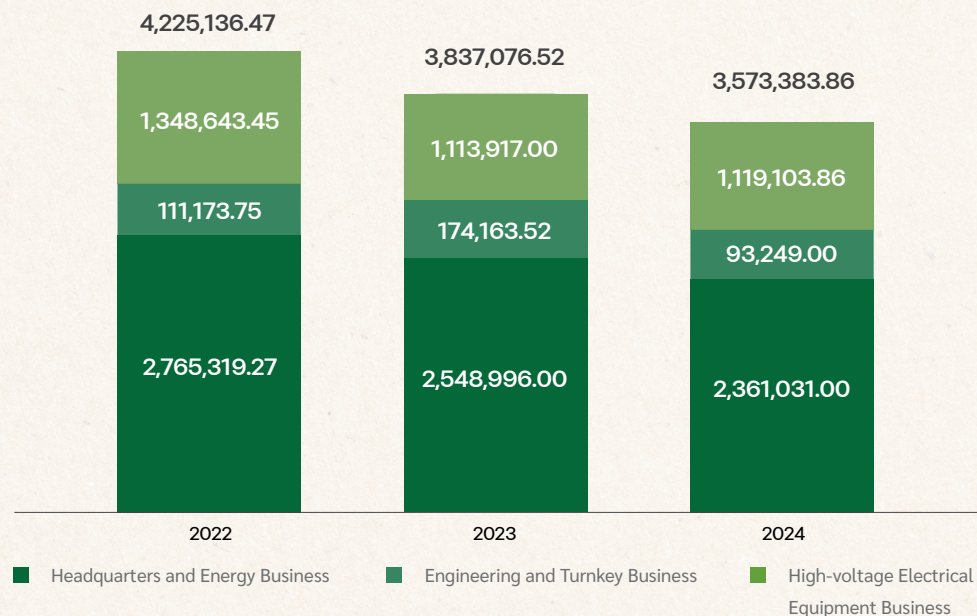
Electricity consumption rate per unit of electricity production was
0.0044 megawatt-hours per megawatt-hours

From the target of reducing external energy consumption by 5.00% compared to 2023, it was found that in 2024, the Company successfully reduced external electricity consumption by 6.66%. The total electricity consumption was 3,573,383.86 kWh, which consisted of 3,496,717.00 kWh from external sources, accounting for 97.85%, and 76,666.86 kWh from renewable energy, accounting for 2.15%. Additionally, the proportion of external electricity consumption per employee was 3,067.30 kWh, which represents a 4.20% decrease from 2023.

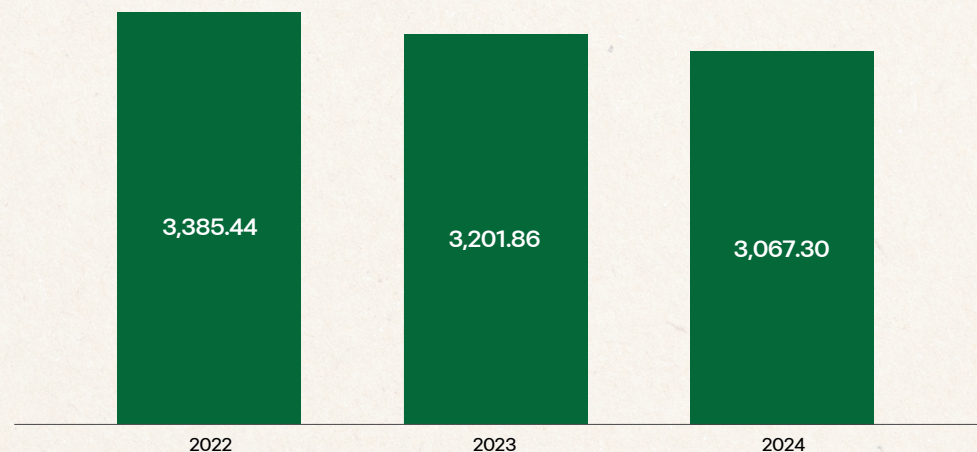
Proportion of renewable energy consumption



Total electricity consumption (kilowatt-hours)



External electricity consumption per employee (kilowatt-hours per person)

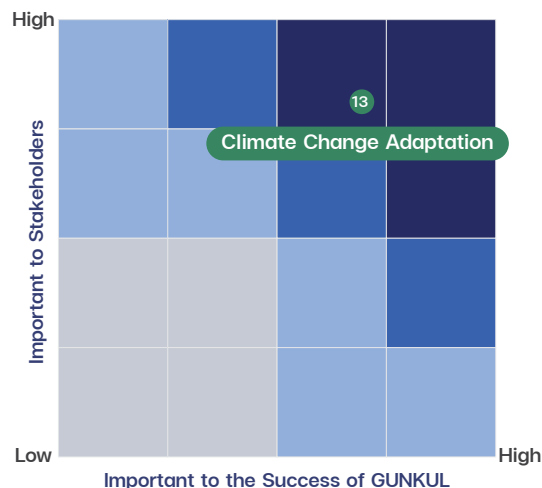


Scope	Unit	Organizational energy consumption		
		2022	2023	2024
Electricity consumption of the Headquarters and Energy business				
External electricity consumption	Kilowatt-hours	2,765,319.27	2,548,996.00	2,361,031.00
Electricity consumption from renewable energy	Kilowatt-hours	n/a	n/a	n/a
Total electricity consumption	Kilowatt-hours	2,765,319.27	2,548,996.00	2,361,031.00
Proportion of renewable energy usage	%	n/a	n/a	n/a
Electricity consumption of Engineering and Turnkey business				
External electricity consumption	Kilowatt-hours	111,173.75	174,163.52	93,249.00
Electricity consumption from renewable energy	Kilowatt-hours	n/a	n/a	n/a
Total electricity consumption	Kilowatt-hours	111,173.75	174,163.52	93,249.00
Proportion of renewable energy usage	%	n/a	n/a	n/a
Electricity consumption of High-voltage Electrical Equipment business				
External electricity consumption	Kilowatt-hours	1,250,361.00	1,023,015.00	1,042,437.00
Electricity consumption from renewable energy	Kilowatt-hours	98,282.45	90,902.00	76,666.86
Total electricity consumption	Kilowatt-hours	1,348,643.45	1,113,917.00	1,119,103.86
Proportion of renewable energy usage	%	7.29%	8.16%	6.85%
Total electricity consumption of the organization				
External electricity consumption	Kilowatt-hours	4,126,854.02	3,746,174.52	3,496,717.00
Electricity consumption from renewable energy	Kilowatt-hours	98,282.45	90,902.00	76,666.86
Total electricity consumption	Kilowatt-hours	4,225,136.47	3,837,076.52	3,573,383.86
Proportion of renewable energy usage	%	2.33%	2.37%	2.15%
External electricity consumption per employee	Kilowatt-hours per person	3,385.44	3,201.86	3,067.30
Electricity consumption rate per unit of electricity production ⁽¹⁾	Megawatt-hours per Megawatt-hours	0.0060	0.0046	0.0044

Remark: ⁽¹⁾ Calculation of electricity consumption rate per unit of electricity production is considered from the electricity consumption relative to the electricity generation of the renewable energy power plant.

Water Management

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



- 6.3 Improve water quality by reducing pollution, eliminate waste disposal, and minimize the release of hazardous chemicals and substances. Reduce the proportion of untreated wastewater and increase the safe and sustainable reuse and recycling of water.

- 6.4 Enhance water efficiency across all sectors and ensure the sustainable use and supply of water to address water scarcity issues.



- 13.3 Develop education, raise awareness, and enhance the capacity of individuals and institutions to reduce impacts and adapt to climate change.

Key Performance Results



External water withdrawal consumption has decreased compared to the baseline year 2023

Target (decreased by 5.00%)

Performance in 2024

decreased by 11.73%



Challenge and Opportunity

The current climate, with its continuous changes, is having a widespread impact on the environment, especially concerning water resources, which are closely linked to the fluctuating climate. The issues that arise are diverse and affect many sectors, such as droughts, floods, rising sea levels, water pollution, and damage to ecosystems. These problems not only affect the environment but also directly impact businesses and industries, as water resources are a key factor in business operations. Water shortages or quality issues can disrupt production processes and increase operational costs. Therefore, sustainable water resource management is crucial for businesses and industries to cope with the challenges and crises they face, through the development of comprehensive and effective water management strategies.



Water Management Approach

The Company is committed to achieving sustainable water management goals, aiming to ensure that its water resources are used efficiently and to their maximum benefit, while also promoting the conservation and restoration of water sources continuously. In line with Goal 6 of the United Nations' Sustainable Development Goals, the Company emphasizes water resource management within the organization according to its Environment and Climate Change Management Policy. The water resource management process includes assessing risks and impacts related to water quantity, establishing measures for water management, implementing operations to reduce water usage efficiently, as well as monitoring and reporting the results of these actions.

Risk Assessment and Impact of Water Quantity

Assess risks and prioritize areas to create a plan for preventing and addressing potential water scarcity issues that may arise from business operations.

Creating Participation to Reduce Water Usage

Engage stakeholders in activities aimed at reducing water consumption, focusing on areas with high water scarcity risk (Water-stressed Areas) as a priority to ensure alignment with the planned timeline.

Water Management Guidelines

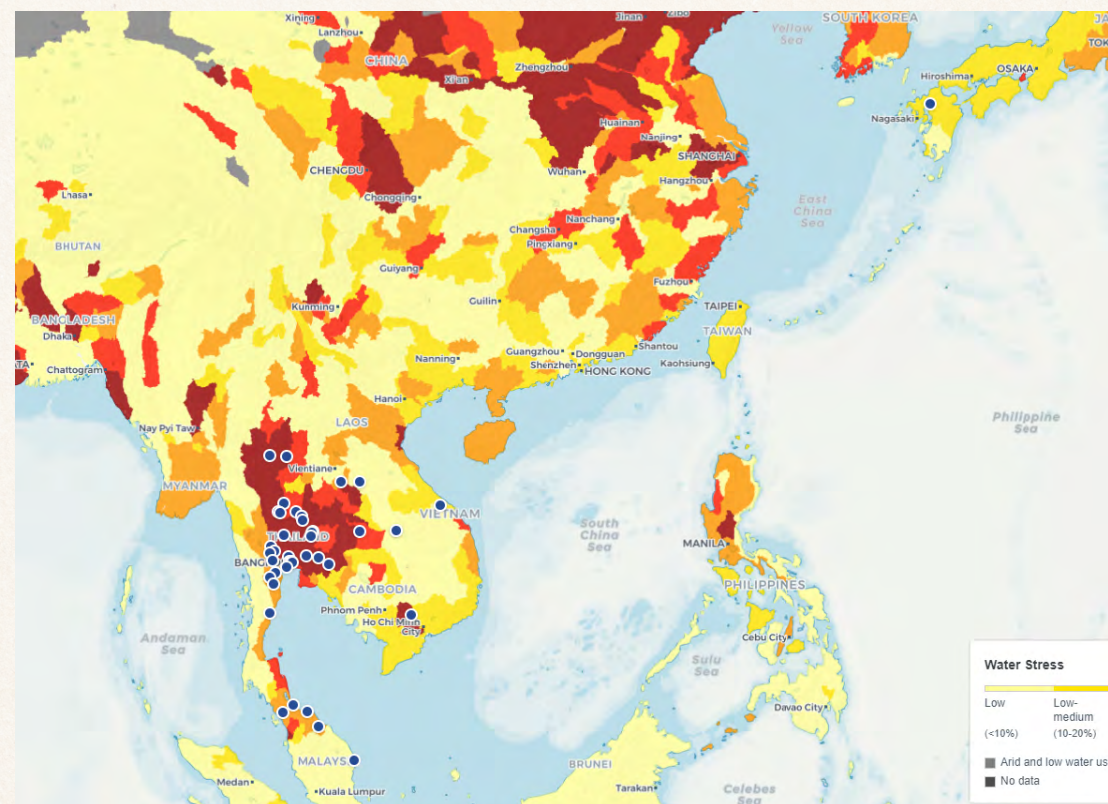
Establish measures for managing water to prevent and mitigate potential impacts identified in the risk assessment regarding water shortages, integrating these measures with the internal management system.

Monitoring and Reporting Performance

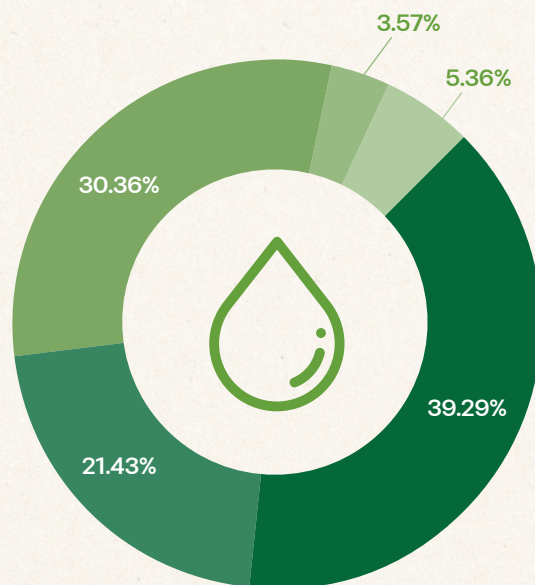
Monitor and assess the effectiveness of the established guidelines and measures to achieve water usage reduction goals, prevent potential risks and impacts, and regularly communicate performance results to relevant stakeholders.

Risk Assessment and Impact of Water Quantity

To ensure the efficient use of water resources in the Company's operations and to develop a risk management plan related to water usage, including the implementation of appropriate mitigation measures, the Company must understand the potential risks and be prepared to address the impacts of climate change. The Company uses the AQUEDUCT Water Risk Atlas tool from the World Resources Institute (WRI) to assess the water scarcity risks in each operational area. This tool is applied to the Company's operations, covering wind farm power plants, solar power plants (including solar farms and floating solar), as well as the headquarters and high-voltage electrical equipment manufacturing plants.



Proportion of the operational area located in Water stressed areas



60.71% of the operational area located in water-scarce areas (High and Extremely High level)

Proportion of water withdrawal in operational areas at risk of water scarcity (High and Extremely High level) **56.38%**

Water stress level	Total operational area		Power plant operation area		Headquarters and manufacturing plant operation area	
	Number (of sites)	% ⁽¹⁾	Number (of sites)	% ⁽¹⁾	Number (of sites)	% ⁽¹⁾
Extremely High (>80%)	22	39.29%	21	37.50%	1	1.79%
High (40-80%)	12	21.43%	8	14.29%	4	7.14%
Medium – High (20-40%)	17	30.36%	17	30.36%	0	0.00%
Low – Medium (10-20%)	2	3.57%	2	3.57%	0	0.00%
Low (<10%)	3	5.36%	3	5.36%	0	0.00%
Water stressed areas	34	60.71%	29	51.79%	5	8.93%
Total operational area	56	100%				

Remark : ⁽¹⁾ % means proportion of areas affected by water-related hazards to the total operational area

The assessment results show that 60.71% of the Company's operational areas (34 out of 56 sites) are located in regions at risk of water scarcity (Water-stressed Areas), with a high to very high level of risk. The water stress at such levels will significantly impact the quantity and quality of water resources used in these areas, potentially leading to severe consequences in the future. Therefore, the Company has prioritized these high to very high-risk areas in order to implement preventive measures and mitigate potential impacts.

Water Management Guidelines

Based on the risk assessment, it was found that the Company operates in areas with high water stress, which could impact both the quality and quantity of water used in production processes or other operations. This may lead to challenges in accessing sufficient and quality water for operational needs. Therefore, the Company has developed a comprehensive water management strategy covering all operational areas to prevent and mitigate the impacts of water scarcity or deterioration in water quality. Areas that are at risk of water scarcity (Water-stressed Areas) and areas with the potential for effective management will be prioritized. The Company has established measures that align with the identified risks that could affect operations and incorporated these measures as standards within the Company's internal management system. This integration is aimed at achieving the highest efficiency in the sustainable management of water resources.

Water Stress-Related Risk Issues	Water Management Measures
Water quality degradation - water quality not meeting standards	<ul style="list-style-type: none"> Improve and control the quality of process water by using efficient water treatment/quality improvement systems to ensure that the water used in processes meets the required quality standards. Improve and control wastewater quality through the use of efficient wastewater treatment systems, in compliance with the regulations and requirements specified by the Ministry of Industry regarding wastewater discharge quality controls. Monitor wastewater quality before it is released into public water sources at least once per year to ensure there are no significant impacts on environmental quality or ecosystems. Follow up on wastewater quality checks, and if the quality does not meet the required standards, corrective actions must be taken immediately.
Water scarcity due to increasing water demand	<ul style="list-style-type: none"> Raise awareness among employees about water conservation through effective communication and public relations channels. Encourage employees to actively participate in efficient water usage to foster a corporate culture focused on sustainable water practices. Promote sustainable water use by reusing and recycling water safely to reduce the use of new water resources and lessen environmental impact. Implement water-saving technologies and equipment in operations to promote efficient water use and reduce water wastage. Collaborate with local communities and relevant agencies to support water conservation projects in the community.



Creating Participation to Reduce Water Usage

The Company manages water usage efficiently based on compliance with relevant legal requirements and regulations, in alignment with its environmental management system. The water management process is comprehensive, covering the water source, water usage in production processes, and the control of wastewater standards before it is released into the public domain. In the Company's 3 business segments, water usage varies due to different operational activities and areas. For the Engineering and Turnkey Business, water usage is primarily for utilities and sanitation systems in temporary office buildings. Therefore, the focus on creating participation to reduce water usage is concentrated on the headquarters. For the Energy Business (wind and solar power plants), and the High-voltage Electrical Equipment Business, covering areas at risk of water scarcity. Water-related activities include water usage for utility and sanitation systems in office buildings, water usage in the production process, water used for cleaning solar panels in solar power plants, and water used for maintaining green spaces at project sites. The Company has taken steps to reduce water usage through various activities, as follows:

Office Buildings

- Raise awareness and promote water-saving behaviors among employees, following the 3Rs principle (Reduce, Reuse, Recycle). The main approach is through the use of water-saving devices in bathrooms (Reduce), such as automatic faucets (Sensors) that regulate water flow appropriately. Additionally, water flow times in bathrooms are set to ensure that water is used efficiently without being excessive.

Factories

- Wastewater from production processes and various activities within the factory undergoes treatment through systems that are continuously maintained and improved to ensure that the treated water meets or exceeds the legal quality standards. This ensures the efficient use of water, alongside reducing water costs. The treated water is then reused (Recycle) for purposes such as irrigation and cleaning. The Company also conducts an annual inspection of wastewater quality before it is discharged into public water sources by an external agency, ensuring that the discharged water meets the established quality standards. If the wastewater quality does not meet the required standards, the Company will analyze the cause and rectify any issues, followed by another inspection to ensure no impact on environmental quality or ecosystems.

Power Plants

- Regular inspection and maintenance of water-related equipment to reduce leakage and unnecessary water loss.
- For power plants located in areas at risk of water scarcity, the Company encourages all employees and local contractors, who are considered stakeholders, to participate in water efficiency activities. The goal is to control water consumption within the power plant, fostering a corporate culture that emphasizes sustainable water usage and aligning with the environmental management system standard ISO 14001:2015 through the "Water Conservation Promotion in Power Plants" initiative. The following projects are being implemented:



Plan and project area survey meeting to assess water usage for each related activity, including public utility water usage, water for cleaning solar panels, and water for tree irrigation in the green area restoration project.



Replace damaged equipment to reduce unnecessary water loss and install equipment that can control water usage, such as pressure-adjustable nozzles, misting nozzles, and sprinklers, to reduce the water flow rate. Additionally, provide clear guidelines on proper equipment usage to employees to ensure water consumption stays within the defined limits.



Follow the operational procedures, monitor the project's progress based on the established water usage criteria, and hold planning meetings to continuously develop the project to ensure effective water resource conservation.

Monitoring and Reporting of Operations



Total water usage within the organization was
39,095.72 cubic meters



Water withdrawn from external sources was
38,999.72 cubic meters

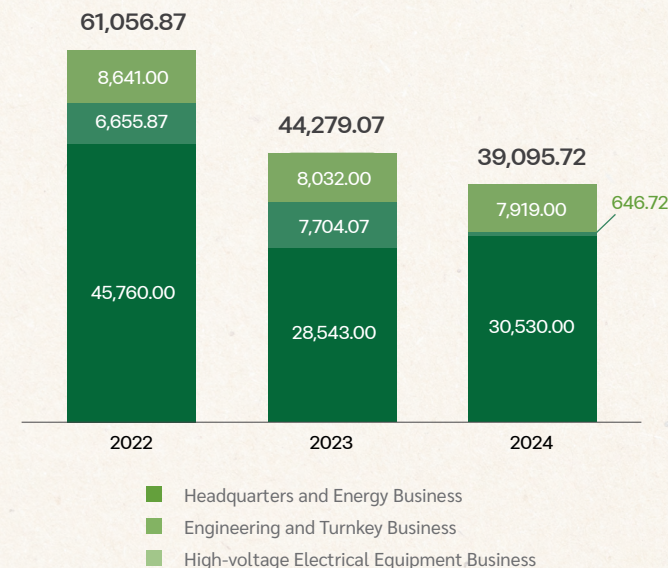


Water recycled was
96 cubic meters

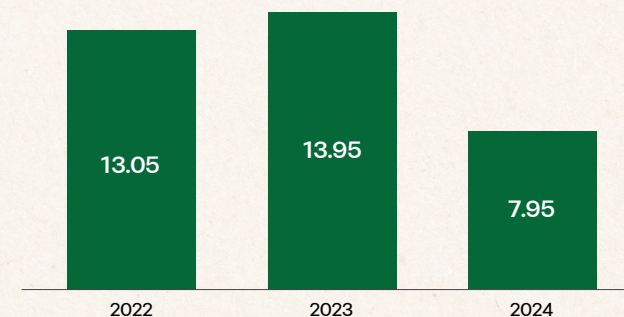


Water usage rate was **0.0572 cubic meters per megawatt-hour** of electricity production

Total water usage (cubic meters)



Tapwater usage per employee (cubic meters per person)



For the year 2024, total water usage within the organization was 39,095.72 cubic meters, which was divided into 29,936.00 cubic meters or 76.76% of groundwater withdrawal and 9,063.72 cubic meters or 23.24% of tapwater usage from external sources. In addition, 96 cubic meters of water was recycled and reused, accounting for 0.25% of total water usage and 1.21% of water usage within the plant. The Company set a target to reduce external water withdrawal by 5.00%. Results show a reduction in external water withdrawal by 11.73%. Furthermore, tapwater usage per employee decreased by 43.00% compared to 2023. The Company remains committed to promoting and raising awareness about the efficient and sustainable use of water resources to ensure continued maximum benefits.

Proportion of recycled water usage



Total water withdrawal categorized by source(cubic meters)



Scope	Unit	Organizational water consumption		
		2022	2023	2024
Water consumption of the Headquarters and Energy business				
Groundwater withdrawal	Cubic meter	45,013.00	27,863.00	29,936.00
Tapwater withdrawal	Cubic meter	747.00	680.00	594.00
Total water withdrawal ⁽¹⁾	Cubic meter	45,760.00	28,543.00	30,530.00
Recycled water usage	Cubic meter	n/a	n/a	n/a
Total water consumption ⁽¹⁾	Cubic meter	45,760.00	28,543.00	30,530.00
Water discharge	Cubic meter	45,760.00	28,543.00	30,530.00
Proportion of recycled water usage	%	n/a	n/a	n/a
Water consumption of Engineering and turnkey business				
Groundwater withdrawal	Cubic meter	n/a	n/a	n/a
Tapwater withdrawal	Cubic meter	6,655.87	7,704.07	646.72
Total water withdrawal ⁽¹⁾	Cubic meter	6,655.87	7,704.07	646.72
Recycled water usage	Cubic meter	n/a	n/a	n/a
Total water consumption ⁽¹⁾	Cubic meter	6,655.87	7,704.07	646.72
Water discharge	Cubic meter	6,655.87	7,704.07	646.72
Proportion of recycled water usage	%	n/a	n/a	n/a

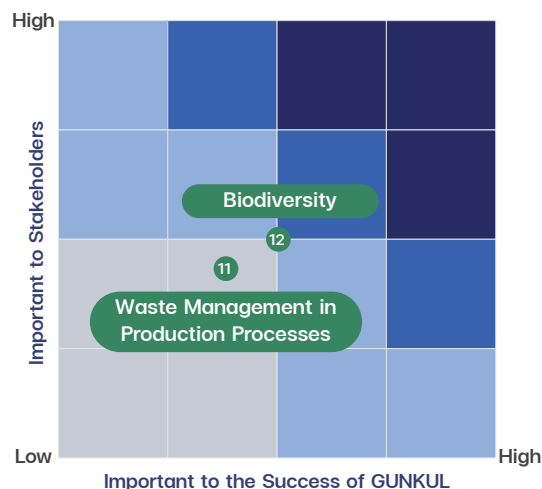
Scope	Unit	Organizational water consumption		
		2022	2023	2024
Water consumption of High-voltage Electrical Equipment business				
Groundwater withdrawal	Cubic meter	n/a	n/a	n/a
Tapwater withdrawal	Cubic meter	8,503.00	7,936.00	7,823.00
Total water withdrawal ⁽¹⁾	Cubic meter	8,503.00	7,936.00	7,823.00
Recycled water usage	Cubic meter	138.00	96.00	96.00
Total water consumption ⁽¹⁾	Cubic meter	8,641.00	8,032.00	7,919.00
Water discharge	Cubic meter	8,503.00	7,936.00	7,823.00
Proportion of recycled water usage	%	1.60	1.20	1.21
Total water consumption of the organization				
Groundwater withdrawal	Cubic meter	45,013.00	27,863.00	29,936.00
Tapwater withdrawal	Cubic meter	15,905.87	16,320.07	9,063.72
Total water withdrawal ⁽¹⁾	Cubic meter	60,918.87	44,183.07	38,999.72
Recycled water usage	Cubic meter	138.00	96.00	96.00
Total water consumption ⁽¹⁾	Cubic meter	61,056.87	44,279.07	39,095.72
Water discharge	%	0.23	0.22	0.25
Tapwater usage per employee	Cubic meter per person	13.05	13.95	7.95
Water usage per unit of electricity generation ⁽²⁾	Cubic meter per megawatt-hours	0.0990	0.0514	0.0572
Number of company areas with water management plans	%	n/a	n/a	53.57
Number of incidents of non-compliance with water quality/ quantity standards and regulations	Cases	0	0	0

Remark : ⁽¹⁾ Total water withdrawal and total water consumption represent the water withdrawal and water usage of the Company, which will cover areas facing water scarcity issues.

⁽²⁾ Calculation of water usage per unit of electricity generation is based on the amount of water used relative to the amount of electricity generation from renewable energy power plants.

Efficient Resource Use and Pollution Management

Respond to Material Issues



Supporting Sustainable Development Goals (SDGs)



6.3 Improve water quality by reducing pollution, eliminate waste disposal, and decrease the release of harmful chemicals and hazardous substances, along with reducing the proportion of untreated wastewater.



12.2 Aim to achieve sustainable management and efficient use of natural resources.



13.3 Develop education, raise awareness, and enhance the capabilities of individuals and institutions in addressing the impacts and adapting to climate change.

Key Performance Results



Proportion of environmentally friendly raw materials used in the production process

Target
(5.00%)

Performance in 2024

8.22%



Amount of hazardous waste from the production process reduced from the 2023 baseline

Target
(Decreased by 5.00%)

Increased by 69.30%

Performance in 2024



Amount of non-hazardous waste from the production process reduced from the 2023 baseline

Target
(Decreased by 5.00%)

Increased by 298.26%

Performance in 2024



Amount of waste from the production process sent to landfills

Target
(Zero)

0.23%

Performance in 2024



Challenge and Opportunity

Inefficient use of resources and a lack of consideration for sustainability have negative impacts on both the environment and the economy. At the same time, waste that is managed improperly is a major cause of pollution, including soil, water, and air pollution, which directly affects human health and ecosystems. At present, air pollution from the use of fossil fuels is a major issue in Thai society, requiring serious cooperation to address it. Recognizing the importance of this problem, the Company is committed to implementing effective strategies to reduce resource use, manage waste, and minimize pollution sustainably. The Company aims to achieve Zero Waste to Landfill by eliminating waste disposal through landfilling, covering both hazardous and non-hazardous waste. The Company also promotes business operations based on circular economy principles, ensuring that every process is sustainable, reduces environmental impact, and creates long-term value. The Company strives to play a key role in driving a sustainable future and collaborates with all sectors to maintain ecological balance for generations to come.

Resource, Waste, and Pollution Management

The Company is committed to and has a systematic approach to managing the reduction of resource use, waste generation, and pollution emissions across all business processes. The focus is on minimizing environmental impact effectively by defining clear steps and strategies based on relevant requirements, standards, and legal regulations. This ensures that each step of the management process aligns with established regulations and leads to sustainable reductions in resource use, waste generation, and pollution emissions. The management process includes the following steps:



Plan

- Identify sources of waste
- Identify types and hazards
- Set objectives, targets, and plans
- Define methods and approaches for management



Do

- Foster participation and raise awareness
- Comply with plans, requirements, and relevant laws
- Segregate waste by type
- Store waste appropriately
- Utilize / treat waste
- Transport for standard management



Check

- Inspect and develop the management system to achieve maximum efficiency
- Monitor the implementation of plans to achieve objectives and goals



Action

- Set guidelines for continuous improvement and development

Efforts to Reduce Resource Use, Waste, and Pollution

The Company manages waste following best practices from the source, focusing on raising awareness among employees to use resources efficiently, minimize waste generation at the source, and continuously follow the 3Rs principles. This is achieved through various activities, as outlined below:



Activities to Reduce / Avoid Resource Use

- To promote the sustainable use of resources and reduce environmental impacts, the Company has set a goal to incorporate at least 5.00% recycled materials into the production of high-voltage electrical equipment in order to reduce the use of new raw materials. This involves using recycled plastic pellets as substitutes in the plastic injection molding process. In 2024, the amount of recycled plastic pellets used accounted for 92.64% of the total plastic pellets used, or 8.22% of the total raw materials used in the production process.

Proportion of Recycled Plastic Pellet Usage





Activities to Reduce / Avoid Waste Generation

- Establish proper waste segregation. Waste that cannot be recycled for reuse is sent to authorized disposal facilities in accordance with legal regulations. The Company strictly controls and monitors the waste management process to ensure compliance with laws and relevant requirements.
- Raise awareness on waste segregation and promote waste reduction through various public communication channels and activities. This also includes encouraging employee participation in initiatives that foster understanding and cooperation in reducing waste generation and minimizing environmental impact from both work activities and daily life, as follows:



Activities for employee participation in Reducing - Avoiding - Eliminating plastic use on World Environment Day through the “Gunkul Say No Plastic” project to drive efforts in solving the plastic waste problem in reducing the generation of waste from single-use plastics.



GUNKUL Go Zero Waste “Separate, Exchange, and Share Merit with Gunkul Activity” is a recycling waste segregation project within the Company, aimed at forwarding recyclable waste to the Mirror Foundation for further use. The Company encourages employees to participate in segregating recyclable waste within the office buildings, focusing on separating items that can be reused from general waste. The goal is to reduce the amount of waste sent to landfills, enhance resource efficiency, and create sustainable benefits for society.

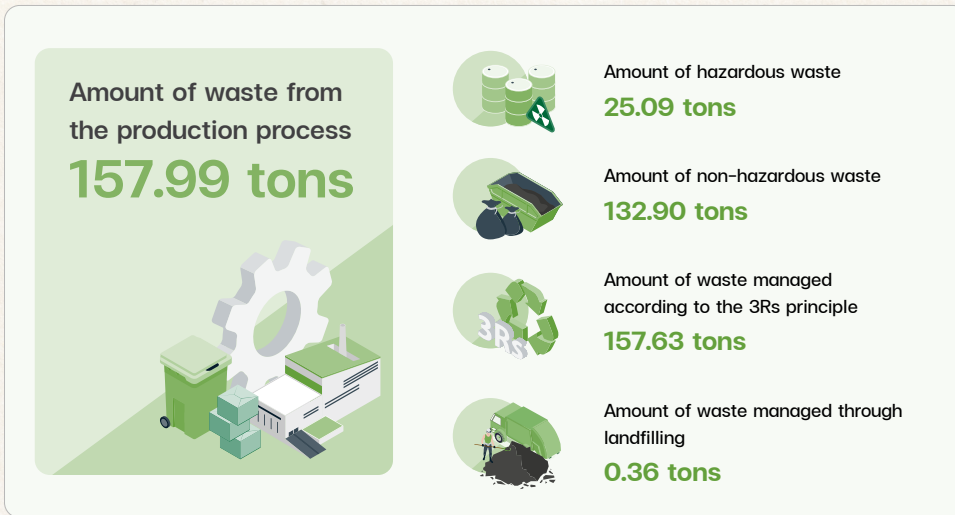


Activities to Reduce/ Avoid Pollution Emissions

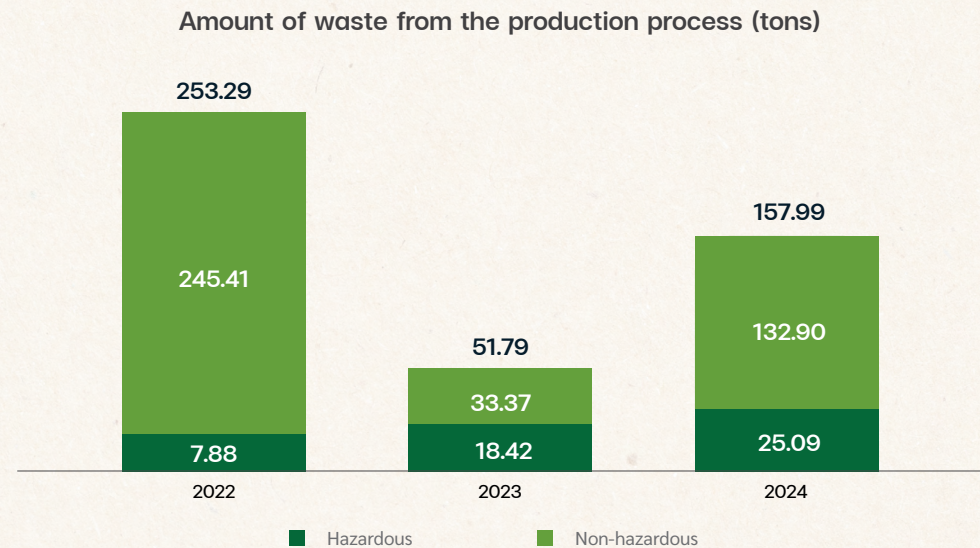
- Establish green space projects in solar power plants by planting trees around the project to help reduce air pollution, as trees can filter dust and pollutants from the air. Some tree species can also absorb toxins in the air, such as nitrogen dioxide (NO₂) and sulfur dioxide (SO₂), which are pollutants generated from combustion activities like vehicle emissions.
- Regularly inspect, maintain, and service engines, machinery, or equipment that burn fuel and generate exhaust gases or dust.
- Monitor air quality in the workplace to ensure it meets the standards set by the Department of Industrial Works or relevant regulations.



Results of efforts to reduce resource use, waste, and pollution



The Company has set a goal to reduce the amount of waste from its production processes sent to landfills to zero, covering both hazardous and non-hazardous waste. According to activities conducted, it was found that in 2024, the total waste generated from the renewable energy power generation process and high-voltage electrical equipment production process amounted to 157.99 tons. Of this, 157.63 tons were managed using the 3Rs waste management principles, accounting for 99.77%. However, 0.36 tons, or 0.23%, were still disposed of by landfilling. As for the goal to reduce the amount of hazardous and non-hazardous waste from production processes by 5.00% compared to the baseline year of 2023, it was not achieved due to the increased production volume. The Company plans to analyze the waste data for each type in detail to identify suitable and effective waste management strategies moving forward.



About this Report

About this Report	125
Scope of Reporting	126
Sustainability Performance	131
GRI Content Index	143
External Verification	151



About this Report

The Company has prepared this sustainability report to present key business issues and strategies for sustainable development, covering the environmental, social, and governance (ESG) dimensions. It focuses on operations in alignment with the strategic plan to achieve the organization's vision and mission under the Sustainable Development Policy, as well as reporting on the performance supporting the achievement of the United Nations Sustainable Development Goals (UN SDGs) for all stakeholders. The report is based on the Global Reporting Initiative (GRI) standards and covers the period from January 1 to December 31, 2024. This report has been reviewed and approved by the Board of Directors and senior management, ensuring the accuracy and completeness of the essential information. Additionally, the environmental data regarding greenhouse gas emissions has been audited and certified (Greenhouse Gas Verification Statement) in accordance with the standards for the quantification and reporting of greenhouse gas emissions and removals at the organizational level (ISO 14064-1: 2018) by experts from Bureau Veritas Certification (Thailand) Co., Ltd.

This report, along with previous reports, can be downloaded from the Company's website.

For more information, please contact

Good Corporate Governance and Sustainable Development Committee

or Office of the Chief Executive Officer division

Gunkul Engineering Public Company Limited

548 One City Centre (OCC), 44th Floor, Phloen Chit Road, Lumpini, Pathum Wan, Bangkok 10330

Tel : (+66) 2 242 5800, (+66) 2 242 5992

Email: sd@gunkul.com and website : www.gunkul.com



Scope of Reporting

The information presented in this report includes the sustainability performance covering the headquarters and the Company's 3 main business groups: the Energy Business, the Engineering and Turnkey Business, and the High-voltage Electrical Equipment Business. The scope of reporting includes data from the Company, subsidiaries, and associated companies/ joint ventures as follows:

Company	Abbreviation	Business type	Economic aspect	Social aspect		Environmental aspect			
				Person	Safety	Greenhouse gas	Energy	Water	Waste
Gunkul Engineering Public Company Limited	GUNKUL	The headquarters	●	●	●	●	●	●	●
Energy Business									
G Wind Power Holding 3 Co., Ltd.	GWPH-3	Invests in the electricity generation business for sale	●	-	-	-	-	-	-
G Wind Power Holding 5 Co., Ltd.	GWPH-5	Invests in the electricity generation business for sale	●	-	-	-	-	-	-
Gunkul Wind Power 1 Co., Ltd.	GWP-1	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Power 2 Co., Ltd.	GWP-2	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Power 3 Co., Ltd.	GWP-3	Electricity generation business for sale	●	●	○	○	○	○	○
Gunkul Wind Power 4 Co., Ltd.	GWP-4	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Power 5 Co., Ltd.	GWP-5	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Power 6 Co., Ltd.	GWP-6	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Power 7 Co., Ltd.	GWP-7	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Power 8 Co., Ltd.	GWP-8	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Power 9 Co., Ltd.	GWP-9	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Power 39 Co., Ltd.	GWP-39	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Power 48 Co., Ltd.	GWP-48	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Development 1 Co., Ltd.	GWD-1	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Development 3 Co., Ltd.	GWD-3	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Development 6 Co., Ltd.	GWD-6	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Development 8 Co., Ltd.	GWD-8	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Development 24 Co., Ltd.	GWD-24	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Development 36 Co., Ltd.	GWD-36	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Development 42 Co., Ltd.	GWD-42	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Development 51 Co., Ltd.	GWD-51	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Development 54 Co., Ltd.	GWD-54	Electricity generation business for sale	●	-	○	○	○	○	○

Company	Abbreviation	Business type	Economic aspect	Social aspect		Environmental aspect			
				Person	Safety	Greenhouse gas	Energy	Water	Waste
Gunkul Wind Development 58 Co., Ltd.	GWD-58	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Wind Development 60 Co., Ltd.	GWD-60	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Windnergy Group Co., Ltd.	GWG	Invests in electricity generation business for sale	●	-	-	-	-	-	-
Gunkul Windnergy 1 Co., Ltd.	GWG-1	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Windnergy 9 Co., Ltd.	GWG-9	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Windnergy 10 Co., Ltd.	GWG-10	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Windnergy 19 Co., Ltd.	GWG-19	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Windnergy 23 Co., Ltd.	GWG-23	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Windnergy 32 Co., Ltd.	GWG-32	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Windnergy 37 Co., Ltd.	GWG-37	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Windnergy 39 Co., Ltd.	GWG-39	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Windnergy 46 Co., Ltd.	GWG-46	Electricity generation business for sale	●	-	○	○	○	○	○
NK Power Solar Co., Ltd.	NKP	Electricity generation business for sale	●	-	○	●	●	●	●
Infinite Alternative Energy Co., Ltd.	IAE	Invests in the electricity generation business for sale	●	-	-	-	-	-	-
Rang Ngerm Solution Co., Ltd.	RNS	Electricity generation business for sale	●	-	○	●	●	●	●
Eco Thai Energy Co., Ltd.	ECO	Electricity generation business for sale	●	-	○	●	●	●	●
BMP Solar Co., Ltd.	BMPS	Electricity generation business for sale	●	●	○	●	●	●	●
Gunkul Solar Power Co., Ltd.	GSP	Invests in the electricity generation business for sale	●	-	-	-	-	-	-
Gunkul Solar Power 1 Co., Ltd.	GSP-1	Electricity generation business for sale	●	-	○	○	●	○	○
Gunkul Solar Power 2 Co., Ltd.	GSP-2	Electricity generation business for sale	●	●	○	●	●	●	●
Gunkul Solar Community Co., Ltd.	GSC	Operates a business installing electrical systems from renewable energy sources	●	●	○	○	○	○	○
Siam Gunkul Solar Energy Co., Ltd.	SGSE	Electricity generation business for sale	●	-	○	○	○	○	○
Solar Energy Society Co., Ltd.	SES	Electricity generation business for sale	●	●	○	●	●	●	●
Gunkul Solar Roof 1 Co., Ltd.	GSR-1	Electricity generation business for sale	●	●	○	●	●	●	●
Gunkul Utility and Energy Co., Ltd.	GUE	Operates a business installing electrical systems from renewable energy sources	●	●	●	○	●	●	○
Gunkul Infinite Group Co., Ltd.	GIG	Operates a business for leasing, subleasing, and managing properties, as well as electricity generation business for sale	●	-	-	-	●	-	-
Bright Green Power Co., Ltd.	BGP	Electricity generation business for sale	●	●	○	○	○	○	○

Company	Abbreviation	Business type	Economic aspect	Social aspect		Environmental aspect			
				Person	Safety	Greenhouse gas	Energy	Water	Waste
Gunkul Solar Powergen Co., Ltd.	GSPG	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul One Energy 2 Co., Ltd.	GOE-2	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul One Energy 5 Co., Ltd.	GOE-5	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul One Energy 9 Co., Ltd.	GOE-9	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul One Energy 11 Co., Ltd.	GOE-11	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul One Energy 18 Co., Ltd.	GOE-18	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul One Energy 20 Co., Ltd.	GOE-20	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul One Energy 23 Co., Ltd.	GOE-23	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul One Solar Holding Co., Ltd.	GOSH	Invests in the electricity generation business for sale	●	-	-	-	-	-	-
Gunkul Solar Farm 1 Co., Ltd.	GSF-1	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 6 Co., Ltd.	GSF-6	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 7 Co., Ltd.	GSF-7	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 11 Co., Ltd.	GSF-11	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 15 Co., Ltd.	GSF-15	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 16 Co., Ltd.	GSF-16	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 24 Co., Ltd.	GSF-24	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 25 Co., Ltd.	GSF-25	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 33 Co., Ltd.	GSF-33	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 34 Co., Ltd.	GSF-34	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 38 Co., Ltd.	GSF-38	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 42 Co., Ltd.	GSF-42	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 43 Co., Ltd.	GSF-43	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 47 Co., Ltd.	GSF-47	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 51 Co., Ltd.	GSF-51	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 52 Co., Ltd.	GSF-52	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 56 Co., Ltd.	GSF-56	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 60 Co., Ltd.	GSF-60	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 61 Co., Ltd.	GSF-61	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 92 Co., Ltd.	GSF-92	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 96 Co., Ltd.	GSF-96	Electricity generation business for sale	●	-	○	○	○	○	○

Company	Abbreviation	Business type	Economic aspect	Social aspect		Environmental aspect			
				Person	Safety	Greenhouse gas	Energy	Water	Waste
Gunkul Solar Farm 98 Co., Ltd.	GSF-98	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 99 Co., Ltd.	GSF-99	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Solar Farm 100 Co., Ltd.	GSF-100	Electricity generation business for sale	●	-	○	○	○	○	○
Gunkul Power Generation Co., Ltd.	GPG	Electricity generation business for sale	●	●	○	○	●	○	○
Future Energy Corporation Co., Ltd.	FE	Services in applications, platforms, and computer programs, and invest in business related to energy	●	●	○	○	○	○	○
Gunkul Godungfaifaa Platform Co., Ltd.	GDFP	Services in applications, platforms, and computer programs	●	●	○	○	○	○	○
Gunkul International (Mauritius)	GIM	Electricity generation business for sale	●	-	-	-	-	-	-
Gunkul International Investment (Singapore) Pte. Ltd.	GIIS	Invests in foreign companies	●	-	-	-	-	-	-
Sendai Okura GD Daiichi Godo Kaisha	SND	Electricity generation business for sale	●	-	-	-	-	-	-
Kimitsu Mega Solar Godo Kaisha	KMT	Electricity generation business for sale	●	-	-	-	-	-	-
Future Asset Management Kabushiki Kaisha	FAM	Invests in business related to energy	●	-	-	-	-	-	-
FAM Green Power Godo Kaisha	FAMGP	Invests in business related to energy	●	-	-	-	-	-	-
Singapore An Yang Pte. Ltd.	SGAY	Invests in foreign companies	●	-	-	-	-	-	-
Singapore Yun Yang Pte. Ltd.	SGYY	Invests in foreign companies	●	-	-	-	-	-	-
Gunkul Vietnam Joint Stock Company	GKVN	Invests in foreign companies	●	-	-	-	-	-	-
Tri Viet Tay Ninh Joint Stock Company	TVTN	Electricity generation business for sale	●	-	-	-	-	-	-
Bach Khoa A Chau Hoa Binh Joint Stock Company	BKHB	Invests in foreign companies	●	-	-	-	-	-	-
Bach Khoa A Chau Tay Ninh Joint Stock Company	BKTN	Electricity generation business for sale	●	-	-	-	-	-	-
Doan Son Thuy Investment Joint Stock Company	DST	Electricity generation business for sale	●	-	-	-	-	-	-
INT Energy Pte. Ltd.	INT	Invests in foreign companies	●	-	-	-	-	-	-
Tan Chau Energy Joint Stock Company	TCE	Electricity generation business for sale	●	-	-	-	-	-	-
Gulf Gunkul Corporation Co., Ltd. ⁽¹⁾	GGC	Invests in the electricity generation business for sale	●	-	-	-	-	-	-
Wind Energy Development Co., Ltd. ⁽¹⁾	WED	Electricity generation business for sale	●	●	●	●	●	●	●
Greenovation Power Co., Ltd. ⁽¹⁾	GNP	Electricity generation business for sale	●	●	●	●	●	●	●
Korat Wind Energy Co., Ltd. ⁽¹⁾	KWE	Electricity generation business for sale	●	●	●	●	●	●	●
Gulf Gunkul Solar Co., Ltd. ⁽¹⁾	GGS	Electricity generation business for sale	●	-	-	-	-	-	-
G-Power Source Co., Ltd. ⁽¹⁾	GPS	Electricity generation business for sale	●	-	○	○	○	○	○
WHA Gunkul Green Solar Roof 1 Co., Ltd. ⁽¹⁾	WHA_GSR-1	Electricity generation business for sale	●	-	○	-	-	-	-

Company	Abbreviation	Business type	Economic aspect	Social aspect		Environmental aspect			
				Person	Safety	Greenhouse gas	Energy	Water	Waste
WHA Gunkul Green Solar Roof 3 Co., Ltd ⁽¹⁾	WHA_GSR-3	Electricity generation business for sale	●	-	○	-	-	-	-
WHA Gunkul Green Solar Roof 6 Co., Ltd ⁽¹⁾	WHA_GSR-6	Electricity generation business for sale	●	-	○	-	-	-	-
WHA Gunkul Green Solar Roof 17 Co., Ltd ⁽¹⁾	WHA_GSR-17	Electricity generation business for sale	●	-	○	-	-	-	-
Pun New Energy Co., Ltd. ⁽¹⁾	PNE	Electricity generation business for sale	●	-	○	-	-	-	-
Origin Gunkul Energy Co., Ltd. ⁽¹⁾	OG	Electricity generation business for sale	●	-	○	-	-	-	-
JGS Power Synergy Co., Ltd. ⁽¹⁾	JGS	Business related to energy	●	-	-	-	-	-	-
Kenyir Gunkul Solar Snd Bhd ⁽¹⁾	KGS	Electricity generation business for sale	●	-	-	-	-	-	-
Engineering and Turnkey Business									
Gunkul Power Development Co., Ltd.	GPD	Engineering and Turnkey business	●	●	●	●	●	●	●
Future Electrical Control Co., Ltd.	FEC	Engineering and Turnkey business	●	●	●	●	●	●	●
GPD & TEECL Joint Venture Co., Ltd.	JV_GPD-TEECL	Engineering and Turnkey business	●	●	●	●	●	●	●
Future Power Construction Co., Ltd.	FPC	Engineering and Turnkey business	●	●	●	●	●	●	●
High-voltage Electrical Equipment Business									
G.K.Assembly Co., Ltd.	GKA	Manufactures equipment for electrical systems for sale	●	●	●	●	●	●	●
G.K.Power Products Co., Ltd.	GKP	Manufactures equipment for electrical systems for sale	●	●	●	●	●	●	●
GAP Supply Co., Ltd.	GAP	Manufactures equipment for electrical systems for sale	●	●	●	○	○	○	○
K.N.P.Supply Co., Ltd.	KNP	Sells equipment for electrical systems	●	●	●	●	●	●	●
GSAP Supply Co., Ltd.	GSAP	Sells equipment for electrical systems	●	-	○	○	○	○	○
RSAP Supply Co., Ltd.	RSAP	Sells equipment for electrical systems	●	-	○	○	○	○	○
Other business									
G.K. Hemp Group Co., Ltd.	GKHG	Invests in hemp and cannabis business	●	●	-	-	-	-	-
G.K. Smart Farming Co., Ltd.	GKSF	Hemp and cannabis business	●	●	-	-	-	-	-
G.K. Bio Extraction Co., Ltd.	GKBE	Hemp and cannabis business	●	●	-	-	-	-	-
THCG Group Co., Ltd.	THCG	Hemp and cannabis business	●	-	-	-	-	-	-
Gunkul Training Center Co., Ltd.	GTRC	Educational service, seminar management, training management and any other related to education	●	-	-	-	-	-	-
G.K. Real Estate (2021) Co., Ltd.	GKRE	Real estate business	●	-	-	-	-	-	-

Remark ⁽¹⁾ Associated companies/ joint ventures

● Covers management information and performance results

○ Covers management information

Sustainability Performance

Social Performance

Employment Data

GRI	Indicators	Unit	2021	2022	2023	2024
GRI 2-7	Total number of employee	person	959	1,219	1,170	1,140
	Number of employees by type of employment					
	Number of full-time employees	person	835	1,033	998	993
	Proportion of full-time employees to total employees	%	87.07	84.74	85.30	87.11
	Number of contract employees	person	124	186	172	147
	Proportion of contract employees to total employees	%	12.93	15.26	14.70	12.89
GRI 405-1	Number of employees by gender					
	Number of male employees	person	610	739	713	687
	Proportion of male employees to total employees	%	63.61	60.62	60.94	60.26
	Number of female employees	person	349	480	457	453
	Proportion of female employees to total employees	%	36.39	39.38	39.06	39.74
GRI 2-7	Number of employees by workplace					
	Number of employees working at the headquarters and main building	person	666	796	750	756
	Proportion of employees working at the headquarters and main building to total employees	%	69.45	65.30	64.10	66.32
	Number of employees working outside the headquarters and main building	person	293	423	420	384
	Proportion of employees working outside the headquarters and main building to total employees	%	30.55	34.70	35.90	33.68
GRI 405-1	Number of employees by age					
	Number of employees under 30 years old	person	309	410	362	339
	Proportion of employees under 30 years old to total employees	%	32.22	33.63	30.94	29.74
	Number of male employees under 30 years old	person	n/a	n/a	221	188
	Proportion of male employees under 30 years old to total employees under 30 years old	%	n/a	n/a	61.05	55.46
	Number of female employees under 30 years old	person	n/a	n/a	141	151
	Proportion of female employees under 30 years old to total employees under 30 years old	%	n/a	n/a	38.95	44.54

GRI	Indicators	Unit	2021	2022	2023	2024
	Number of employees aged 30-50 years	person	574	701	691	700
	Proportion of employees aged 30-50 years to total employees	%	59.85	57.51	59.06	61.40
	Number of male employees aged 30-50 years	person	n/a	n/a	426	430
	Proportion of male employees aged 30-50 years to total employees under 30 years old	%	n/a	n/a	61.65	61.43
	Number of female employees aged 30-50 years	person	n/a	n/a	265	270
	Proportion of female employees aged 30-50 years to total employees under 30 years old	%	n/a	n/a	38.35	38.57
	Number of employees over 50 years old	person	76	108	117	101
	Proportion of employees over 50 years old to total employees	%	7.92	8.86	10.00	8.86
	Number of male employees over 50 years old	person	n/a	n/a	66	69
	Proportion of male employees over 50 years old to total employees under 30 years old	%	n/a	n/a	56.41	68.32
	Number of female employees over 50 years old	person	n/a	n/a	51	32
	Proportion of female employees over 50 years old to total employees under 30 years old	%	n/a	n/a	43.59	31.68
GRI 405-1	Number of employees by generation					
	Number of Baby Boom employees	person	n/a	n/a	14	4
	Proportion of Baby Boom employees to total employees	%	n/a	n/a	1.20	0.35
	Number of Generation X employees	person	n/a	n/a	207	197
	Proportion of Generation X employees to total employees	%	n/a	n/a	17.69	17.28
	Number of Generation Y employees	person	n/a	n/a	808	718
	Proportion of Generation Y employees to total employees	%	n/a	n/a	69.06	62.98
	Number of Generation Z employees	person	n/a	n/a	141	221
	Proportion of Generation Z employees to total employees	%	n/a	n/a	12.05	19.39
GRI 405-1	Number of employees by job level					
	Number of senior executives	person	41	59	46	53
	Proportion of senior executives to total employees	%	4.28	4.84	3.93	4.65
	Number of male senior executives	person	n/a	n/a	34	37
	Proportion of male senior executives to total senior executives	%	n/a	n/a	73.91	69.81
	Number of female senior executives	person	n/a	n/a	12	16
	Proportion of female senior executives to total senior executives	%	n/a	n/a	26.09	30.19
	Number of department manager-level employees	person	71	87	93	85
	Proportion of department manager-level employees to total employees	%	7.40	7.14	7.95	7.46
	Number of male department manager-level employees	person	n/a	n/a	68	67
	Proportion of male department manager-level employees to total department manager-level employees	%	n/a	n/a	73.12	78.82

GRI	Indicators	Unit	2021	2022	2023	2024
	Number of female department manager-level employees	person	n/a	n/a	25	18
	Proportion of female department manager-level employees to total department manager-level employees	%	n/a	n/a	26.88	21.18
	Number of department head/unit head employees	person	117	143	137	157
	Proportion of department head/unit head employees to total employees	%	12.20	11.73	11.71	13.77
	Number of male department head/unit head employees	person	n/a	n/a	87	92
	Proportion of male department head/unit head employees to total department head/unit head employees	%	n/a	n/a	63.50	58.60
	Number of female department head/unit head employees	person	n/a	n/a	50	65
	Proportion of female department head/unit head employees to total department head/unit head employees	%	n/a	n/a	36.50	41.40
	Number of entry-level to mid-level employees	person	509	646	644	623
	Proportion of entry-level to mid-level employees to total employees	%	53.08	52.99	55.04	54.65
	Number of male entry-level to mid-level employees	person	n/a	n/a	369	327
	Proportion of male entry-level to mid-level employees to total entry-level to mid-level employees	%	n/a	n/a	57.30	52.49
	Number of female entry-level to mid-level employees	person	n/a	n/a	275	296
	Proportion of female entry-level to mid-level employees to total entry-level to mid-level employees	%	n/a	n/a	42.70	47.51
	Number of operational-level employees	person	221	284	250	222
	Proportion of operational-level employees to total employees	%	23.04	23.30	21.37	19.47
	Number of male operational-level employees	person	n/a	n/a	155	164
	Proportion of male operational-level employees to total operational-level employees	%	n/a	n/a	62.00	73.87
	Number of female operational-level employees	person	n/a	n/a	95	58
	Proportion of female operational-level employees to total operational-level employees	%	n/a	n/a	38.00	26.13
GRI 405-1	Number of employees by nationality					
	Number of Thai nationality employees	person	914	1,161	1,116	1,088
	Proportion of Thai nationality employees to total employees	%	95.31	95.24	95.38	95.44
	Number of foreign nationality employees	person	45	58	54	52
	Proportion of foreign nationality employees to total employees	%	4.69	4.76	4.62	4.56
GRI 405-1	Number of employees by education level					
	Number of employees with secondary education or below bachelor's degree	person	371	505	495	375
	Proportion of employees with secondary education or below bachelor's degree to total employees	%	38.69	41.43	42.31	32.89

GRI	Indicators	Unit	2021	2022	2023	2024
	Number of employees with a bachelor's degree	person	576	685	655	733
	Proportion of employees with a bachelor's degree to total employees	%	60.06	56.19	55.98	64.30
	Number of employees with a master's degree	person	15	21	16	28
	Proportion of employees with a master's degree to total employees	%	1.56	1.72	1.37	2.46
	Number of employees with a doctoral degree	person	6	8	4	4
	Proportion of employees with a doctoral degree to total employees	%	0.63	0.66	0.34	0.35
-	Number of vulnerable employees					
	Number of employees with disabilities	person	8	11	7	9
	Proportion of employees with disabilities to total employees	%	0.83	0.90	0.60	0.79
	Number of elderly employees	person	8	11	12	6
	Proportion of elderly employees to total employees	%	0.83	0.90	1.03	0.53

Employee Resignation Data

GRI	Indicators	Unit	2021	2022	2023	2024
GRI 401-1	Total number of employees who resigned	person	190	217	317	285
	Overall turnover rate	%	1.63	1.54	2.50	2.04
	Number of employees who resigned by gender					
	Number of male employees who resigned	person	105	136	171	143
	Proportion of male employees who resigned	%	55.26	62.67	53.94	50.18
	Number of female employees who resigned	person	85	81	146	142
	Proportion of female employees who resigned	%	44.74	37.33	46.06	49.82

New Hire Data

GRI	Indicators	Unit	2021	2022	2023	2024
GRI 401-1	Total number of new hires	person	185	433	361	247
	New hire rate	%	1.84	3.53	2.62	1.77

GRI	Indicators	Unit	2021	2022	2023	2024
	Number of new hires by gender					
	Number of new male hires	person	112	244	206	115
	Proportion of new male hires	%	60.54	56.35	57.06	46.56
	Number of new female hires	person	73	189	155	132
	Proportion of new female hires	%	39.46	43.65	42.94	53.44

Maternity and Parental Leave Data

GRI	Indicators	Unit	2021	2022	2023	2024
GRI 401-3	Total number of employees entitled to maternity and parental leave	person	n/a	n/a	457	453
	Number of employees who used maternity and parental leave	person	n/a	n/a	3	6
	Number of employees who returned to work after using maternity and parental leave	person	n/a	n/a	3	6
	Proportion of employees who returned to work after using maternity and parental leave	%	n/a	n/a	100.00	100.00

Employee Compensation Data

GRI	Indicators	Unit	2021	2022	2023	2024
GRI 405-2	Total compensation of all employees	THB	398,777,207	431,042,592	478,608,899	518,496,549
	Total compensation of employees by gender					
	Total compensation of male employees	THB	n/a	n/a	306,501,825	334,443,627
	Proportion of total compensation of male employees to total compensation of all employees	%	n/a	n/a	64.04	64.50
	Total compensation of female employees	THB	n/a	n/a	172,107,074	184,052,922
	Proportion of total compensation of female employees to total compensation of all employees	%	n/a	n/a	35.96	35.50

GRI	Indicators	Unit	2021	2022	2023	2024
	Average compensation of employees					
	Average compensation of all employees	THB/person	n/a	n/a	425,808.63	476,997.75
	Average compensation of male employees	THB/person	n/a	n/a	451,401.80	514,528.66
	Average compensation of female employees	THB/person	n/a	n/a	386,757.47	421,173.73
	Average compensation ratio between female employees and male employees	times	n/a	n/a	0.86	0.82
-	Employee provident fund					
	Number of employees who are members of the provident fund	person	n/a	533	590	636
	Proportion of employees participating in the provident fund	%	n/a	43.72	50.43	55.79
	Amount the company contributes to the provident fund	THB	n/a	13,610,527	20,516,489.02	49,993,723.44
	Proportion of the company's contribution to the provident fund relative to the total compensation of all employees	%	n/a	3.16	4.29	9.64

Remark : Total employee compensation, excluding senior executive compensation

Employee Development Data

GRI	Indicators	Unit	2021	2022	2023	2024
GRI 404-1	Number of training sessions					
	Total training budget	million THB	2.00	1.20	3.63	3.69
	Total number of training courses	course	111	95	122	241
	Total training hours	hour	4,805	6,843	9,471	15,139
	Total number of employees trained	person	1,371	1,609	1,625	3,772
	Average training hours per person	hour/person/year	5.01	5.61	8.09	13.28
	Average training hours per person classified by level					
	Total training hours for senior executives and directors	hour	899.54	841.00	923.50	1,142.60
	Average training hours per person for senior executives and directors	hour/person/year	21.94	14.25	20.08	21.56
	Total training hours for assistant managers and department managers	hour	653.20	893.00	945.50	1,843.20
	Average training hours per person for assistant managers and department managers	hour/person/year	9.20	10.26	10.17	21.68
	Total training hours for department heads and uni heads	hour	865.80	1,102.00	1,289.50	2,908.65
	Average training hours per person for department heads and uni heads	hour/person/year	7.40	7.71	9.41	18.53

GRI	Indicators	Unit	2021	2022	2023	2024
	Total training hours for entry-level to mid-level employees	hour	3,008.19	964.00	5,223.50	7,565.95
	Average training hours per person for entry-level to mid-level employees	hour/person/year	5.91	1.49	8.11	12.14
	Total training hours for operational-level employees	hour	267.41	64.00	1,089.00	1,678.50
	Average training hours per person for operational-level employees	hour/person/year	1.21	0.23	4.36	7.56

Employee Care Data

GRI	Indicators	Unit	2021	2022	2023	2024
GRI 2-29	Total number of employees promoted	person	18	34	29	44
	Proportion of employees promoted to the total number of employees	%	1.88	2.79	2.48	3.86
	Employees promoted by gender					
	Number of male employees promoted	person	11	24	20	25
	Proportion of male employees promoted to the total number of employees promoted	%	61.11	70.59	68.97	56.82
	Number of female employees promoted	person	8	10	9	19
	Proportion of female employees promoted to the total number of employees promoted	%	44.44	29.41	31.03	43.18
	Employees promoted by level					
	Number of executive-level employees promoted	person	1	8	0	5
	Proportion of executive-level employees promoted to the total number of employees	%	5.56	23.53	0.00	11.36
	Number of assistant manager and department manager-level employees promoted	person	6	9	8	11
	Proportion of assistant manager and department manager-level employees promoted to the total number of employees	%	33.33	26.47	27.59	25.00
	Number of department/unit head-level employees promoted	person	11	17	21	28
	Proportion of department/unit head-level employees promoted to the total number of employees	%	61.11	50.00	72.41	63.64
	Level of satisfaction and organizational commitment					
	Level of satisfaction and organizational commitment	%	86.00	86.83	77.00	74.00
	Proportion of employees who responded to the satisfaction survey to the total number of employees	%	n/a	n/a	89.40	86.00
GRI 406-1	Employee complaints related to labor practices					
	Number of complaints related to labor practices	case	0	0	0	0

Occupational Health and Safety Data

GRI	Indicators	หน่วย	2021	2022	2023	2024
GRI 403-9	Number of work-related accidents					
	Number of work-related accidents	case	2	17	26	23
	Number of work-related accidents resulting in lost workdays					
	Employees	case	0	4	1	2
	Contractors	case	0	0	1	3
	Rate of work-related injuries resulting in lost workdays					
	Employees	case per million hours worked	n/a	1.44	0.36	0.74
	Contractors	case per million hours worked	n/a	n/a	0.64	1.85
	Number of fatalities from work-related injuries					
	Employees	case	0	0	0	0
	Contractors	case	0	0	0	0
GRI 403-10	Rate of work-related illnesses and diseases					
	Rate of work-related illnesses and diseases	case per million hours worked	0	0	0	0

Environmental Performance

Energy Consumption Data within the Organization

GRI	Indicators	Unit	2021 ⁽¹⁾	2022	2023	2024
GRI 302-1	Total electricity consumption of the organization	kWh	3,683,180.17	4,225,136.47	3,837,076.52	3,573,383.86
	Amount of electricity consumed from external sources	kWh	3,580,399.76	4,126,854.02	3,746,174.52	3,496,717.00
	Amount of electricity consumed from renewable energy (GKA Solar Rooftop)	kWh	102,780.41	98,282.45	90,902.00	76,666.86
	Proportion of renewable energy consumption	proportion	2.79	2.33	2.37	2.15
GRI 302-3	Amount of electricity consumed from external sources per employee	kWh per person	3,733.47	3,385.44	3,201.86	3,067.30
	Electricity usage rate per unit of electricity production ⁽²⁾	MWh per MWh	0.0053	0.0060	0.0046	0.0044
GRI 302-1	Amount of oil and fuel consumed by the organization					
	Amount of diesel consumed	liter	n/a	236,701.03	679,919.28	374,412.90
	Amount of gasoline consumed	liter	n/a	107,268.21	337,509.68	133,099.27
	Amount of natural gas consumed	liter	n/a	6,420.93	9,753.16	6,257.65
	Amount of liquefied petroleum gas (LPG) consumed	kilogram	n/a	0.00	15.00	0.00
GRI 302-1	Amount of electricity produced for sale by the energy business group⁽³⁾					
	Total electricity production from renewable energy	MWh	n/a	n/a	n/a	769,467.23
	Amount of electricity produced from wind energy	MWh	n/a	n/a	n/a	391,458.04
	Amount of electricity produced from solar energy	MWh	n/a	n/a	n/a	378,009.19

Remark : ⁽¹⁾ The performance results cover only the headquarters and the Energy Business, as well as the High-voltage Electrical Equipment Business.

⁽²⁾ Energy intensity calculation per unit of electricity production is based on the amount of electricity consumed relative to the electricity production of the renewable energy power plants.

⁽³⁾ The volume of electricity production for domestic sale only.

Water Consumption Data within the Organization

GRI	Indicators	Unit	2021 ⁽¹⁾	2022	2023	2024
GRI 303-5	Total water consumption of the organization⁽²⁾	cubic meter	37,406.58	61,056.87	44,279.07	39,095.72
GRI 303-3	Amount of total water withdrawal from external sources ⁽²⁾	cubic meter	37,310.58	60,918.87	44,183.07	38,999.72
	Amount of tapwater withdrawal	cubic meter	6,903.00	15,905.87	16,320.07	9,063.72
	Amount of groundwater withdrawal	cubic meter	30,407.58	45,013.00	27,863.00	29,936.00
GRI 303-5	Amount of recycled water used	cubic meter	96.00	138.00	96.00	96.00
	Proportion of recycled water usage	%	0.26	0.23	0.22	0.25

GRI	Indicators	Unit	2021 ⁽¹⁾	2022	2023	2024
-	Amount of tapwater used per employee	cubic meters per person	7.20	13.05	13.95	7.95
	Water usage rate per unit of electricity production ⁽³⁾	cubic meters per megawatt-hour	0.0595	0.0990	0.0514	0.0572
GRI 303-4	Amount of water discharged	cubic meter	37,310.58	60,918.87	44,183.07	38,999.72
-	Number of company areas with water management plans	proportion	n/a	n/a	n/a	53.57
	Number of incidents of non-compliance with water quality/quantity standards and regulations	event	0	0	0	0

Remark : ⁽¹⁾ The performance results cover only the headquarters and the Energy Business, as well as the High-voltage Electrical Equipment Business.

⁽²⁾ Total water withdrawal and total water consumption are data that represent the Company's water withdrawal and usage, covering areas experiencing water scarcity issues.

⁽³⁾ Water intensity calculation per unit of electricity production is based on the amount of water used relative to the electricity production of renewable energy power plants.

Resources and Waste Management Data

GRI	Indicators	Unit	2021	2022	2023	2024
GRI 301-1	Amount of raw materials used in the process					
	Total amount of raw materials used in the process	ton	n/a	438.45	3,116.20	35,267.21
	Amount of raw materials used in the construction process	ton	n/a	438.45	967.50	28,825.75
	Amount of raw materials used in the production process of high-voltage electrical equipment	ton	n/a	n/a	2,148.70	6,441.46
GRI 306-3	Amount of waste from the production process (industrial waste)⁽¹⁾					
	Total amount of waste from the production process	ton	166.79	253.29	51.79	157.99
	Amount of non-hazardous waste	ton	162.92	245.41	33.37	132.90
	Proportion of non-hazardous waste to the total amount of production process waste	%	97.68	96.89	64.43	84.12
	Amount of hazardous waste	ton	3.87	7.88	18.42	25.09
	Proportion of hazardous waste to the total amount of production process waste	%	2.32	3.11	35.57	15.88
GRI 306-4	Amount of waste managed according to the 3Rs principle	ton	163.69	249.93	39.76	157.63
	Proportion of waste managed according to the 3Rs principle to the total amount of production process waste	%	98.14	98.67	76.77	99.77
GRI 306-5	Amount of waste sent to landfill	ton	3.10	3.36	12.03	0.36
	Proportion of waste sent to landfill to the total amount of production process waste	%	1.86	1.33	23.23	0.23

Remark : ⁽¹⁾ The performance results cover only the Energy Business and the High-voltage Electrical Equipment Business.

Greenhouse Gas Emissions Data of the Organization

GRI	Indicators	Unit	2021 ⁽¹⁾	2022 ⁽²⁾	2023 ⁽³⁾	2024 ⁽³⁾
-	Greenhouse gas emissions of the organization					
	Total greenhouse gas emissions from all 3 scopes	tCO ₂ e	2,388.00	5,445.00	13,634.00	28,741.00
	Direct and indirect greenhouse gas emissions (Scope 1 and 2)	tCO ₂ e	2,055.00	2,531.00	4,581.00	3,189.00
GRI 305-1	Direct greenhouse gas emissions (Scope 1)	tCO ₂ e	661.00	1,092.00	2,707.00	1,439.00
GRI 305-2	Indirect greenhouse gas emissions (Scope 2)	tCO ₂ e	1,394.00	1,439.00	1,874.00	1,750.00
GRI 305-3	Other indirect greenhouse gas emissions (Scope 3) ⁽⁴⁾	tCO ₂ e	333.00	2,914.00	9,053.00	25,552.00
GRI 305-3	Other indirect greenhouse gas emissions (Scope 3) classified by emission source type ⁽⁵⁾					
	Category 1 Purchase goods and services	tCO ₂ e	14.26	2,597.36	9,051.78	25,230.69
	Category 2 Capital goods	tCO ₂ e	n/a	n/a	n/a	n/a
	Category 3 Fuel- and energy-related activities	tCO ₂ e	n/a	395.00	691.23	507.50
	Category 4 Upstream transportation and distribution	tCO ₂ e	62.57	61.34	209.95	409.47
	Category 5 Waste generated in operations	tCO ₂ e	n/a	113.61	180.54	272.74
	Category 6 Business travel	tCO ₂ e	n/a	n/a	9.84	33.19
	Category 7 Employee commuting	tCO ₂ e	255.36	184.11	527.73	575.24
	Category 8 Upstream leased assets	tCO ₂ e	n/a	n/a	n/a	n/a
	Category 9 Downstream transportation and distribution	tCO ₂ e	0.04	n/a	394.09	804.06
	Category 10 Processing of sold products	tCO ₂ e	n/a	n/a	n/a	n/a
	Category 11 Use of sold products	tCO ₂ e	n/a	n/a	1,015.20	902.40
	Category 12 End of life treatment of sold products	tCO ₂ e	n/a	n/a	n/a	n/a
	Category 13 Downstream leased assets	tCO ₂ e	n/a	n/a	n/a	n/a
	Category 14 Franchises	tCO ₂ e	n/a	n/a	n/a	n/a
	Category 15 Investments	tCO ₂ e	n/a	n/a	n/a	n/a
GRI 305-4	Greenhouse gas emissions rate per production unit	tCO ₂ e per million THB	n/a	n/a	1.45	2.58

Remark : ⁽¹⁾ The organization's greenhouse gas emissions cover only the headquarters and the Energy Business.

⁽²⁾ The organization's greenhouse gas emissions cover the headquarters, the Energy Business, the Engineering and Turnkey Business.

⁽³⁾ The organization's greenhouse gas emissions cover the headquarters, the Energy Business, the Engineering and Turnkey Business, as well as the High-voltage Electrical Equipment Business.

⁽⁴⁾ Other indirect greenhouse gas emissions cover only the emission sources that have undergone an assessment process of significant indirect GHG, and the data is verified by external verifier.

This includes the sum of significant indirect GHG emissions from the headquarters, the Energy Business, the Engineering and Turnkey Business, and the High Voltage Electrical Equipment Business.

⁽⁵⁾ Other indirect GHG according to activity categories relevant to the entire organization, which is the sum of significant indirect GHG emissions from the headquarters, the Energy Business, the Engineering and Turnkey Business, and the High Voltage Electrical Equipment Business.

Pollution Management Data

GRI	Indicators	Unit	2021	2022	2023	2024
GRI 303-4	Quality of wastewater before discharge into public water sources ⁽¹⁾					
	Total Dissolved Solids (TDS)	mg/L	n/a	326.00	218.00	210.00
	Total Suspended Solids (TSS)	mg/L	n/a	12.00	<10.00	<10.00
	Biochemical Oxygen Demand (BOD)	mg/L	n/a	9.80	5.50	9.60
	Chemical Oxygen Demand (COD)	mg/L	n/a	<40.0	<40.0	<40.0
	Public water sources for discharge	Public water sources of Plai Bang Subdistrict Municipality				
GRI 305-7	Air quality in the workplace area ⁽¹⁾					
	Toluene	parts per million	n/a	8.321	<0.017	0.378
	Lead Fume	mg/m³	n/a	<0.010	<0.010	<0.010
	Total Dust	mg/m³	n/a	0.154	0.092	0.049
	Total VOCs	mg/m³	n/a	2.971	<0.062	<0.062
	Amount of other air pollutants emissions					
	Amount of nitrogen oxides and sulfur dioxide emissions	kilogram	n/a	n/a	n/a	n/a

Remark : ⁽¹⁾ The performance results are limited to the manufacturing segment of the High-voltage Electrical Equipment Business.

GRI Content Index

Statement of use	Gunkul Engineering Public Company Limited has reported in accordance with the GRI Standards for the period 1 January 2024 to 31 December 2024.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	None

GRI STANDARD	DISCLOSURE	LOCATION (PAGE NUMBER(S))	OMISSION			EXTERNAL ASSURANCE
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
General disclosures						
GRI 2: General Disclosures 2021	2-1 Organizational details	page 6, 125, 56-1 One Report page 8, 28				
	2-2 Entities included in the organization’s sustainability reporting	page 126-130				
	2-3 Reporting period, frequency and contact point	page 125, 143, 56-1 One Report page 10-11, 292				
	2-4 Restatements of information	page 25-26				
	2-5 External assurance	page 143-151				
	2-6 Activities, value chain and other business relationships	page 6, 17, 56-1 One Report page 30, 52-79				
	2-7 Employees	page 64, 131-135				
	2-8 Workers who are not employees	page 131				
	2-9 Governance structure and composition	page 15, 56-1 One Report page 168, 173-185				
	2-10 Nomination and selection of the highest governance body	56-1 One Report page 194-197				
	2-11 Chair of the highest governance body	56-1 One Report page 173				
	2-12 Role of the highest governance body in overseeing the management of impacts	56-1 One Report page 174-185				
	2-13 Delegation of responsibility for managing impacts	page 15, 56-1 One Report page 181-185				
	2-14 Role of the highest governance body in sustainability reporting	page 25, 125, 56-1 One Report page 181-183				

GRI STANDARD	DISCLOSURE	LOCATION (PAGE NUMBER(S))	OMISSION			EXTERNAL ASSURANCE
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
	2-15 Conflicts of interest	56-1 One Report page, 160-162, 177-179, 207				
	2-16 Communication of critical concerns	56-1 One Report page 208-209				
	2-17 Collective knowledge of the highest governance body	56-1 One Report page 194-197				
	2-18 Evaluation of the performance of the highest governance body	56-1 One Report page 197-199				
	2-19 Remuneration policies	56-1 One Report page 201-202				
	2-20 Process to determine remuneration	56-1 One Report page 203				
	2-21 Annual total compensation ratio	-	a, b, c	Confidentiality constraints	Information is classified	
	2-22 Statement on sustainable development strategy	page 3-4				
	2-23 Policy commitments	page 10, 58-59				
	2-24 Embedding policy commitments	page 10-11 and all chapter				
	2-25 Processes to remediate negative impacts	page 18-24				
	2-26 Mechanisms for seeking advice and raising concerns	page 18-24, 40-41				
	2-27 Compliance with laws and regulations	page 36, 38, 54, 57, 56-1 One Report page 142				
	2-28 Membership associations	page 38, 42				
	2-29 Approach to stakeholder engagement	page 18-24				
	2-30 Collective bargaining agreements	page 64, 131-134				
Material topics						
GRI 3: Material Topics 2021	3-1 Process to determine material topics	page 25				
	3-2 List of material topics	page 26-33				
Economic performance						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 11				
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	page 17, 56-1 One Report page 10-12				
	201-2 Financial implications and other risks and opportunities due to climate change	page 43-46, 103-104, 56-1 One Report page 102				

GRI STANDARD	DISCLOSURE	LOCATION (PAGE NUMBER(S))	OMISSION			EXTERNAL ASSURANCE
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
	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 80				
Indirect economic impacts						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 27-28, 31, 82-83, 94-95				
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	56-1 One Report page 52-79				
	203-2 Significant indirect economic impacts	56-1 One Report page 43-51				
Procurement practices						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 28, 47				
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	page 53				
Anti-corruption						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 27, 39				
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	page 38, 40				
	205-2 Communication and training about anti-corruption policies and procedures	page 38, 42				
	205-3 Confirmed incidents of corruption and actions taken	page 38, 56-1 One Report page 208-209				
Anti-competitive behavior						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 27, 39				
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	page 38, 56-1 One Report page 208-209				
Tax						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 54-55				
GRI 207: Tax 2019	207-1 Approach to tax	page 54-55				
	207-2 Tax governance, control, and risk management	page 55				
	207-3 Stakeholder engagement and management of concerns related to tax	page 55				
	207-4 Country-by-country reporting	56-1 One Report page 309				

GRI STANDARD	DISCLOSURE	LOCATION (PAGE NUMBER(S))	OMISSION			EXTERNAL ASSURANCE
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Materials						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 32, 120-121				
GRI 301: Materials 2016	301-1 Materials used by weight or volume	page 123, 140				
	301-2 Recycled input materials used	page 120-121, 123				
	301-3 Reclaimed products and their packaging materials	-	a, b	Confidentiality constraints	Information is classified	
Energy						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 33, 110-111				
GRI 302: Energy 2016	302-1 Energy consumption within the organization	page 110-112, 139				
	302-2 Energy consumption outside of the organization	page 110-112, 139				
	302-3 Energy intensity	page 110-112, 139				
	302-4 Reduction of energy consumption	page 110-112				
	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.	
Water and effluents						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 113-114				
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	page 114-116				
	303-2 Management of water discharge-related impacts	page 100				
	303-3 Water withdrawal	page 118-119, 139-140				
	303-4 Water discharge	page 118-119, 139-140, 142				
	303-5 Water consumption	page 115, 118-119, 139-140				
Biodiversity						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 32, 101				
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	page 102				

GRI STANDARD	DISCLOSURE	LOCATION (PAGE NUMBER(S))	OMISSION			EXTERNAL ASSURANCE
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
	304-2 Significant impacts of activities, products and services on biodiversity	page 102				
	304-3 Habitats protected or restored	page 102				
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	-	a	Information unavailable/incomplete	Information is unavailable.	
Emissions						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 33, 103-107				
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	page 108-109, 141				Yes
	305-2 Energy indirect (Scope 2) GHG emissions	page 108-109, 141				Yes
	305-3 Other indirect (Scope 3) GHG emissions	page 108-109, 141				Yes
	305-4 GHG emissions intensity	page 108-109, 141				Yes
	305-5 Reduction of GHG emissions	page 108-109, 141				
	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 142				
Waste						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 32, 120-121				
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	page 121-122				
	306-2 Management of significant waste-related impacts	page 121-122				
	306-3 Waste generated	page 123, 140				
	306-4 Waste diverted from disposal	page 123, 140				
	306-5 Waste directed to disposal	page 123, 140				
Supplier environmental assessment						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 28, 47				

GRI STANDARD	DISCLOSURE	LOCATION (PAGE NUMBER(S))	OMISSION			EXTERNAL ASSURANCE
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	page 47, 49				
	308-2 Negative environmental impacts in the supply chain and actions taken	page 50-51				
Employment						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 30, 63-64				
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	page 65, 67, 69, 134-135				
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	page 67				
	401-3 Parental leave	page 135				
Occupational health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 29, 75-76				
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	page 76-81				
	403-2 Hazard identification, risk assessment, and incident investigation	page 77-78				
	403-3 Occupational health services	page 76-80				
	403-4 Worker participation, consultation, and communication on occupational health and safety	page 76-80				
	403-5 Worker training on occupational health and safety	page 79				
	403-6 Promotion of worker health	page 67				
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	page 77-80				
	403-8 Workers covered by an occupational health and safety management system	page 76, 81				
	403-9 Work-related injuries	page 75, 81, 138				
	403-10 Work-related ill health	page 81, 138				
Training and education						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 30, 63-64, 69				

GRI STANDARD	DISCLOSURE	LOCATION (PAGE NUMBER(S))	OMISSION			EXTERNAL ASSURANCE
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	page 63, 70, 74, 136-137				
	404-2 Programs for upgrading employee skills and transition assistance programs	page 69-73				
	404-3 Percentage of employees receiving regular performance and career development reviews	page 131-134, 136-137				
Diversity and equal opportunity						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 29, 57-59				
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	page 131-134				
	405-2 Ratio of basic salary and remuneration of women to men	page 135-136				
Non-discrimination						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 29, 57-59				
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	page 57				
Freedom of association and collective bargaining						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 47				
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 20, 48				
Child labor						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 29, 57-59				
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	page 48, 59-60				
Forced or compulsory labor						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 29, 57-59				
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	page 48, 59-60				
Rights of indigenous peoples						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 29, 57-59				

GRI STANDARD	DISCLOSURE	LOCATION (PAGE NUMBER(S))	OMISSION			EXTERNAL ASSURANCE
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	page 57				
Local communities						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 31, 87-88				
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	page 24, 87-93				
	413-2 Operations with significant actual and potential negative impacts on local communities	page 87-88				
Supplier social assessment						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 28, 47				
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	page 47, 49				
	414-2 Negative social impacts in the supply chain and actions taken	page 50-51				
Customer health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 31, 82-83				
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	page 82-86				
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	page 82				
Customer privacy						
GRI 3: Material Topics 2021	3-3 Management of material topics	page 29, 57-59				
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	page 57				

GUNKUL Engineering Public Company Limited

548 One City Centre (OCC), 44th Floor, Phloen Chit Road,
Lumphini, Pathum Wan, Bangkok 10330

Tel. 0 2242 5800

www.gunkul.com