Integrated Sustainability Report 2025
Global Power Synergy Public Company Limited

DECARBONIZATION FOR SUSTAINABLE FUTURE

Forever in our humble, mournful hearts

With our utmost gratitude to the late Her Royal Highness Queen Sirikit,
the Queen Mother, who passed away on October 24 this year.

We Thais will forever cherish her dedication to countless charitable work,
notably that of SUPPORT Foundation under her patronage,
which has not only supported Thai arts and crafts,
but also provided training and support to women in rural areas.

Through the years, Her Royal Highness Queen Sirikit, the Queen Mother,
is best remembered for her constant companionship
of the late King Bhumibol (Rama IX).
She will always remain fondly in our hearts.

On behalf of the Board of Directors, Management, and Employees
of Global Power Synergy Plc.

GPSC Strategic Framework

- Enhance Competitiveness
- Business Expansion
- Decarbonization

Enabler

- Portfolio Management
- Financial Strategy
- Organization Management

DECARBONIZATION FOR SUSTAINABLE FUTURE

Fully aware of climate change impacts, GPSC strives to develop technologies and innovations in parallel with Internal Carbon Pricing (ICP) application in managing risks and pursuing new business opportunities under the **Drive toward Low-carbon Businesses and Net Zero Greenhouse Gas (GHG) Emissions.** In the interest of more tangible energy transitioning, we have now accelerated our Net Zero GHG Emissions goal to 2050, rather than 2060.

Corporate Value : ACT SPIRIT

- **A** Ambition
- **C** Commitment
- **T** Trust
- **S** Synergy
- **P** Performance Excellence

Vision

The global leading innovative and sustainable power company

Mission

To be the power and smart energy flagship of PTT Group

To generate value added for shareholders with steady profit growth

To deliver reliable power and utilities for customers through operational excellence

To conduct business by being responsible to community, social, and environment

To seek innovation in power and utility efficiency management through smart energy solution

I Innovation

R Responsibility for Society

I Integrity & Ethics

T Trust & Respect

Contents

This Report

GRI 2-1, 2-2, 2-3, 2-4, 2-5

Global Power Synergy Public Company Limited (the Company) publishes sustainability reports annually to disclose its economic, social, and environmental performance, which reflects the Company's commitment to sustainable development, with due regard to material issues that impact both its business operations and all stakeholder groups.

The 2025 Integrated Sustainability Report presents GPSC's performance from January 1 to December 31, 2025. The reporting scope of the sustainability disclosures aligns with GPSC Group's consolidated financial statements, accounting for more than 75%* of the total consolidated revenue. For 2025, the scope has been expanded to include the performance of Houay Ho Power Company Limited (HHPC) to ensure more comprehensive disclosure.

The Environmental, Social, and Governance (ESG) data within this report was collected from business units and companies within the specified reporting scope. However, for certain indicators, the scope of data may vary based on the nature of the business and data availability. In such cases, the reporting scope for each individual indicator has been specified as appropriate.

This report has been prepared in accordance with the Value Reporting Foundation's Integrated Reporting (IR) framework, with key material issues selected through a double materiality assessment. The management approaches and performance results are disclosed in accordance with the Global Reporting Initiative (GRI) Standards 2021, with additional indicators for the Electric Utilities Sector Disclosures.

Furthermore, GPSC has partially incorporated disclosure principles stipulated by the International Financial Reporting Standards, specifically IFRS S1, which sets out general requirements for the disclosure of sustainability-related financial information, and IFRS S2, which encompasses the disclosure of data on climate change-related opportunities and risks, based on the recommendations of SASB Standards. The Company has also defined targets and reported its performance in alignment with the United Nations Sustainable Development Goals (SDGs).

The 2025 Integrated Sustainability Report has been partly reproduced on the company website. To ensure accuracy and full compliance with the GRI standards, as well as to support sustainability assessments, such as the FTSE Russell ESG Scores and the S&P Global Corporate Sustainability Assessment (CSA), this report, for both this publication and the website content, has undergone verification for limited data assurance by SGS (Thailand) Co., Ltd. Further details can be found on pages 080-083. The year 2025 marks the ninth consecutive year of third-party assurance, reflecting GPSC's ongoing commitment to sustainability disclosure.

GPSC is determined to consistently improve the quality of its sustainability reports to elevate the quality of information disclosure and welcomes all suggestions so that they may be integrated into the process to promote long-term sustainable development.

*Further details regarding the reporting scope can be found on pages 076-079 of this report.

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Policy | Materiality | Performance Data | Stakeholder Engagement | GRI Content Index | Online Reader Survey

Message from the CEO

Dear Shareholders,

The year 2025 marked a pivotal period in the global energy transition. Under mounting pressure from climate change, geopolitical volatility, and economic uncertainty, all sectors were compelled to decisively restructure their energy production and consumption, as evidenced in the rapid growth of renewable energy, decarbonization efforts in the energy sector, rising demand for clean energy, and increasingly stringent carbon measures across many countries. These factors prompted global businesses, especially those committed to 100% renewable energy, to accelerate their adaptation and upgrade their energy systems, which will significantly influence the direction of the modern energy market.

Within the context of international cooperation frameworks, the 30th UN Climate Change Conference (COP30) in Belém, Brazil, underscored the critical importance of global collaboration in addressing the climate crisis and reaffirmed the commitment to limit global temperature rise to 1.5 degrees Celsius, in line with the Global Stocktake, which is the assessment of the collective progress on global climate actions, under the Paris Agreement. Fully committed to this mission, GPSC has moved its net-zero emissions goal forward from 2060 to 2050, aligning with Thailand's Nationally Determined Contribution 3.0 (NDC 3.0) framework.

At GPSC, we view these shifts as an opportunity to elevate our role as a leading international power producer. In particular, we strive to build a solid business foundation; enhance organizational resilience; and leverage digitalization and AI integration to improve energy management efficiency and support decarbonization. In addition, we are preparing to expand our clean energy investments through low-carbon technologies, such as small modular reactors (SMR), ammonia co-firing in coal-fired power plants, and carbon capture and storage (CCS) technology.

We operate under our vision: "To be a leading innovative and sustainable power company to create long-term value for all stakeholders." As part of our commitment to the creation of sustainable value across economic, environmental, and social dimensions, we have established a sustainability framework with the following key objectives:

- Set a target to achieve net-zero GHG emissions by 2050.
- Support the achievement of the United Nations Sustainable Development Goals (SDGs).
- Conduct business in adherence to the United Nations Guiding Principles on Business and Human Rights.
- Drive and develop smart electricity and energy innovations in collaboration with PTT Group to accommodate evolving energy consumption patterns in the future.

In 2025, we achieved outstanding performance in terms of international sustainability assessments, operating results, and renewable capacity expansion, as detailed below.

- We participated in the S&P Global Corporate Sustainability Assessment (CSA) and were ranked in the top decile (as of September 18, 2025), placing us among the leading companies in the Electric Utilities industry.

- We participated in the Carbon Disclosure Project (CDP) and received a Management Level (B) rating for the sixth consecutive year.
- We were listed in the SET ESG Ratings for the seventh consecutive year (with an AAA rating in 2025).
- We received an “Excellent” rating in the Corporate Governance Report (CGR) assessment for the tenth consecutive year.
- We recorded a net profit of THB 6,399 million, a 58% increase compared to 2024, reflecting improved operational efficiency and an EBITDA uplift.
- An additional 335 MW of renewable energy projects commenced commercial operations, bringing total renewable energy capacity, including operational as well as under-construction and under-development projects, to approximately 9,425 MW, representing 70% of the total installed capacity of 13,452 MW.

Finally, as the CEO of GPSC, I would like to express my sincerest gratitude to our shareholders, customers, business partners, and all stakeholders for their continued support and trust in the company over the past 13 years. We remain steadfast in our commitment to the principles of good governance, environmental stewardship, and the creation of shared value with society across our business operations, while also actively forging collaborations across all sectors to drive the organization towards stable, sustainable growth and earn recognition as a leading energy company on an international level.

Worawat Pitayasiri
Chief Executive Officer

Business Activities Across the Value Chain

Sourcing | Production | Business Administration & Support | Product Development and Marketing and Sales | Transmission/Distribution/ Customer Service

Input

1. Financial capital
- Operating expense: THB 63,956 MM
- Liability: THB 147,823 MM
- Cash flow from operating activities: THB 21,305 MM

2. Human Capital
- Total employees: 1,071
- Employee-related expense: THB 2,026 MM
- Employee training expense: THB 19 MM

3. Manufacturing Capital
- Assets, property, plant, and equipment: THB 86,936 MM
- Maintenance expense

4. Social and Relationship Capital
- CSR activity investment budget

5. Intellectual Capital
- Employee innovators
- R&D budget

6. Natural Capital
- Environmental management expense: THB 25 MM
- Environment-related training expense: THB 237,177
- Water withdrawal: 26,434 mm^3

Outcome for GPSC

1. Financial capital
- Net profit of THB 6,399 MM, a 58% YoY increase from 2024

2. Human Capital
- Turnover rate: 3.2%
- Employee-to-executive ratio: 3.55%

3. Manufacturing Capital
- Total capacity: 6,896 MW

4. Social and Relationship Capital
- Social return on investment (SROI): 1.53 – 11.06

5. Intellectual Capital
- Pilot ESS battery prototyping and installation projects for customers
- Revenue from ESS products

6. Natural Capital
- Reduced GHG emissions from energy efficiency optimization: Over 90,000 tCO_2
- Corporate renewable energy consumption: 709,936 kWh
- Water reclaimed and reused: 116,773 liters
- No fine incurred from environmental impact created

Output

- Energy generated: 19,981 GWh; Steam generated: 13,626 kilotons
- Energy products and services, such as energy storage technology and smart energy management systems
- Clean energy management for clients to meet net-zero targets
- Actionable environmental and climate change management

Corporate vision

The global leading innovative and sustainable power company

Corporate strategies

Enhance Competitiveness → Business Expansion → Decarbonization Technology → Innovative Energy Solutions

Net-zero strategies

1. Reduce fossil fuel usage
2. Grow renewables
3. Develop Decarbonization Technologies
4. Trading and offset

Outcome for Stakeholders

1. Financial capital

- Total shareholder return: 6.04%
- Earnings per share
- Dividend payment

Investor, Shareholder, Partners

2. Human Capital

- Employee engagement: 71%
- Average annual training hours per employee: 38.98 hrs.

Employees

3. Manufacturing Capital

- Availability of power distribution systems
- Reduced forced outage time

Investor, Partners, Customer

4. Social and Relationship Capital

- Zero cases of human right violation
- Revenue generated for communities: THB 2.6 MM
- Community satisfaction rate: 89%
- Customer satisfaction rate: 93%

Investor, Community & Society, Partners, Government Agency & Related Organization, Suppliers

5. Intellectual Capital

- Customer and supplier education on battery products
- Investment in NUOVO PLUS

Investor, Shareholder, Partners, Community & Society

6. Natural Capital

- Zero landfilling of hazardous waste from operations
- GHG emissions reduced under T-VER: 7,673 tCO_2
- 10,000 rai of forests restored by 2030
- Net-zero GHG emissions by 2060

Investor, Government Agency & Related Organization, Community & Society

Business Activities

1. GRC, Maintaining Reliability and Availability

- Operation guided by corporate governance principles
- Culture of risk and emergency management
- Strategies for reliable power delivery through production excellence

2. OHS, Employee-focused Organization, Human Rights

- Promotion of health and safety in the work environment
- Capability development, employee care, and continuous training program development
- Emphasis on increasing HCROI
- Succession planning for all positions
- Human rights due diligence

3. Maintaining Reliability and Availability

- Efficient and reliable electricity production
- Investment expansion for energy delivery capability enhancement
- Increasing the value of synergy through M&A

4. Customer Relationship Management, Supply Chain Management, Sustainable Community

- Community satisfaction enhancement and survey
- Customer satisfaction enhancement and survey
- Stakeholder participation promotion

5. Being an Innovative Leader, Capturing the Future Sustainability Market

- Pilot ESS battery prototyping and installation projects for customers
- Preparation of ESS battery installation contracts and/or MOUs

6. Environmental Management, Clean Energy towards Net Zero

- Resource management (energy, water, air pollution) according to standards
- Setting net-zero emissions targets
- Reducing GHG emissions through T-VER according to Thailand's standards
- Biodiversity risk management

Business Strategy and Business Outlook

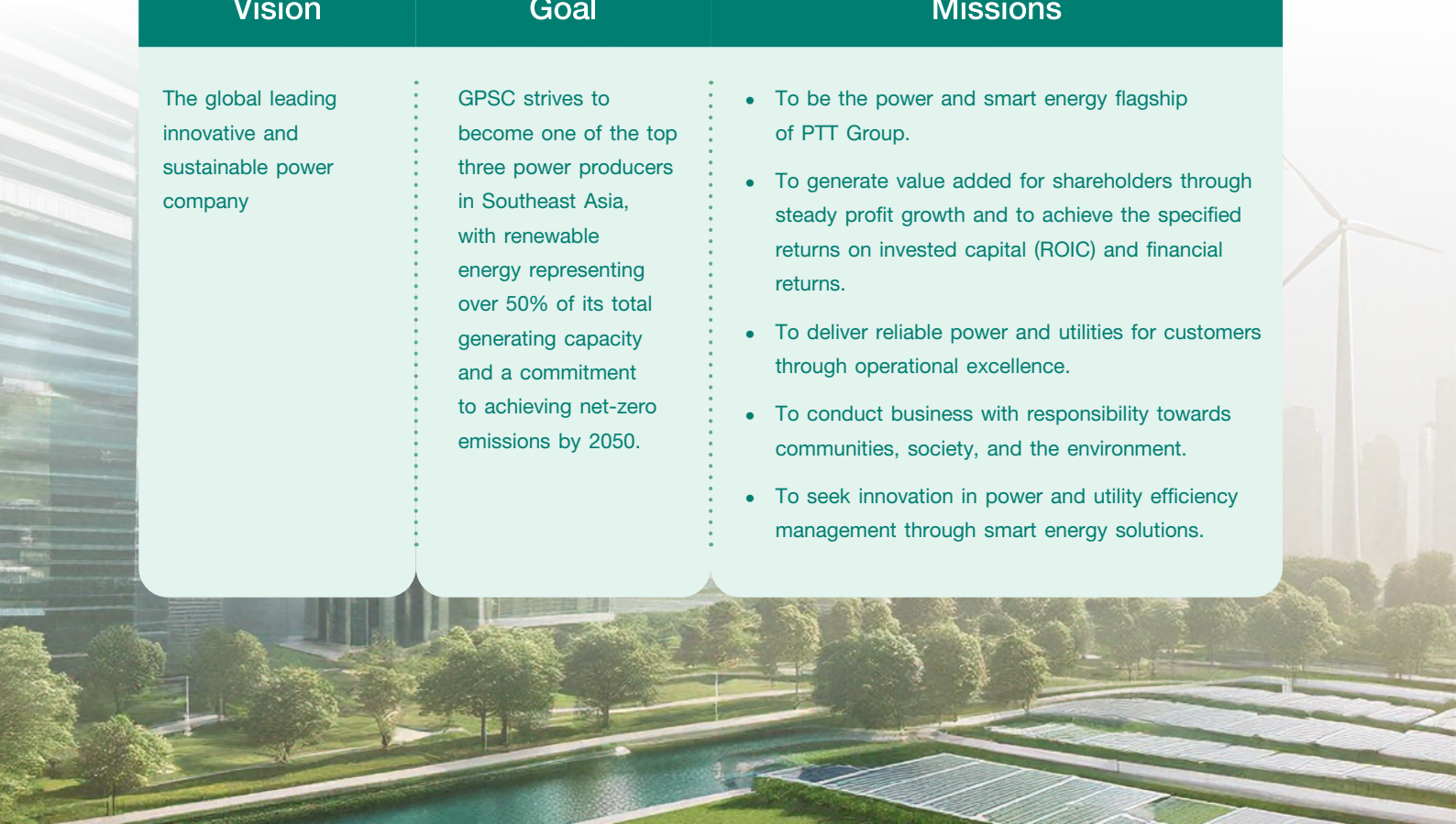
GRI 2-22

In 2025, GPSC's strategic direction (for 2025-2031) focused on elevating the Company's competitiveness in support of a clean energy transition and energy innovations. It comprised four key strategies:

- Competitiveness enhancement
- Business expansion
- Opportunities in new S-Curve businesses and decarbonization technology
- Innovative energy solution businesses

Alongside its operations in Thailand, GPSC focuses on expanding investments in target countries, such as the Republic of India and the People's Republic of China, as well as Southeast Asian countries, in support of its growth. In parallel, the Company has been working with its partners to conduct feasibilities studies and develop clean energy and low-carbon technology projects to advance decarbonization. In addition, GPSC has brought its net-zero emission target forward from 2060 to 2050, reflecting its commitment to the energy transition.

Vision	Goal	Missions
The global leading innovative and sustainable power company	GPSC strives to become one of the top three power producers in Southeast Asia, with renewable energy representing over 50% of its total generating capacity and a commitment to achieving net-zero emissions by 2050.	• To be the power and smart energy flagship of PTT Group. • To generate value added for shareholders through steady profit growth and to achieve the specified returns on invested capital (ROIC) and financial returns. • To deliver reliable power and utilities for customers through operational excellence. • To conduct business with responsibility towards communities, society, and the environment. • To seek innovation in power and utility efficiency management through smart energy solutions.



GPSC Net Zero Pathway: Decarbonization for Sustainable Future 2025

Targets for GPSC's
"Net Zero GHG Emission by 2050"

GPSC's pathway towards net-zero emissions by 2050 consists of four key components as follows:

1 Fossil Fuel Usage Reduction

Optimizing production and energy efficiency to minimize fossil fuel dependency and ensure a consistent reduction in greenhouse gas emissions.

2 Grow Renewables

Restructuring the power generation portfolio toward renewable energy to drive decarbonization and strengthen GPSC's competitiveness.

3 Develop Decarbonization Technologies

Researching and assessing the feasibility of emerging low-carbon technologies, such as small modular reactors (SMR), carbon capture and storage (CCS), and hydrogen/ammonia (H2/NH3) co-firing, to build technical expertise and identify future investment opportunities.

4 Trading and Offset

Supporting carbon sequestration and offsetting initiatives alongside direct emission reductions to balance GPSC's overall greenhouse gas footprint.

	Business Strategies	
	Competitive Enhancement Strengthening operational excellence to enhance competitiveness and prepare to become a low-carbon organization in the future.	**Business Expansion** Expanding domestic and international investments to seek growth opportunities, strengthen long-term investment portfolios, and monetize assets.
Success indicators	• Maptaphut (MTP) SAIFI (system average interruption frequency index per customer each year). • Percentage of customers satisfied with products and services. • EBITDA uplift. • GHG emissions reduction.	• New platform development. • Added value from investment portfolio management and optimization.
2025 targets	• Benchmark SAIFI ≤ 1.76 (based on PEA benchmark for the EEC area). • Percentage of customers satisfied with products and services ≥ 90%. • EBITDA uplift ≥ THB 500 million. • GHG emissions reduction of 65,000 tCO_2eq (recurring).	• New strategic partnerships. • Asset monetization.
2025 performance	• MTP SAIFI = 0. • % of customers satisfied with products and services = 98.8%. • EBITDA uplift = THB 500 million. • GHG emissions reduction = 90,757 tCO_2eq (recurring).	• GPSC signed an MOU with GCL, a new strategic partner, to explore data center business opportunities. • GPSC divested shares in AEPL to AVPL to unlock investment value and optimize portfolio management. • GPSC increased stake in RPCL from 15% to 24.375% to enhance long-term returns.
Long-term targets	• Benchmark SAIFI ≤ 1.76 • % of customers satisfied with products and services ≥ 90%. • EBITDA uplift ≥ THB 900 million by 2027. • GHG emissions reduction through energy efficiency = 1% of total emission.	• Maximizing returns on invested capital (ROIC) to create long-term value.

	Business Strategies	
	New S-Curve Businesses and Decarbonization Technology Developing and scaling businesses related to decarbonization technologies to create new business opportunities.	**Innovative Energy Solution Businesses** Expanding integrated energy solutions through Energy as a Service (EaaS) to become the partner of choice for industrial and business sectors.
Success indicators	• Partnership in technology R&D and carbon sequestration capacity enhancement.	• Solar EPC business expansion. • Private solar PPA development. • Cooling as a Service (CaaS) business development.
2025 targets	• Expand partnerships to research and develop decarbonization technology.	• innovative energy solution business expansion and project development.
2025 performance	• GPSC signed an MOU with Axens Group to conduct a feasibility study for a small-scale DMX™ carbon capture pilot project. • GPSC partnered with the Mae Fah Luang Foundation for a forestry-based carbon sequestration project covering 3,000 rai.	• Total solar EPC portfolio: 100 MW. • Total private solar PPA portfolio: 24 MW. • Total installed capacity of the Cooling as a Service (CaaS) business: 14,837 refrigeration tons (RT).
Long-term targets	• Scale decarbonization technologies to support net-zero ghg emissions targets. • Expand forestry-based carbon sequestration through reforestation and restoration to 10,000 rai by 2030.	• Expand the solar EPC portfolio to 600 MW by 2030. • Expand the private solar PPA portfolio to 45 MW by 2030. • Develop the Cooling as a Service (CaaS) business to achieve 100,000 RT by 2030.

Material Issues 2025

GRI 3-1, 3-2

GPSC recognizes that amid the accelerating global energy transition, driven by the challenges brought on by climate change, geopolitical volatility, and economic uncertainty, aligning the business direction with key material issues is strategically critical to the strengthening of the Company's competitiveness and growth in the long term.

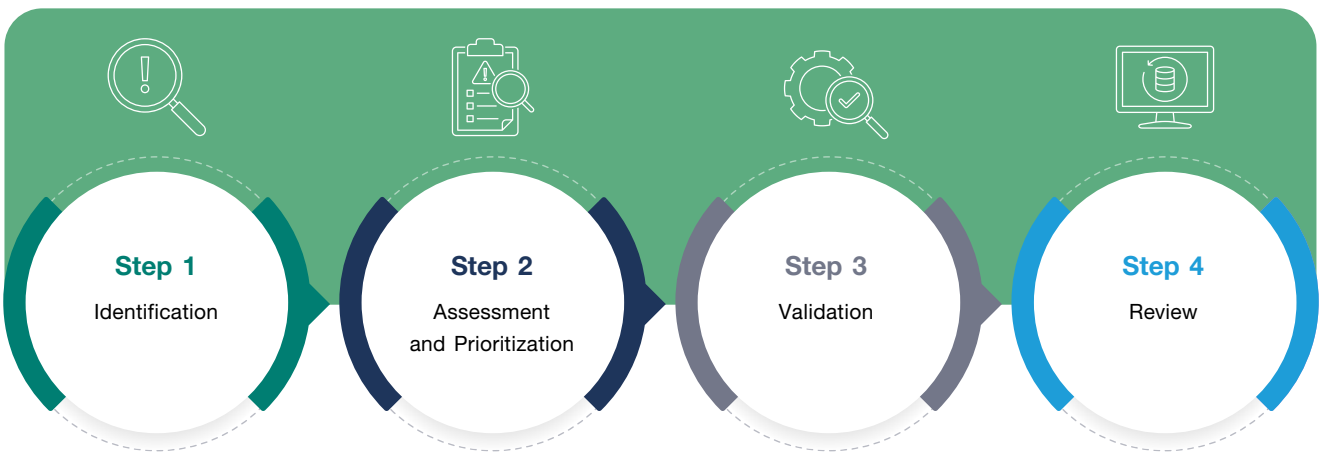
As such, GPSC places great importance on materiality assessment as a key tool for identifying and prioritizing environmental, social, and governance (ESG) issues that impact both the organization and its stakeholders. This process enables GPSC to respond effectively to stakeholder expectations while simultaneously managing risks and capturing new opportunities arising from the evolving energy landscape.

Furthermore, the outcomes of these assessments are used to inform the formulation of the Company's corporate sustainability strategies and targets across key areas, such as decarbonization, the advancement of clean energy innovation and technology, and the enhancement of organizational resilience, all of which are essential to achieving the net-zero emissions goal and creating sustainable long-term value.

GPSC conducts this materiality assessment annually, referencing international reporting frameworks, such as the Global Reporting Initiative (GRI Standards), to ensure that its disclosures are transparent, compliant with international standards, and truly reflective of the issues of highest materiality to the organization and its stakeholders.

Materiality Assessment

For the identification and prioritization of material issues affecting GPSC's business operations and its eight groups of stakeholders, both internal and external, (namely shareholders, investors, government agencies, employees, suppliers, partners, customers, and communities and society), GPSC has adopted double materiality assessment, which covers both the impacts on society and environment (external) as well as the impacts on the organization itself (both financial and non-financial). Details of the process can be found at https://www.gpscgroup.com/th/sustainability/gpsc-sustainability/materiality-assessment.



Material Issues

Key Material Issues

- Clean Energy Towards Net Zero
- Environmental Management
- Evolving Business Model
- Employee-focused Organization

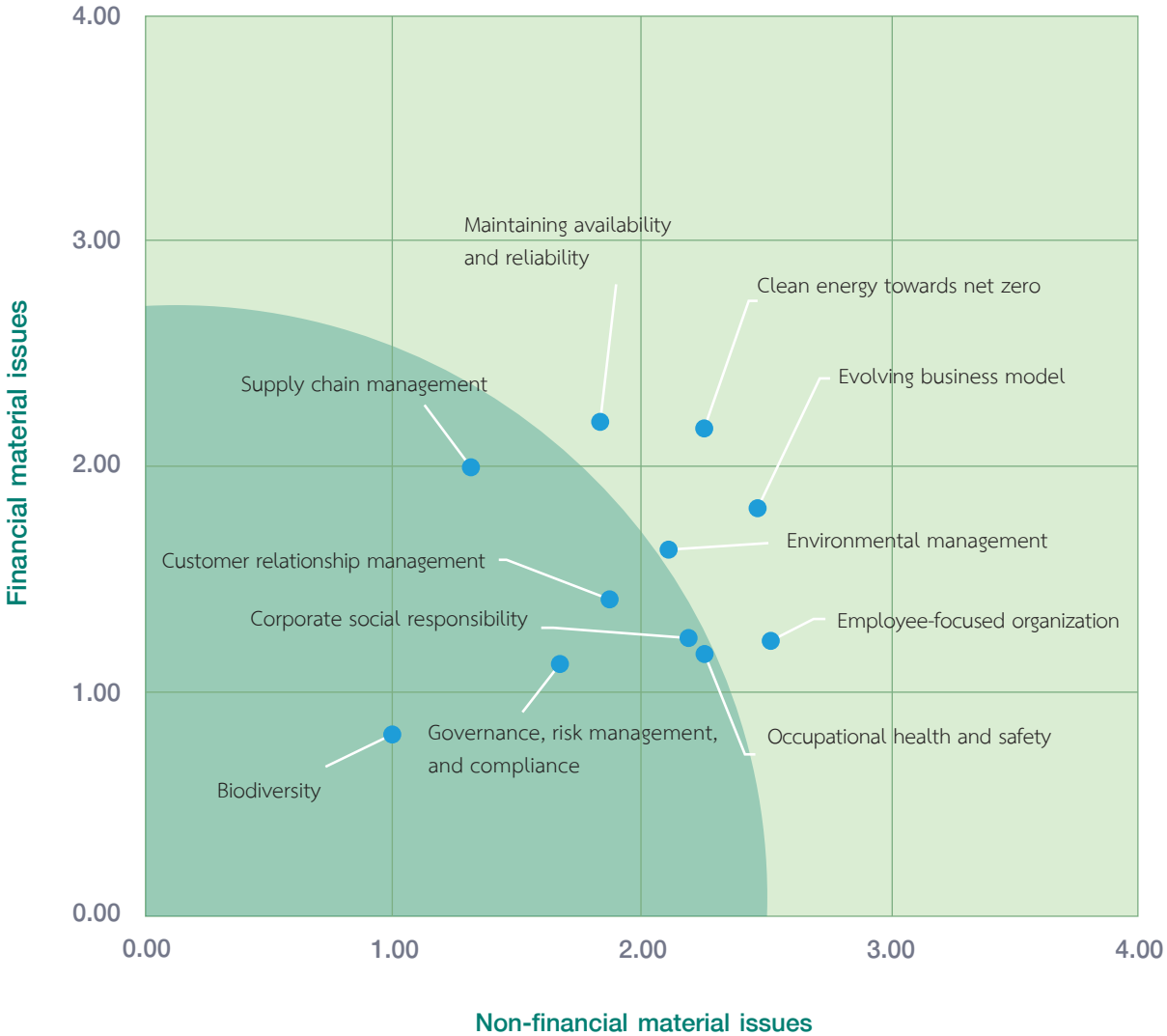
Fundamental Material Issues

- Biodiversity
- Corporate Social Responsibility
- Occupational Health and Safety
- Supply Chain Management
- Governance, Risk Management, and Compliance
- Maintaining Availability and Reliability
- Customer Relationship Management

Remarks

- **Key material issues** refer to issues that stakeholders, both internal and external to the Company, consider significant in terms of their impact, both positive and negative, across economic (corporate governance), social, and environmental dimensions. In other words, these are issues that are rated as "high" to "very high" based on the criteria of severity and likelihood of the impact on internal and external stakeholders and on GPSC's business operations. These impacts are categorized into two types:
  - o **Positive impacts:** Healthy operating results and profitability, greater business growth, quality of life enhancement, promotion of environmental quality, etc.
  - o **Negative impacts** Business losses or remediation expenses, violation of relevant laws or regulations, degradation in quality of life, environmental degradation, etc.
- **Fundamental material issues** refer to basic requirements for the company in compliance with laws, standards, and general practices, which internal and external stakeholders view as having low to moderate impacts. However, a lack of appropriate and efficient management of these issues could significantly undermine stakeholder confidence and the Company's operational continuity.

Materiality Matrix



These material issues are used to formulate the management approach and define clear goals and key performance indicators (KPIs). Further details are provided in the following sections of this report: Clean Energy Towards Net Zero (pages 030–039), Environmental Management (pages 040–050), Evolving Business Model (pages 054–060), and Employee-focused Organization (pages 064–072). Details of other material issues can be found at: [Website www.gpscgroup.com].

The material issues identified through materiality assessment are integrated into the Company's Enterprise Risk Management (ERM) framework to ensure the alignment of GPSC's business strategies and risk management plans with both stakeholder expectations and corporate objectives, as illustrated in the figure below:

Furthermore, these material issues serve as a mechanism to validate key corporate risks. The following table illustrates the correlation between GPSC's material issues and enterprise risks:

Key Material Issues	Risk Category	Correspondence to Corporate Risk
Clean energy towards net zero	Strategic risk	Climate change
Environmental management	Operational risk	Security, safety, occupational health, and environment
Evolving business model	Strategic risk	Investment and business expansion
Employee-focused Organization	Strategic risk	Organizational capability

Key Material Issues 2025

Material Issue	Stakeholder	Environmental and social impact	Financial impact	Global reporting Initiative: GRI	Sustainable Development Goals (SDGs)
Clean Energy Towards Net Zero	• Customers • Government/ public • Investors • Suppliers • Society and communities	**Positive impacts:** • GPSC's clean energy enables customers to reach their net-zero goals faster, thereby fostering trust and opportunities for business partnerships in the long term. • GPSC's reduction of Scope 3 emissions contributes to the advancement of supply chain carbon management and national net-zero targets. **Negative impacts:** • Legal constraints and industrial estate regulations can hinder the installation of clean energy systems for customers, limiting their energy management flexibility and sustainability investment opportunities.	**Opportunities:** • The development of decarbonization and clean energy solutions, such as renewable energy sales, energy storage systems (ESS), and energy efficiency services, can create new revenue streams and strategic partnerships in the long term. **Risks:** • Carbon taxes and pricing mechanisms may increase production costs for fossil fuel-based power, requiring cost management and appropriate energy strategy adjustment to meet rising investor expectations for ESG performance. Failure to define and communicate a clear and tangible net-zero pathway may undermine trust and affect the Company's access to green finance.	• Management Approach (3-1, 3-2, 3-3) • Energy (302-1, 302-3, 302-4) • Emission (305-1, 305-2, 305-3, 305-4, 305-7)	

Material Issue	Stakeholder	Environmental and social impact	Financial impact	Global reporting Initiative: GRI	Sustainable Development Goals (SDGs)
Environmental Management	• Shareholders • Investors • Government/ public • Society and communities • Suppliers	**Positive impacts:** • Water treatment and recycling in the production process reduce freshwater withdrawal from natural sources and mitigate impacts on surrounding communities. • Circular waste management reduces pollution generated and fosters community trust towards GPSC's operations. **Negative impacts:** • Air emissions, such as dust, odor, and smoke, from power plant operations can affect the health and quality of life of nearby communities. • Failure to meet effluent discharge or industrial waste management standards can disrupt local ecosystems.	**Opportunities:** • The deployment of water recycling technologies in production reduces water procurement costs and efficiently enhances resilience against droughts. • Circular waste management can lower waste disposal costs and strengthen GPSC's reputation as an operator with social and environmental responsibility. **Risks:** • Non-compliance with effluent standards may result in financial penalties, operational suspensions, or delays in securing permits for new projects.	• Strategy, Policies, and Practices (2-23, 2-24) • Management Approach (3-1, 3-2, 3-3) • Water (303-1, 303-2, 303-3, 303-4, 303-5) • Emissions (305-7) • Effluents and Waste (306-1, 306-2, 306-3, 306-4, 306-5) • Environmental Compliance (307-1)	

Material Issue	Stakeholder	Environmental and social impact	Financial impact	Global reporting Initiative: GRI	Sustainable Development Goals (SDGs)
Evolving Business Model	• Shareholders • Investors • Government/ public • Employees • Suppliers	**Positive impacts:** • Energy storage innovations reduce fossil fuel dependency and support a sustainable transition to clean energy. • The prompt adaptation to changes in global energy trends builds shareholder and investor confidence. **Negative impacts:** • The adoption of AI and new technologies may lead to employee concerns regarding job security.	**Opportunities:** • The development and application of energy storage innovations help reduce fossil fuel dependency and support the clean energy transition, which in turn mitigates long-term energy cost risks and creates new business opportunities and revenue streams. GPCS's successful adaptation to changes in the global energy industry, along with innovation expansion and the ability to transition to clean energy before its competitors and diversify revenue streams, enhances long-term value for the Company. **Risks:** • Failure to re-align investment plans with market trends could lead to a long-term loss of market share as demand for fossil fuels declines. • The utilization of outdated technology results in higher maintenance costs and reduces GPSC's long-term competitiveness.	• Management Approach (3-1, 3-2, 3-3) • Indirect Economic Impacts (203-1)	

Material Issue	Stakeholder	Environmental and social impact	Financial impact	Global reporting Initiative: GRI	Sustainable Development Goals (SDGs)
Employee-focused Organization	• Employees • Shareholders • Investors • Government/ public	**Positive impacts:** • A safe working environment and the adoption of fair labor practices improve the quality of life for employees. • Promoting diversity, equity, and inclusion (DEI) and supporting female leadership fosters an inclusive and open organizational culture. **Negative impacts:** • Excessive workloads in certain roles can negatively impact employee well-being and productivity.	**Opportunities:** • The presence of talent strengthens competitiveness and organizational adaptability to changes in the business landscape. • Effective recruitment and retention systems attract top talent and reduce recruitment and selection costs. **Risks:** • Unfair or substandard compensation creates risks of labor disputes, legal penalties, and reputational damage. • High turnover rates lead to increased costs for the recruitment and selection of new personnel.	• Management Approach (3-1, 3-2, 3-3) • Collective bargaining agreements (2-30) • Training and Education (404-1, 404-2, 404-3) • Diversity and Equal Opportunity (405-1, 405-2) • Freedom of association and collective bargaining (407-1)	

Remarks Each material issue can be considered in terms of both positive and negative impacts as well as risks and opportunities. Further details of materiality assessment and the list of GPCS's material issues can be found on GPSC's website at: https://www.gpscgroup.com/th/sustainability/gpsc-sustainability/materiality-assessment

Environment

Clean Energy Towards Net Zero

Value creation process and critical factors

- Financial Capital
- Human Capital
- Manufacturing Capital
- Social and Relationship Capital
- Intellectual Capital
- Natural Capital

Stakeholders

- Society and communities
- Government agencies and relevant organizations
- Customers
- Business partners

Key achievements in 2025

90,000 tCO_2 million kWh reduction in energy consumption compared to 2024

45 of the capacity was derived from renewables in 2024.

Business Drivers

Against a backdrop of intensifying natural disasters and the global shift toward a low-carbon economy, the energy sector is navigating intense pressure from increasingly stringent government policies and market mechanisms, such as carbon pricing and the Carbon Border Adjustment Mechanism (CBAM), which directly affect production costs and the competitiveness of business operators.

Meanwhile, industrial demand for clean energy is seeing a steady rise as more companies commit to net-zero goals, prompting power producers and service providers to pivot away from traditional power generation towards offering integrated low-carbon energy solutions, such as the phasing out of fossil fuels in favor of renewables and the adoption of low-carbon power generation technologies.

Furthermore, Thailand has elevated its nationally determined contribution (NDC 3.0), targeting a 47% reduction in net greenhouse gas (GHG) emissions by 2035 in line with the Global Stocktake in order to limit global warming to 1.5 °c further underscoring the long-term trajectory of the transition in the energy sector.

In light of this context, GPSC recognizes that the energy transition presents both risks and opportunities:

- Risks: Rising carbon costs driven by government policies, the potential for stranded assets in the future, and shifting customer demands.
- Opportunities: Growth in the renewable energy market, the development of clean energy solutions for industrial clients, and new revenue streams from energy solutions businesses.

To address these, GPSC has designated investment in clean energy and GHG-reduction technologies as a core strategy in order to mitigate regulatory risks and carbon cost risks in the long term while capturing growth opportunities and maintaining competitiveness sustainably.

Management Approach and Strategy

Strategy for Driving Forward

As part of its strategy, GPSC is committed to transitioning into a low-carbon power business, with a target to achieve net-zero emissions by 2050 by enhancing operational efficiency, expanding renewable energy investments, developing firm low-carbon power technologies, and implementing internal carbon pricing to manage climate risks and seize long-term business opportunities. To achieve these objectives, the Company has implemented the following four-pillar strategy:

1) Operational efficiency improvement: GPSC is upgrading its existing power plants to reduce fuel consumption and decrease GHG emissions per unit of electricity produced.

2) Renewable project development: GPSC is developing on-site solar energy solutions for customers and preparing infrastructure in potential sites for future third-party access (TPA). This supports the industrial sector's growing demand for clean energy and ensures the Company's preparedness for electricity market liberalization.

3) Low-carbon technology R&D: GPSC is researching and developing low-carbon technologies both in the long term and during the transition, including firm low-carbon power alternatives, such as small modular reactors (SMR), as alternatives to fossil fuel plants. In tandem, GPSC is deploying decarbonization technology in its existing plants, such as ammonia co-firing and hydrogen blending, to gradually reduce GHG emissions while maintaining grid stability during the transition.

4) Residual emissions management: To address residual emissions, GPSC utilizes carbon removal technologies and offset mechanisms, including carbon capture and storage (CCS), and nature-based solutions, such as reforestation.

Furthermore, GPSC actively fosters employee engagement through training and energy-saving campaigns to instill a corporate culture of GHG reduction.

Policy and Commitment

GPSC's Climate Change Policy applies to every unit throughout the entire value chain across all processes, from planning and design to operations and decommissioning. All operations are continuously monitored and reported on in accordance with international standards.

Climate Change Policy

Management Approach

GPSC has integrated clean energy and climate change management into its core corporate strategy and sustainability framework to ensure alignment with its long-term goals and international standards, such as the Sustainable Development Goals (SDGs), IFRS S2, and GRI Standards, with decarbonization and the circular economy as the two guiding priorities.

In support of the development of low-carbon technologies and innovations, GPSC has introduced internal carbon pricing into its investment decision making to facilitate a transition toward a low-emission portfolio. In parallel, GPSC actively engages its employees and stakeholders through training, awareness building, and energy-saving campaigns to foster a corporate culture where all parties contribute to sustainable decarbonization.

Management Approach	Description
Decarbonization and renewable capacity expansion	GPSC actively seeks to increase the proportion of renewable energy, including solar, hydro, wind, and biomass, in its energy mix as it plays a key role in decarbonization compared to fossil fuel-based power generation. GPSC's policy is to not invest further in coal-fired power plants and to continuously expand investments in renewable energy, with the goal of increasing its renewables-based capacity both in Thailand and overseas to over 50% by 2030.
Assessment of climate-related risks and opportunities	GPSC systematically identifies, assesses, and reviews climate risks and opportunities, encompassing both physical and transition risks, in accordance with IFRS S2. This assessment is integrated into the Company's enterprise risk management (ERM). The assessment is conducted across the value chain from suppliers (upstream) to customers (downstream), based on: • Scientific evidence indicating physical changes according to the Intergovernmental Panel on Climate Change (IPCC). • Reports on impacts on the international power industry. • Domestic and international climate policy trends. • Climate-related outlooks and expectations among investors and stakeholders. Findings are used to inform strategy formulation, investment planning, and business decisions to ensure the effective management of risks and opportunities arising from the energy transition.

Management Approach	Description
Scenario and time horizon analysis	GPSC has conducted a climate scenario analysis to assess the resilience of its strategies under different climate change scenarios under the Shared Socioeconomic Pathways (SSPs) as projected by the IPCC, namely SSP1-2.6 (low emission scenario) and SSP5-8.5 (high emission scenario), for the assessment of physical risks. For transition risks, the hypotheses based on the IEA's Stated Policies Scenario (STEPS) and the net zero emissions by 2050 (NZE2050) have been employed in the assessment of impacts of policies and the transition to a low-carbon economy. In addition, GPSC has adopted Thailand's NDCs as a reference case to ensure that the analysis is aligned with national policies. The analysis spans medium-term (2030) and long-term (2050) horizons and takes into account both operational and financial impacts to support strategic decisions and investments in the long term.

• Management Process

Management Process	Description
Fossil fuel usage reduction	To minimize GHG emissions from power production, GPSC employs three primary approaches: 1) Operational efficiency improvement and retrofitting fossil-fuel plants. 2) Internal renewable energy consumption in place of fossil fuels. 3) Decommissioning fossil-fuel assets based on contract terms and asset lifespans to systematically transition to low-carbon power generation systems.
Renewables expansion	GPSC seeks to expand its renewables-based capacities through three primary approaches: 1) Developing and installing on-site solar rooftops to support customers' efforts to utilize clean energy and decarbonize their value chain, and to capture opportunities in the green energy business. 2) Investing in the development of new renewable energy projects both in Thailand and overseas, focusing on solar and wind energy, which are the highest-potential energy sources at present, to accelerate the energy transition and align the portfolio with decarbonization efforts in the long term. 3) Preparing and developing high-potential sites in preparation for the intaking of renewable energy through third-party access (TPA) to support power market liberalization and enhance flexibility in supplying clean energy to customers.

Management Process	Description
Decarbonization technology R&D	GPSC has conducted R&D on decarbonization technologies, from technical and economic feasibility studies to pilot projects and commercialization, to promote the decarbonization of its power production, utilizing two main approaches: 1) Firm low-carbon power: GPSC has conducted studies and assessed the potential of firm low-carbon power technologies, such as small modular reactors (SMR), in collaboration with its partners. The analysis encompasses technical and regulatory feasibility, the cost effectiveness of investments, and impacts on the energy system to ensure project development preparedness in the long term and enhance the stability of the power system when renewables account for a higher proportion of the portfolio. 2) Abatement technologies: GPSC has conducted studies in collaboration with PTT Group and partners on the application of abatement technologies to existing power plants, including: • Carbon capture, utilization and storage (CCUS) in natural gas and coal-fired power plants. • Hydrogen infrastructure, such as ammonia co-firing and hydrogen blending.
Trading and Offset Management	GPSC utilizes carbon trading and offsetting to manage residual emissions. This includes the selection of suitable instruments, the quality assessment of projects, and continuous monitoring. The three primary approaches are as follows: 1) Carbon sink through nature-based solutions, such as reforestation projects. 2) Applying for energy attribute certificates (EACs) and utilizing carbon market instruments. • Renewable energy certificates (RECs): For the management of Scope 2 emissions based on a market-based approach. • Carbon credit: For offsetting residual emissions, with projects selected in line with international standards. 3) Utilizing internal carbon pricing to assess project risks and cost-effectiveness, and integrating carbon costs into investment analysis for GHG emissions-related projects and decarbonization projects.

Risks and Opportunities

To complete the transition toward a low-carbon energy business and achieve net-zero emissions, GPSC has systematically identified and assessed risks and opportunities related to its operations and business model and integrated climate-related risk and opportunity management into its enterprise risk management (ERM) process to prepare for climate uncertainties while capitalizing on opportunities arising from the energy transition.

This assessment covers both physical risks and transition risks, as well as business opportunities arising from policies, regulations, technology, and stakeholder expectations under the scenario analysis framework.

The results are utilized to inform the formulation of mitigation measures, investment planning, and strategic decision-making to enhance organizational resilience and promote sustainable growth.

Driver Category	Risks and Opportunities	Mitigation Measure
Physical Risks		
Extreme weather 	**Risks:** Damage to infrastructure and machinery, production and logistics disruptions, and employee safety hazards. **Opportunities:** Climate-resilient infrastructure development and stakeholder confidence enhancement.	• Formulation and review of the emergency response plan (ERP) and the business continuity plan (BCP). • Installation of surge protection systems and provision of employee training.
Flooding 	**Risks:** Asset damage, business disruptions, and impacts on supply chain. **Opportunities:** Development of water management infrastructure and enhancement of trust in GPSC's business continuity.	• Design of site-specific flood protection systems. • Formulation and review of the emergency response plan (ERP) and the business continuity plan (BCP). • Supply chain risk assessments.
Drought 	**Risks:** : Water shortages for production, increased operating costs, and potential conflicts with communities. **Opportunities:** Development of water recycling technologies, desalination, and new business opportunities.	• Water resource management planning and water efficiency initiatives. • Installation of desalination systems and construction of water reservoirs.

Driver Category	Risks and Opportunities	Mitigation Measure
Physical Risks		
Rising average global temperatures 	**Risks:** : Reduced production and cooling efficiency, and potential water shortages without adequate management. **Opportunities:** Development of efficiency optimization technologies and investment diversification.	• Upgrading infrastructure and machinery. • Installation of temperature reduction systems and investment diversification. • Diversifying the investment portfolio into low-risk areas.
Transition Risks		
Stakeholder expectations 	**Risks:** Decline in investor confidence and negative impacts on corporate image. **Opportunities:** Building trust through ESG and net-zero actions.	• Establishing and executing GHG reduction targets. • Increasing the proportion of renewable energy. • Transparent disclosure and communication of progress.
Technology disruptions 	**Risks:** Delayed adaptation and a loss of competitiveness. **Opportunities:** Development of innovative energy products and service models.	• Investment in research and development. • Development of pilot projects and scaling up the roadmap. • Establishing strategic partnerships.
Customer preference shifts 	**Risks:** Impact of rising demand for clean energy on revenue from fossil-fuel-based power. **Opportunities:** Enhancing competitiveness through clean energy.	• Expanding investment in renewable energy. • Developing new energy products and services.
Policies and regulations 	**Risks:** Increased costs from carbon measures and legal compliance. **Opportunities:** Incentives for investing in low-carbon technologies.	• Utilizing internal carbon pricing (ICP) for project evaluations. • Increasing the proportion of renewable energy production. • Applying CCUS technology and alternative fuels, such as hydrogen and ammonia co-firing.

Performance

Goal	Target	2025 Progress Against Target
Net-zero GHG emissions	Achieve net-zero GHG emissions by 2050	Total GHG emissions for 2025: **13 million** t CO_2e, consisting of: • Scope 1: 11,784,370 t CO_2e • Scope 2: 47,375 t CO_2e • Scope 3: 1,235,595 t CO_2e
Enterprise carbon intensity reduction	Carbon intensity reduction • 35% by 2030	Carbon intensity reduction: **10%**
Coal phase-out	No further investment in coal-related businesses	No further investment in coal-related businesses
Energy portfolio transition	Increased renewables-based capacity	Increased renewables-based capacity
Enhancement of internal carbon pricing capabilities	Reduce GPSC's GHG emissions and utilize ICP to support investment decisions aimed at increasing the renewable energy share.	GPSC developed skills and expertise in internal carbon pricing, which supported GHG reduction planning and informed investment decisions regarding renewable energy.
Investment decisions regarding the energy transition	Investment decisions and operation decisions	Total investment value related to production process improvements and energy efficiency optimization.

Aspirations and Main Challenges

Aspirations

GPSC is committed to becoming a leading producer and supplier of clean, reliable, and sustainable energy while also creating value for all stakeholders across all dimensions. To this end, GPSC aspires:

- To achieve net-zero emissions by 2050.
- To support the transition toward a circular economy and meet the evolving global demand for clean energy.
- To invest in low-carbon technology, increase the proportion of renewable energy, develop carbon capture and storage infrastructure, and consistently foster a corporate culture that supports GHG reduction.

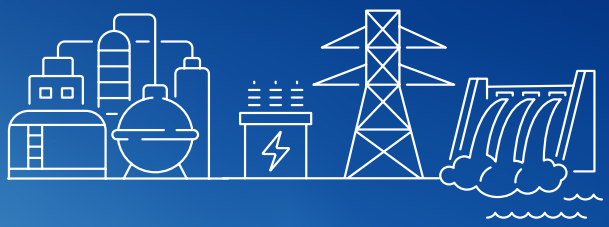
Main Challenges

To achieve these goals, GPSC must navigate several challenges:

- Technological volatility and fluctuations in investment costs for renewable energy and carbon capture and storage (CCS) infrastructure.
- Adaptation to increasingly stringent international regulations and standards.
- Fostering personnel readiness and stakeholder engagement.
- Uncertainties regarding carbon markets and future carbon pricing mechanisms.
- Maintaining energy security alongside the pursuit of GHG reduction.

To prepare for these challenges and sustainably realize its long-term net-zero goals, GPSC focuses on continuously developing innovation, building strategic partnerships, and enhancing the capabilities of its personnel.

Key Projects in 2025



Key Decarbonization Project in 2025

Project Name

Deaerator steam usage reduction and heat recovery steam generator (HRSG) optimization

Description

This project aimed to improve the energy efficiency of the HRSG system by optimizing boiler feedwater temperatures to enhance heat transfer within the heat exchanger. This process allows for greater heat recovery from flue gas, leading to a lower stack temperature and a reduction in the steam required for the deaerator.

Outcomes and benefits (quantitative)
Benefits to the Company

- Energy cost savings: approximately 10 million baht/year.
- GHG emission reduction: approximately 1,000 tCO_2/year.

Benefits to stakeholders

- Cleaner electricity and steam for customers.
- Lower costs and greater profitability for shareholders.
- Direct support for net-zero targets and sustainable business practices.

Key Renewable Energy Expansion Project in 2025

Project Name

Renewable energy portfolio expansion via Avaada Energy Private Limited (AEPL) in India

Description

GPSC expanded its renewable energy investments in India through AEPL, focusing on increasing solar and wind power generation capacity to strengthen GPSC's overseas portfolio and support the transition toward a low-carbon energy business in the long term.

Outcomes and benefits (quantitative)
Benefits to the Company

- Renewable energy capacity under AEPL increased from 20,399 MW to 21,717 MW.
- Profit share from AEPL rose from 64 million baht in 2024 to 328 million baht in 2025.

Benefits to stakeholders

- The project contributed to the increase in GPSC's clean energy portfolio and the reduction of GHG emissions, while also generating value for shareholders through overseas business expansion.

Environmental Management

Value creation process and critical factors

- Financial capital
- Human capital
- Manufacturing capital
- Social and relationship capital
- Intellectual capital
- Natural capital

Stakeholders

- Society and communities
- Government agencies and relevant organizations
- Customers
- Business partners

Key achievements in 2025

The GEN Phase 2 – WTP6, a water recycling optimization through backwash water recirculation, generates OPEX savings of **2.38** million baht/year.

Zero fines incurred from environmental impacts in 2025.

Low NO_x burners were adopted to reduce NOx generation in the combustion chamber of gas turbines and pulverized coal-fired boilers.

Business Drivers

Effective environmental management is a key business driver for the energy industry as it plays a vital role in supporting the transition to clean energy systems, enhances operational efficiency, and ensures business continuity amidst an increasingly rapid and complex shift in the energy landscape. Furthermore, responsible environmental management is essential for maintaining legal and regulatory compliance and strengthening the operational continuity of GPSC's power plants and various business units.

To meet stakeholder expectations with regard to the environment, GPSC utilizes a comprehensive management system encompassing all relevant dimensions across the entire value chain, from pollution control, waste management, responsible water usage, all the way to biodiversity protection. These efforts are aimed at mitigating operational risks and financial impacts while also fostering long-term trust with communities and society.

This robust environmental management system also enables GPSC to respond to both global and national sustainability trends. Given these contexts and expectations, a holistic approach is essential for the Company to maintain alignment with the targets and drivers catalyzing operational transformation towards long-term environmental impact minimization across the energy industry. Moreover, a strong management system facilitates access to financing for sustainable business development, which serves as a key mechanism for enhancing operational efficiency and strengthening the Company's competitiveness in the energy market.

Ultimately, environmental management is not only a matter of legal and regulatory compliance but also a core corporate strategy that drives innovation and the expansion of GPSC's renewable energy portfolio, enabling the Company to meet market demands, bolster stakeholder confidence, minimize environmental impacts, and create positive environmental value.

Management Strategy and Approach

• Strategy for Driving Forward

Committed to driving environmental management with responsibility and efficiency, GPSC has formulated its environmental roadmap and strategies to align with the corporate strategy "Innovative & Sustainable Power for All," and has integrated into the Sustainability Management Framework the principles of energy transition, focusing on decarbonization, decentralization, and digitalization to enhance the production and delivery of eco-friendly energy. In addition, the Company actively promotes resource efficiency through the tangible implementation of the principles of circular economy.

• Policy and Commitment

GPSC has established a Quality, Security, Safety, Occupational Health, and Environment (QHSE) Policy to ensure that environmental management is conducted under clear frameworks and guidelines. GPSC's operations are in line with PTT Group's Security, Safety, Occupational Health, and Environment (SSHE) Management Standards, which adhere to international management practices.

GPSC Group Quality, Security, Safety, Occupational Health and Environment Policy

• Management Approaches

GPSC recognizes the significance of environmental management as a critical factor for business sustainability and stakeholder trust. As such, environmental governance is integrated into every level of operations, focusing on minimizing environmental impacts, optimizing resource efficiency, ensuring full legal and regulatory compliance, and supporting the transition toward a clean and sustainable energy system.

To ensure the effectiveness and comprehensiveness of its environmental management system, GPSC operates under a framework that covers the following key areas: energy management, waste management, water management, and air quality management. The Company also transparently discloses its management practices in each area to ensure that its operations meet international standards, align with long-term societal expectations, and remain consistent with PTT Group's Quality, Safety, Occupational Health, and Environment Policy.

Environmental Issue	Management Approach
Waste management	GPSC is dedicated to minimizing waste generated from its production processes and operations. As efficient waste management is an indicator of operational efficiency, environmental impact reduction, and long-term cost savings, GPSC has implemented the 3Rs (Reduce, Reuse, Recycle) to prevent and reduce waste at the source and has been consistently pursuing its zero-waste to landfill goal since 2019. Under this approach, GPSC has established systematic waste management procedures, encompassing collection, sorting, transportation, storage, and disposal of specialized waste such as solar panels. In tandem, the Company regularly monitors both the power plants and waste disposal service providers to prevent illegal treatment and disposal. In addition, GPSC performs routine audits on waste disposal contractors to ensure they hold valid licenses under relevant laws, such as the Factory Act and the Hazardous Substance Act. Waste disposal volumes are also reported annually. Furthermore, GPSC educates its counterparties and contractors on waste management through the industrial waste management process at each power plant, where all contractors are required to present the correct permits before transporting or disposing of any waste from the site.

Environmental Issue	Management Approach
Water Management	As power generation and cooling systems are water-intensive, GPSC attaches great priority to water efficiency and holistic management and has thus adopted the 3Rs to reduce intake at the source and increase water reuse, such as by recycling cooling water and boiler condensate. In addition, GPSC ensures that all effluents meet or exceed legal quality standards before being safely released into the environment. To prepare for water risks, GPSC collaborates with the PTT Group water management team, government agencies, and industrial estate operators to monitor water situations and analyze risks, such as drought or areas with high water stress, while also regularly developing water management plans and emergency response measures. Additionally, the Company tracks grievances and stakeholder satisfaction and works closely with local water users to prevent conflicts over water consumption. Furthermore, GPSC keeps track of changes in water-related legislation, such as the Water Resources Act, to ensure its water usage and discharge remain compliant, thereby reducing operational risks and cost impacts. Its water consumption and discharge quality are also transparently reported to build trust with communities and regulators.
Air Quality Management	Prioritizing controlling and reducing air emissions from production, GPSC utilizes high-efficiency technologies and continuously monitors air quality to ensure compliance with EIA and EHIA requirements as well as relevant laws and international standards. The core focus is the systematic and continuous reduction of nitrogen oxides (NO_x), sulfur oxides (SO_x), and total suspended particulate (TSP). GPSC employs advanced pollution control technologies, including low-NO_x burners for boilers and gas turbines, the use of high-quality low-sulfur coal, and limestone injection in circulating fluidized bed (CFB) boilers, and seawater flue gas desulfurization (FGD) systems for pulverized coal-fired boilers, along with bag filters for dust capture and systems for removing impurities like mercury, which keep air emissions at a safe level. In addition, the Company has installed continuous emission monitoring systems (CEMs) at stacks and a predictive online monitoring system (POMS) to report air quality data in real time to relevant authorities. GPSC also engages independent external agencies to conduct air quality measurements every six months and maintains green buffer zones around its power plants to help reduce the dispersion of emissions into surrounding communities.

• Management Process

Environmental Issue	Management Approach
Waste management	To ensure the effectiveness of its waste management practices, GPSC has established a comprehensive 8-step management process: 1. Waste management team and role assignment 2. Initial waste type and volume assessment 3. Development of waste reduction policies and measures based on the 3Rs 4. Defining disposal contractor qualifications and criteria 5. Setting indicators for reducing waste and increasing recycling 6. Execution of waste management plans across operations 7. Monitoring assessment results and reporting annual waste management performance 8. Continuous process review and improvement 
Water Management	To ensure water management efficiency and the ability to respond to water-related risks that may affect operations, GPSC has developed a systematic procedure in accordance with its water management strategy, encompassing every step of the process, from water situation assessments and efficient water consumption to effluent quality control, with the performance regularly monitored and improved through the following eight steps: 1. Water management team and role assignment 2. Initial water demand and situation assessment 3. Development of water efficiency policies and measures based on the 3Rs 4. Defining regulations and standards for water sources, usage, and treatment systems to ensure compliance with relevant laws and standards 5. Setting water management targets, guidelines, and action plans to enhance water efficiency 6. Execution of water management plans 7. Regular water management performance monitoring and reporting 8. Continuous process review and improvement 
Air Quality Management	To control and minimize impacts from air emissions generated in its power production, GPSC has established a systematic air quality management process, which involves emission source identification, the adoption of advanced abatement technologies, rigorous measurement and monitoring, and the continuous review and improvement of measures. The goal is to ensure that pollutants, including nitrogen oxides (NO_x), sulfur dioxide (SO_x), and particulate matter (PM), remain within safe levels and fully compliant with all legal and international standards. This process is carried out through the following eight steps: 1. Role assignment for corporate-level and site-level units related to air emission control 2. Initial emission source and volume assessment 3. Development of EIA/EHIA-compliant air emission control measures and technologies 4. Installation and deployment of legally compliant and standard-compliant air emission measurement systems 5. Setting annual air emission reduction targets and air quality management plans 6. Execution of air emission control and reduction plans 7. Regular air quality management performance monitoring and reporting 8. Continuous process review and improvement 

• Risks and Opportunities

GPSC prioritizes the systematic identification, assessment, and management of environmental risks and opportunities. To this end, the Company has integrated environmental issues into its enterprise risk management (ERM) framework to ensure its ability to effectively respond to the evolving energy landscape, shifting regulations, and stakeholder expectations.

Key environmental risks include emissions, waste management, water usage, climate change, and compliance with relevant laws and standards, all of which can impact operational continuity, business costs, and stakeholder trust. In parallel, the Company has identified opportunities to enhance resource efficiency and drive environmental innovation. To address these risks, GPSC has established appropriate control and mitigation measures, while also regularly monitoring and reviewing performance to support sustainable growth in the long term.

Driver Category	Risk and Opportunities	Mitigation Measure
Regulatory and Compliance	**Risks** • More stringent environmental laws and regulations may increase compliance burdens and operational costs. **Opportunities** • Strict adherence to regulations builds trust with regulators, investors, and financial institutions.	• Continuous legal monitoring and environmental management system upgrades: Monitor domestic and international environmental legislation while adjusting management systems to align with global standards, such as ISO 14001. • Integration of regulations and environmental factors into strategic decision making: Use legal and environmental risk assessment results to inform strategic planning, investment, and project development, such as in driving the S2: Scale-up Green Energy strategy. • Strengthening transparency and personnel capabilities: Improve reporting and disclosures to align with relevant frameworks, such as GRI and IFRS S1/S2, alongside personnel capability development. • Leveraging regulatory compliance for business opportunities: Use legal compliance performance to support access to sustainable finance and enhance cooperation between the Company, regulators, and partners.
Resource Scarcity	**Risks** • Shortages of water and critical resources may impact the continuity and efficiency of power plant operations. **Opportunities** • Efficient resource management mitigates risk and enhances operational stability. • Investing in water-saving and water recycling technologies helps reduce long-term costs.	• Development of efficient and sustainable resource management systems: Establish management plans for critical resources, particularly water and raw materials for power production, to cope with shortages and minimize operational disruption risks. • Investment in resource efficiency optimization technology: Promote the use of technology for water saving, water recycling, and production process optimization to reduce external resource dependency and control long-term costs.

Driver Category	Risk and Opportunities	Mitigation Measure
		• Integration of resource risk management into strategic planning: Use resource risk assessment results to inform investment planning, project development, and site selection to strengthen operational stability.
Reputational and Social License	**Risks** • Environmental impacts from power plant operations (such as pollution, noise, odor, waste, and resource usage) that may cause concern among communities and stakeholders. **Opportunities** • Transparent environmental management and consistent community engagement strengthen trust and relationships.	• Communicate and disclose environmental data transparently, and listen to community concerns. • Integrate social and environmental impact assessment results into strategic decision making related to the corporate image, project planning, and investment expansion to maintain the social license to operate.

Performance

GPSC continuously monitors and assesses its environmental performance using indicators aligned with international standards and legal requirements to capture its progress in resource management, pollution control, and the mitigation of environmental impacts from business operations.

The Company's 2025 performance demonstrates its tangible efforts in waste reduction, water efficiency optimization, and air emission control. The performance is benchmarked against clearly defined short-term and long-term environmental targets, which serve as a framework for driving operations and investments that align with the trajectory of the energy transition and stakeholder expectations.

GSPC remains committed to developing its systems for environmental data collection, analysis, and disclosure to ensure transparency and accountability, support strategic decision-making, and elevate its sustainability reporting.

Performance

	Annual Targets	2025 Progress Against Target
Non-Hazardous waste	Non-hazardous waste volume: **220,103** tons	**204,621** tons
Management of reused/recycled waste	Waste reused/ recycled: **147,250** tons	**199,888** tons
Wastewater management	Wastewater discharged: **1,861,218** million m^3	**1,786,790** million m^3
Net freshwater consumption management	Net freshwater consumption: **27,754** million m^3	**26,414** million m^3
Sulfur oxide (SO_x) management	Sulfur oxide (SO_x) emissions: **3,271** tons	**3,520** tons
Nitrogen oxide (NO_x) management	Nitrogen oxide (NO_x) emissions: **7,646** tons	**9,509** tons

Aspiration and Main Challenges

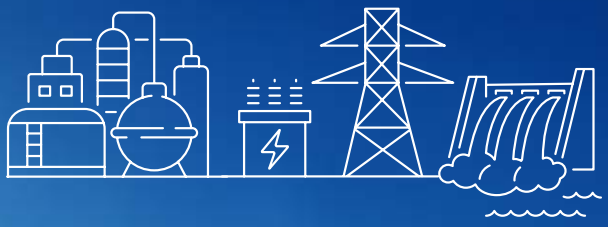
Aspiration

- To elevate GPSC's environmental management to best-in-class international standards by leveraging technology and innovation as key drivers to optimize resource efficiency, increase renewable energy consumption, minimize environmental impacts, and support investment decisions in low-carbon energy businesses.
- To continuously improve the efficiency of resource usage (energy, water, and materials) while mitigating environmental impacts across all dimensions to bolster the security of energy systems, meet stakeholder expectations, and drive sustainable corporate growth.

Main Challenges

- Natural resource volatility and constraints, such as droughts and water scarcity, which directly impact the continuity of power generation and community trust.
- Increasingly stringent domestic and international air emission and waste standards as well as societal expectations for environmental quality, which require significant investment in high-efficiency technology and control systems.
- The transition from fossil fuels to renewable energy, which requires the balancing of power system reliability, energy costs, and environmental impacts.
- The necessity of fostering collaboration with government agencies, local water users, communities, and business partners to ensure balanced resource management and address the increasingly complex environmental impacts of climate change.

Key Projects in 2025



Key Waste Management Project in 2025

Project Name

Zero Waste Village (Ban Phai Community, Rayong) and High-Heating Value Waste Buyback Project (11.85 tCO_2e/year)

Description

This initiative seeks to reduce the volume of non-recyclable plastic waste and promote waste upcycling into value-added products that generate sustainable income for the community.

The community participated in creating shared value by upcycling waste into components of GPSC's 2026 New Year gifts as a complimentary contribution, reflecting the strong partnership between the organization and the community in driving a sustainable society.

Outcomes and benefits (quantitative)

Benefits to the Company

- Reduction in the volume of waste requiring disposal; and economic value for the community, with a total income increase of 2,630,566 baht/year generated for the community.

Benefits to stakeholders

- Revenue from the promotion and support of community enterprises totaling 2,073,834 baht/year

Key Water Management Project in 2025

Project Name

WTP6 Water Recycle Optimization

Description

This project enhanced water resource efficiency and reduced operational costs by upgrading the piping system of the WTP6 water production, allowing the system to recover backwash and cleaning water for reuse within the water production systems of TCC1 and TCC2.

Outcomes and benefits (quantitative)

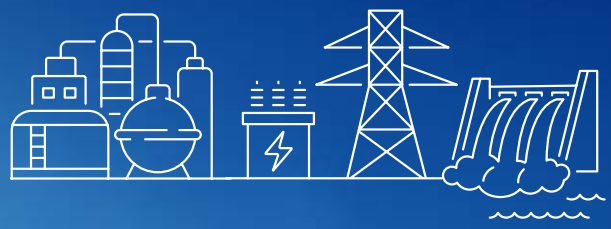
Benefits to the Company

- Water retrieval of approximately 580 m^3/day
- Significant reduction in raw water consumption and wastewater volume
- Net savings of approximately 2.38 million baht/year

Benefits to stakeholders

- Surrounding communities benefitted from reduced raw water usage and lower wastewater discharge into the environment, which relieved pressure on natural water sources and promoted resource sustainability in the long term.

Key Projects in 2025



Key Air Quality Management Project in 2025

GPSC EBITDA Uplift Project Cluster

Description

The project cluster focuses on enhancing operational and resource efficiency within the power generation process, particularly through fuel efficiency optimization and machinery operation improvements, such as adjusting machine operation schedules and testing equipment under real production conditions, which reduce fossil fuel consumption and greenhouse gas (GHG) emissions. Additionally, the optimization of combustion systems and operations has indirectly reduced the emission intensity of nitrogen oxides (NOx), sulfur oxides (SOx), and particulate matter (PM) per unit of production. This project cluster reflects an integrated approach to operational eco-efficiency and supports the continuous improvement of air quality in surrounding areas.

Outcomes and benefits (quantitative) Benefits to the Company

- Reduction of fossil fuel consumption through operational optimization, leading to lower GHG emissions and air pollution intensity per unit of production.
- Lower energy and fuel costs, and improved production efficiency.
- Mitigation of environmental compliance risks in the long term.
- Enhanced energy efficiency, directly linked to the reduction of NOx, SOx, and particulate matter (PM) from the combustion process.

Benefits to stakeholders

- Neighboring communities benefit from the downward trend in air emissions, which contributes to better local air quality.
- The project cluster supports government agencies and regulatory bodies' pollution control and environmental impact mitigation efforts.

Economics

Evolving Business Model

Value creation process and critical factors

- Financial capital
- Human capital
- Manufacturing capital
- Intellectual capital

Stakeholders

- Government agencies and relevant organizations
- Customers
- Suppliers
- Business partners
- Partners
- Shareholders
- Employees

Key achievements in 2025

- Energy investments.
- Research and development of innovation and energy projects.
- Number of new products and business models.

Business Driver

The current transition of the energy system is driven by structural changes in both international and domestic energy markets. Rapidly evolving technology and heightened expectations regarding sustainability are increasingly pushing energy business models away from centralization toward decentralization, as well as decarbonization capability enhancement and the use of digitalization as a primary mechanism for management and value creation. Within this context, GPSC is actively developing and evaluating future-ready energy business models that integrate innovation, technology, and sustainability. These efforts are aimed at strengthening its competitiveness and supporting growth by creating new revenue streams from clean energy and high-value energy services, reducing financial impacts, optimizing operational efficiency through digital systems and automation, and mitigating risks from energy market volatility and long-term reliance on fossil fuels.

Based on studies on energy market trends across various regions, it is found that several types of energy technology have the potential for application to the Thai context. These include the expansion of renewable energy, energy storage systems, hydrogen energy, and nuclear power, all of which represent vital opportunities to strengthen GPSC's competitiveness and drive long-term growth.

According to the Global Energy Review 2025 and Global Hydrogen Review 2025 , international energy markets are seeing significant expansion. Between 2023 and 2024, the renewable energy market grew by approximately 25%, the nuclear energy market by 33%, the electric vehicle (EV) market by 25%, and the hydrogen market by 50%. This surge reflects the substantial market expansion in clean energy and related technologies, particularly the electrification of the transportation and industrial sectors, which is a key factor in driving the energy industry's transition and creating opportunities for GPSC to develop new business models and future investments.

Meanwhile, consumers are shifting in behavior from traditional consumption to becoming prosumers (both producers and consumers), aligning with the concept of decentralized power generation and the adoption of digital platforms for energy management (digitalization). This has opened up opportunities for new energy business models, such as smart energy solutions, energy platforms, and integrated energy services.

Additionally, the advancement of digital technology, energy innovation, and automation has enhanced operational efficiency, reduced work redundancy, and increased the capacity for collecting, analyzing, and utilizing insights in support of new business opportunities and long-term earnings growth.

Management Strategy and Approach

• Strategy for Driving Forward

To drive sustainable business growth, GPSC has established four main strategies: Competitiveness Enhancement, Business Expansion, New S-Curve Businesses and Decarbonization Technology, and Innovative Energy Solution Businesses. These strategies align not only with the organization's goal of achieving efficient growth and continuous business capability enhancement, but also with trends in the transition of innovations in the energy industry and the Company's business value chain.

• Policy and Commitment

GPSC strives to develop energy business models that align with the ongoing transition of the global energy industry by integrating trends in decentralized power generation, decarbonization, and digitalization into policymaking and business decisions to strengthen its competitiveness and the sustainability of its earnings in the long term.

GPSC strives to achieve a balance between economic growth, environmental stewardship, and social responsibility through the development of energy solutions and services that meet evolving market demands and its commitment to the principles of good corporate governance, transparency, and comprehensive risk management.

• Management Approach

GPSC's management approach for innovation and energy business development is based on the 4D1E framework: Decentralization, Decarbonization, Digitalization, Deregulation, and Electrification. This framework reflects energy transition trends at both national and international levels and aligns with GPSC's core strategies, particularly Business Expansion, New S-Curve Businesses and Decarbonization Technology, and Innovative Energy Solution Businesses, all of which are aimed at elevating the development of and access to clean and renewable energy in parallel to the provision of comprehensive energy services.

This framework is further translated into practice through the 3D1C framework, which focuses on the integration of technology, infrastructure, and digital platforms.

• Management Process

Under this management framework, GPSC has also applied the 3D1C model (Decentralization, Decarbonization, Digitalization, and Convergence) as an operational framework for integrating technology, infrastructure systems, and digital platforms. This leads to the development of high-efficiency, eco-friendly energy products and services that can meet a diverse range of market demands, such as decentralized power generation, district cooling systems, and integrated energy management systems.

• Risks and Opportunities

Amid the transition of the energy industry and changes in global and domestic environmental factors, GPSC has systematically identified and assessed risks and opportunities related to its business models and operations to ensure its readiness to handle challenges and capitalize on long-term business opportunities.

This assessment covers both risks and opportunities arising from technological factors, market structures, regulations, stakeholder expectations, energy transition trends, and climate change-related physical impacts that may affect the Company's assets, infrastructure, and business continuity. The identified physical and transition risks are then used to inform the determination of management approaches, mitigation measures, and strategic decisions to enhance competitiveness, business resilience, and sustainable future growth.

Driver Category	Risk and Opportunities	Mitigation Measure
Market and demand shift risks	**Risks** • Increased demand for clean energy from industrial customers • Electricity market liberalization and increased competition **Opportunities** • Development of Energy-as-a-Service business models • Opportunity to expand into new markets and offer new products, such as the carbon market and RECs.	• Pivot strategy toward customer-centric service. • Diversify the business portfolio into clean energy and new value-added products/services.
Technology and Innovation Risk	**Risks** • Rapid changes in energy technology • Risk of asset obsolescence due to primary reliance on fossil fuel production • Uncertainty related to new technologies, such as hydrogen or small modular reactors (SMR) regarding costs, commercial readiness, regulations, and social acceptance **Opportunities** • Investment in carbon technology • Development of clean energy solutions and comprehensive energy services • Portfolio resilience enhancement through investment diversification into new technologies alongside efficient management of fossil fuel assets	• Integrate technology assessment into the strategic planning process. • Conduct feasibility studies before investing. • Continuously monitor international technology trends.
Competitive and Capital Market Risk	**Risks** • Increased operating costs if the organization is slow to adapt to the transition • Heightened ESG expectations from investors and stakeholders • Decreased returns or economic unviability of existing assets due to changes in policy, technology, or market structure **Opportunities** • Enhancement of competitiveness by pivoting the business portfolio toward clean energy • Corporate value enhancement through clear ESG performance	• Set clear climate targets and communicate them transparently to investors. • Develop a capital structure that aligns with the transition strategy.

Performance

Goal	Target	Progress Against Target
Increasing the proportion of renewable energy	Over **50%** of the capacity is derived from renewables by 2030.	• Achieved an equity-based renewable energy capacity of **3,129** MW in current commercial operation, or **45%** of the total commercialized capacity. • On track to reach an equity-based renewable energy capacity of **9,425** MW in commercial operation by 2030, or **70%** of the total commercialized capacity.
New S-Curve innovation advancement	Develop investments in New S-Curve innovations, such as decarbonization technologies, decentralized power generation, and district cooling systems.	• CoolConnext Co., Ltd., an indirect subsidiary of GPSC, entered into a share purchase agreement with Keppel EaaS (Thailand) Co., Ltd. to acquire shares in Keppel Decarb Co., Ltd., a firm specializing in cooling systems and energy management.

Aspiration and Main Challenges

Aspiration

- To actively develop agile and adaptable energy business models that can thrive through the energy transition.
- To integrate innovation, technology, and sustainability into corporate strategy to create long-term value.
- To elevate GPSC's role as an integrated energy solution provider that supports decentralized energy systems and increased clean energy usage.
- To apply digital technology and data to optimize energy management and operations.
- To enhance competitiveness and the growth of new businesses in line with the future direction of the energy industry.

Main Challenges

- **Uncertain trajectory of the energy transition and technology:** The rapid advancement of energy technology and innovation, combined with changes in energy system structures, may increase the complexity of market forecasting and long-term investment decisions.
- **Challenges from the shifting policy and regulatory landscape:** Changes in energy policies, regulations, and market mechanisms may impact business models, project development, and the ability to generate long-term returns.
- **Increased competition and changing customer roles:** The entry of new players, digital energy platforms, and the growing role of prosumers (producers and consumers) require GPSC to continuously adapt to maintain competitiveness and meet a more diverse range of customer needs.
- **Challenges in transforming business models and enhancing internal organizational capabilities:** Transitioning to new energy business models requires the enhancement of technological, digital, and management capabilities, which may increase operational complexity and trigger changes in the organization.
- **Geopolitical and policy uncertainty:** The World Energy Outlook (WEO) 2025 indicates that geopolitical vulnerabilities and supply chain issues for energy and critical raw materials will be determining factors for the future of the energy market, representing risk factors that must be closely monitored. Recognizing such challenges, GPSC focuses on enhancing resilience through the development of technology, personnel, and partnerships to accommodate future changes with stability and sustainability.

Key Projects in 2025

Key Renewable Energy Project in 2025

Project Name

Solar Private Power Purchase Agreements (PPA) for Customers

Description Project Details

Getz Energy Co., Ltd. (Getz), a subsidiary under GPSC Group, installs solar rooftop systems under private PPAs to supply electricity to customers. In 2025, one additional project commenced commercial operations (COD) with a generating capacity of 0.09 megawatts.

Outcomes and benefits (quantitative) Benefits to the Company

- Additional revenue from electricity sales under the solar private PPAs totaling 0.4 million baht per year.

Benefits to stakeholders

- Customers benefit from solar private PPA rates that are, on average, 20% lower than current electricity prices for the electricity produced by the project.
- The project supports customers in reducing indirect greenhouse gas emissions (Scope 2) for customers by an average of 60 tCO2eq/year.

Social

Employee-Focused Organization

Value creation process and critical factors

- Financial capital
- Human capital
- Manufacturing capital
- Social and relationship capital
- Intellectual capital
- Natural capital

Stakeholders

- Employees
- Suppliers

Key achievements in 2025

71%
employee engagement rate
(against the average 68% in Thailand's market)

69%
of the employees adopted the ACT SPIRIT.

3.20%
turnover rate
(against the industry average of 3.80%)

100%
succession planning for key positions.

Business Driver

Employees are a vital engine driving GPSC toward the achievement of its vision, mission, and corporate strategy. Particularly in the context of a rapidly evolving business landscape, effective human resource management directly impacts operational capability, business continuity, and the management of costs and organizational risks.

GPSC prioritizes systematic human resource management to develop employees' skills, competency, and capabilities in alignment with business direction, which not only enhance operational efficiency, but also reduce the risk of personnel shortages and strengthen the organization's long-term competitiveness.

Personnel are central to GPSC's competitiveness. As such, appropriate workforce planning and skill development can enhance operational efficiency, while maintaining employee engagement helps reduce the risk of operational disruptions, ensuring business continuity. Additionally, GPSC has established HR metrics that are linked to performance outcomes, such as the succession readiness rate for key positions, engagement levels, and the turnover rate of talent, to ensure knowledge continuity and operational readiness.

Systematic human resource management is therefore a significant factor impacting operational efficiency, business continuity, and long-term organizational competitiveness.

Management Approach and Strategy

• Strategy for Driving Forward

To achieve this objective, various management mechanisms are utilized, such as personnel capability development, system and work process improvement, and the cultivation of organizational values and culture that promote the achievement of the established business targets. GPSC's human resource management consists of four key action plans:

Human capital development

Leadership development

Cultivation of corporate culture and employee engagement

HR operation optimization

• Policy and Commitment

GPSC enforces its Human Resource Management Policy to effectively steer its human resource management in alignment with its strategies and goals. The Human Resource Management Policy ensures sustainable and mutual success and advancement of both employees and the organization.

In accordance with the Human Resource Management Policy, GPSC carries out workforce planning, succession planning, training and skill development, and the linking of the performance management system with compensation in order to motivate and retain talent.

Human Resource Management Policy

• Management Approach

GPSC recognizes that personnel capability is a key factor in enhancing its competitiveness in the evolving landscape of the energy industry. As such, the Company has established a systematic approach to human resource development to foster knowledge, skills, and competencies in line with the business direction and ensure the long-term preparedness of the Company.

• Management Process

Human capital development	• Improving recruitment and selection processes and tools in alignment with the business expansion plan. • Developing employee branding to attract high-potential talent. • Developing talent development programs to support business growth both domestically and internationally.
Leadership development	• Planning employee competency development and designing development programs in alignment with defined competencies to appropriately enhance employee capabilities in line with GPSC's operational direction. • Developing a succession plan for key positions; recruiting and selecting high-potential talent; and assessing their capabilities and defining development pathways to ensure the organization is prepared to fill critical executive positions in anticipation of retirement.
Cultivation of corporate culture and employee engagement	• Strengthening employee engagement by using the ACT SPIRIT values to cultivate an organizational culture through HR systems and mechanisms as well as various activities, focusing on effective internal communication to build satisfaction and continued engagement between employees and the organization.
HR operation optimization	• Reviewing and improving HR work processes to align with business direction, focusing on the performance management system, strategic workforce planning, and organization restructuring. • Improving HR processes to better support the direction of the organization's overseas business operations, and optimizing efficiency by building platforms and work systems that accommodate new business models in the future.

• Risks and Opportunities

GPSC's human resource management focuses not only on developing employee capabilities but also on identifying and managing risks that may arise from shifts in the industry, technology, and labor market competition. Systematic risk and opportunity analysis enables GPSC to maintain business continuity and enhance personnel capabilities in preparation for long-term growth.

Driver Category	Risk and Opportunities	Mitigation Measure
Industry and technological shifts	**Risk:** Employee skills may not align with the rapidly changing direction of the electricity business, which could impact operational efficiency. **Opportunity:** Developing new skills helps elevate the organization's capabilities.	Realign employee skill, knowledge, and competency development with the business direction.
Labor market competition	**Risk:** The shortage or loss of high-potential talent may increase costs and impact operational continuity. **Opportunity:** Internal talent development helps reduce reliance on the external labor market.	Establish systematic employee development guidelines covering all levels.
Long-term organizational growth	**Risk:** Failure to enhance organizational capabilities at the pace of market change may limit competitiveness. **Opportunity:** Organizational capability enhancement supports sustainable growth.	Drive organizational capability development through job structure design, workforce planning, and reskilling.

Performance

Performance	Target	Progress Against Target
Implementation of succession plans to drive employee career advancement.	• 100% succession planning for key positions	• 100% succession planning for key positions
Turnover reduction and employee engagement enhancement activities • GPSC Podcast • Leadershift & Mini MBA Training • AI Copilot & Data Revolution Bootcamp • SPARK FLIP Project • Buddy Program • Well-being activities	• Lower turnover rate than the previous year • Employee engagement level equal to or no more than 3.0% lower than Thailand's market average	• The turnover rate was 3.20%, lower than the industry average. • The employee engagement level was 71%, 3.0% over Thailand's market average.
GPSC Academy for functional excellence and lifelong learning	Promoting learning and enhancing employee capabilities in functional work and new businesses to support the Company's strategic plan.	The 3rd GPSC TEX TALK was hosted as a knowledge-sharing forum on power plant-related technical matters, along with various training programs, such as the PPA Course, focusing on the structure and terms of international hydropower power purchase agreements.
Implementation of the SPARK Accelerator Management Trainee Program to build and develop leaders equipped with future-ready skills in support of the Company's key strategic plans.	Developing and retaining high-potential talent to build a pipeline of future leaders.	Class 3 was launched to prepare high-potential talent through various learning formats and rotations across key functions of the Company.

Progress Against Target

Aspiration

- To foster a work environment that encourages personnel to realize their full potential, placing employees at the heart of organizational progress while also ensuring an appropriate quality of life at work.
- To promote continuous learning and new skill development to elevate employee capabilities in alignment with business directions, technology shifts, and the transition of the energy industry, with particular focus on the application of digital technology and artificial intelligence for operational capability enhancement.
- To strengthen adaptability among employees at all levels in anticipation of future changes in technology, work models, and business contexts.
- To ensure leadership preparedness and long-term organizational capability to support sustainable growth and business continuity.

Driven by the conviction that employees are the heart of organizational progress, GPSC strives to create a work environment conducive to the full development of employee potential and promote continuous learning and new skill development to accommodate future changes in the energy industry.

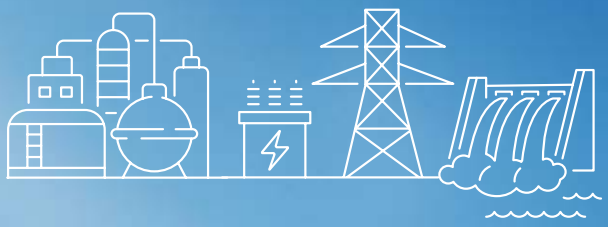
Within the ongoing transition of the energy industry, GPSC places a particular emphasis on developing new skills, fostering adaptability, and equipping employees at all levels for future changes in technology, work models, and business challenges.

Nevertheless, GPSC is still facing challenges due to competition for highly skilled workers, the need to adapt to new work models, the application of digital technology and artificial intelligence, as well as the development of next-generation leaders and succession plans to maintain the organization's business continuity and strength in the long term.

Main Challenges

- Competition for highly skilled workers in the energy industry with knowledge of new technologies and energy transition, which affects the ability to attract and retain high-potential talent.
- Personnel's adaptability to new ways of working, lifelong learning capabilities, and the effective application of artificial intelligence (AI) and advanced digital technologies in the workplace.
- Building a strong and unified organizational culture amid organizational expansion, workforce diversity, and evolving work models.
- Developing next-generation leaders and succession plans to ensure continuity in future management and support long-term organizational growth.

Key Projects in 2025



SPARK Accelerator Management Trainee Program

Objective

Candidates from within and outside the organizations are selected to learn about the Company's business operations through job rotation, mentorship by experts in each function, and training in leadership and business development programs.

Description

As one of GPSC's key strategies is to build New S-Curve businesses, developing skilled leaders for the future is of paramount importance.

In 2021, GPSC launched the SPARK Accelerator Management Trainee Program, the future leader development program of GPSC Group, the power and energy innovation flagship of PTT Group. The program aims to enhance leadership capabilities of both employees and external candidates through diverse and challenging learning mechanisms both domestically and internationally. Participants rotate through three key functions of GPSC over a three-year period, such as Corporate Strategy and Investment Management, Business Development, Commerce, Financial Management, and Operations.

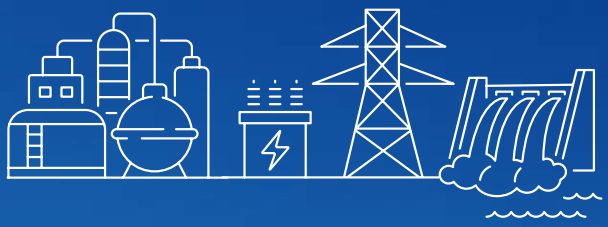
Outcomes and benefits (quantitative) Benefits to the Company

- GPSC gained knowledgeable and capable employees through the intensive development program. Since its inception, all 10 management trainees from Classes 1 and 2 of the SPARK Program (100%) have graduated and been successfully placed in key positions across departments - a 100% placement rate.

Benefits to stakeholders

- Participants were given an opportunity to rotate through three key functions over a three-year period to prepare for future leadership roles.
- Employees participated with various functions in critical projects, supported by dedicated mentors.
- Employees engaged in international assignments to explore business opportunities.

Key Projects in 2025



Holistics M&A Excellence

Description

The training was designed to systematically educate the participants on merger and acquisition (M&A) management and build capabilities strategically vital to organizational growth.

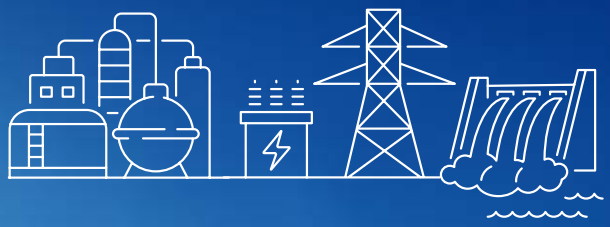
Outcomes and benefits (quantitative) Benefits to the Company

- Employees were equipped to effectively support the organization in developing investment projects to strengthen business, enhance competitiveness, and accommodate growth in the energy industry and related businesses as well as business expansion investments.

Benefits to stakeholders

- Comprehensive M&A knowledge and practical skills across strategy, finance, legal, tax, and risk management throughout the deal cycle, from project feasibility assessment, due diligence, negotiation, and contract preparation to post-merger integration.

Key Projects in 2025



EGRC Program

Description

The program was aimed at elevating management transparency and strengthening ethics, governance, risk, and compliance for VP/DM-level executives.

Outcomes and benefits (quantitative) Benefits to the Company

- As ethics, governance, risk, and compliance underpin the discharge of duties and decision-making in situations involving choices and risks at all management levels, this training enabled employees to assess the extent to which each department's work processes complied with GRC principles, thereby reducing systemic risk and strengthening organizational sustainability.

Benefits to stakeholders

- Employees conducted a self-assessment of their work processes according to EGRC principles to collaboratively close the identified gaps, and cultivated a clear ethical mindset and decision-making framework.

Voices of Stakeholders

Shareholders

GPSC should remain committed to ethical business practices and robust corporate governance, while delivering consistent and attractive returns to shareholders, particularly through investments in overseas clean energy projects, which enhance the Company's resilience against market fluctuations and bolster long-term business stability. Shareholders expect the Company to **keep advancing its transition toward clean energy, diversify its business portfolio, and leverage technology and innovation to sustainably maintain its competitiveness.**

Investors

Placing emphasis on achieving net-zero emissions, investors view the energy transition as a critical challenge that requires serious action. Amidst pressures from evolving legislation, carbon tax mechanisms, and shifts in the electricity market structure, investors expect **GPSC to provide clear, transparent, and verifiable disclosures regarding its targets,** action plans, and progress so as to allow for a proper assessment of financial risks and the potential impact on investment portfolios.

Government Agencies and Relevant Organizations

GPSC plays a vital role in supporting Thailand's energy and climate change goals, with its operations consistently on par with or exceeding the requirements of environmental standards. GPSC also provides data and cooperates on key issues, such as greenhouse gas management and clean energy initiatives. Furthermore, there is an expectation for **GPSC to develop personnel capabilities and advance new energy technologies to strengthen the long-term security of Thailand's energy systems.**

Partners

GPSC's professionalism and adherence to international standards have fostered strong confidence in collaborative ventures. Business partners **see significant opportunities in joint clean energy projects and efficiency optimization technologies,** such as high-efficiency cooling systems and solar power. **GPSC also prioritizes the exchange of knowledge and innovation.** By enhancing data accessibility and streamlining related processes, GPSC can further improve agility and efficiency in collaborative efforts.

Customers

As a high-standard power producer consistently trusted by customers, GPSC plays a key role in developing flexible energy innovations in support of decarbonization. Customers expect **GPSC to share expertise and guidelines related to clean energy and develop service models that align with their own sustainability goals,** thereby driving a collective shift toward green growth in the long term.

Communities and Society

GPSC operates with a deep consideration for the environment and surrounding communities and promotes the use of clean energy in a tangible manner, particularly through a shift from fossil fuel-based power generation to cleaner energy sources. **GPSC also prioritizes community and social initiatives aimed at generating value, contributing to the sustainable development of local communities,** and **improving the quality of life for residents in the long term.**

Employees

GPSC prioritizes the welfare and quality of life of its personnel as well as their skill development and professional growth. To this end, the Company places emphasis on clear and thorough internal communication to ensure all **employees understand the corporate direction and feel empowered to contribute to shared goals.** In addition, GPSC's clearly defined sustainability guidelines strengthen job security and promote skill development in anticipation of shifts in energy and technology, thereby positioning the Company as a leading sustainable international power producer.

Suppliers and Contractors

GPSC is committed to clean energy and environmental stewardship amid challenges and continuously innovates to elevate its operations in anticipation of the future. **Suppliers and contractors whose business directions align with the shift toward clean energy will help create new opportunities for collaboration,** fostering confidence in sustainable operations and supporting the development of long-term business partnerships.

Data Coverage

Country	Subsidiaries & Associated Companies	Abv.	Shareholder	GPSC Shareholding	Operational Control
Thailand	Global Power Synergy Public Company Limited	GPSC	GPSC	100.00%	Yes
	GPSC Holding (Thailand) Company Limited	GHT	GPSC	100.00%	Yes
	Glow Energy Public Company Limited	GLOW	GPSC, GHT	99.83%	Yes
	Glow SPP2 Company Limited	GSPP2	GLOW	95.00%	Yes
	Glow SPP3 Company Limited	GSPP3	GLOW	100.00%	Yes
	Glow SPP11 Company Limited	GSPP11	GLOW	100.00%	Yes
	Glow Company Limited	GCO	GLOW	100.00%	Yes
	Glow IPP Company Limited	GIPP	GCO	95.00%	Yes
	Houay Ho Thai Company Limited	HHTC	GCO	49.00%	No
	Glow IPP2 Holding Company Limited	GIPP2	GLOW	100.00%	Yes
	GHECO-One Company Limited	GHECO-ONE	GIPP2	65.00%	Yes
	Glow IPP3 Company Limited	GIPP3	GSPP2	100.00%	Yes
	Eastern Fluid Transport Company Limited	EFT	GLOW, IEAT, PTTGC, SCGC, WHA, Thai Tank Terminal	15.00%	No
	Getz Energy Company Limited	Getz	GPSC	100.00%	Yes
	CoolConnext Company Limited	CCX	Getz, Keppel EaaS (Thailand) Ltd.	51.00%	Yes
	Energy Recovery Unit Company Limited	ERU	GPSC	100.00%	Yes
	GPSC Treasury Center Company Limited	GPSCTC	GPSC	100.00%	Yes
	IRPC Clean Power Company Limited	IRPC-CP	GPSC, IRPC	51.00%	Yes
	Global Renewable Synergy Company Limited	GRSC	GPSC	100.00%	Yes
	Natee Synergy Company Limited	NSC	GPSC	100.00%	Yes
	Wind Power Development Company Limited	WPD	GPSC, CI GMF II Cooperatief U.A	51.00%	Yes
	EurusPlus Company Limited	EurusPlus	GPSC, CI NMF I Cooperatief U.A	51.00%	Yes
	BoreePlus Company Limited	BoreePlus	GPSC, CI NMF I Cooperatief U.A	51.00%	Yes
	Helios 1 Company Limited	Helios1	GPSC, P.C.S Estate	50.00%	No
	Helios 2 Company Limited	Helios2	GPSC, P.C.S Estate	50.00%	No
	Helios 3 Company Limited	Helios3	GPSC, P.C.S Estate	50.00%	No
	Helios 4 Company Limited	Helios4	GPSC, P.C.S Estate	50.00%	No
	Nava Nakorn Electricity Generating Company Limited	NNEG	GPSC, Ratch Group, Nava Nakorn	30.00%	No
	Keppel Decarb Company Limited	Keppel	CCX, Decarb	49.00%	No
	Bangpa-In Cogeneration Company Limited	BIC	GPSC, CKP	25.00%	No
	Global Renewable Power Company Limited	GRP	GPSC, GRSC	100.00%	Yes
	Global Renewable Power Operating Company Limited	GRPO	GRP	100.00%	Yes
	World Exchange Asia Company Limited	WXA	GRP	100.00%	Yes

Economic / Governance								Environmental														Social		
		Maintaining Affordability and Reliability				Evolving the business model		Environmental Management										Clean Energy Towards Net-Zero						
Governance, Risk Management and Compliance (GRC)	Customer Relationship Management	Installed Capacity	Net Energy Generated	Other KPIs	Supply Chain Management	Being an Innovative Leader	Capturing the Future Sustainability Market	Energy Consumption	Water Consumption	Waste Disposal	No_x Emission	So_x Emission	Ash & Gypsum Waste	Direct Mercury Emission	Dust Emission	Hazardous Waste	SF6	GHG Scope 1	GHG Scope 2	GHG Scope 3	GHG Intensity (Scope1 and 2)	Occupational Health and Safety (OHS)	Employee-focused Organization	Sustainable Community
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Country	Subsidiaries & Associated Companies	Abv.	Shareholder	GPSC Shareholding	Operational Control
	P.P. Solar Company Limited	PPS	GRP	100.00%	Yes
	N.P.S. Star Group Company Limited	NPS	GRP	100.00%	Yes
	Global Renewable Power One Company Limited	GRP1	GRP	100.00%	Yes
	Nuovo Plus Company Limited	NUOVO PLUS	GPSC, Arun Plus	49.00%	No
	NV Gotion Company Limited	NV Gotion	NUOVO PLUS, Gotion Singapore	51.00%	Yes
	Ratchaburi Power Company Limited	RPCL	GPSC, RAC, PAI, Saha Union	24.37%	No
	Business Services Alliance Company Limited	BSA	GPSC, PTT, PTTSC, PTT Digital	25.00%	No
	Sport Services Alliance Company Limited	SSA	BSA	25.00%	No
	Sarn Palung Social Enterprise Company Limited	SPSE	GPSC,PTT, IRPC, TOP, PTTGC, PTTEP, PTTOR	10.00%	No
	Houay Ho Power Company Limited	HHPC	GCO, HHTC	80.00%	Yes
Laos	Xayaburi Power Company Limited	XPCL	NSC, CKP, EDL-Gen, EGCO	25.00%	No
	Nam Lik Power 1 Company Limited	NL1PC	GPSC, HEC, POSCO, EDL	40.00%	No
Myanmar	Glow Energy Myanmar Company Limited	GE Myanmar	GE Myanmar	100.00%	Yes
Singapore	GPSC Singapore Pte. Ltd.	GPSC SG	GPSC SG	100.00%	Yes
USA	24M Technologies, Inc.	24M	24M	15.64%	No
India	Avaada Energy Private Limited	AEPL	AEPL	39.90%	No
	Global Renewable Synergy Taiwan Company Limited	GRSC TW	GRSC	100.00%	Yes
	CI Changfang Limited	Changfang	GRSC, GRSC TW, CI III Changfang K/S, C II Changfang K/S, Taiwan Wind Investment	25.00%	No
Taiwan	CI Xidao Limited	Xidao	GRSC, GRSC TW, CI III Changfang K/S, C II Changfang K/S, Taiwan Wind Investment	25.00%	No
	Sheng Yang Energy Company Limited	SYE	GRP1	90.00%	Yes
China	Global Renewable Power China (Shanghai) Company Limited	GRP China	GRP	100.00%	Yes
	Anhui Axxiva New Energy Technology Company Limited	AXXIVA	GPSC SG, Others	9.07%	No

Remarks

● The company applies relevant policy, guideline where sustainability performance data cover full scope.

● The company partially applies relevant policy, guideline where sustainability performance data partially cover scope.

○ Not relevant to the company

- The company does not apply relevant policy, guideline where sustainability performance data does not cover in the reporting scope.

Economic / Governance								Environmental															Social		
		Maintaining Affordability and Reliability				Evolving the business model		Environmental Management											Clean Energy Towards Net-Zero						
Governance, Risk Management and Compliance (GRC)	Customer Relationship Management	Installed Capacity	Net Energy Generated	Other KPIs	Supply Chain Management	Being an Innovative Leader	Capturing the Future Sustainability Market	Energy Consumption	Water Consumption	Waste Disposal	No_x Emission	So_x Emission	Ash & Gypsum Waste	Direct Mercury Emission	Dust Emission	Hazardous Waste	SF6	GHG Scope 1	GHG Scope 2	GHG Scope 3	GHG Intensity (Scope1 and 2)	Occupational Health and Safety (OHS)	Employee-focused Organization	Sustainable Community
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ASSURANCE STATEMENT

SGS (THAILAND) LIMITED'S REPORT ON SUSTAINABILITY ACTIVITIES IN THE GLOBAL POWER SYNERGY PUBLIC COMPANY LIMITED'S INTEGRATED SUSTAINABILITY REPORT FOR 2025

NATURE OF THE ASSURANCE/VERIFICATION

SGS (Thailand) Limited ("SGS") was commissioned by Global Power Synergy Public Company Limited ("GPSC") to conduct an independent assurance engagement on the sustainability information disclosed in GPSC's Integrated Sustainability Report 2025 (Decarbonization for Sustainable Future), for the year ended 31 December 2025 (the "Report"), and on the sustainability information published on GPSC's sustainability website (the "Website")

INTENDED USERS OF THIS ASSURANCE STATEMENT

This Assurance Statement is provided to GPSC and its stakeholders in connection with the sustainability information disclosed in the Report and the Website.

RESPONSIBILITIES

The preparation and presentation of the sustainability information disclosed in the Report and on the Website are the responsibility of management and those charged with governance of GPSC. SGS has not been involved in the preparation of such information.

Our responsibility is to express an independent assurance conclusion on the specified sustainability information within the defined scope of this engagement, based on the procedures performed and the evidence obtained in accordance with the applicable assurance standards.

ASSURANCE STANDARDS, TYPE AND LEVEL OF ASSURANCE

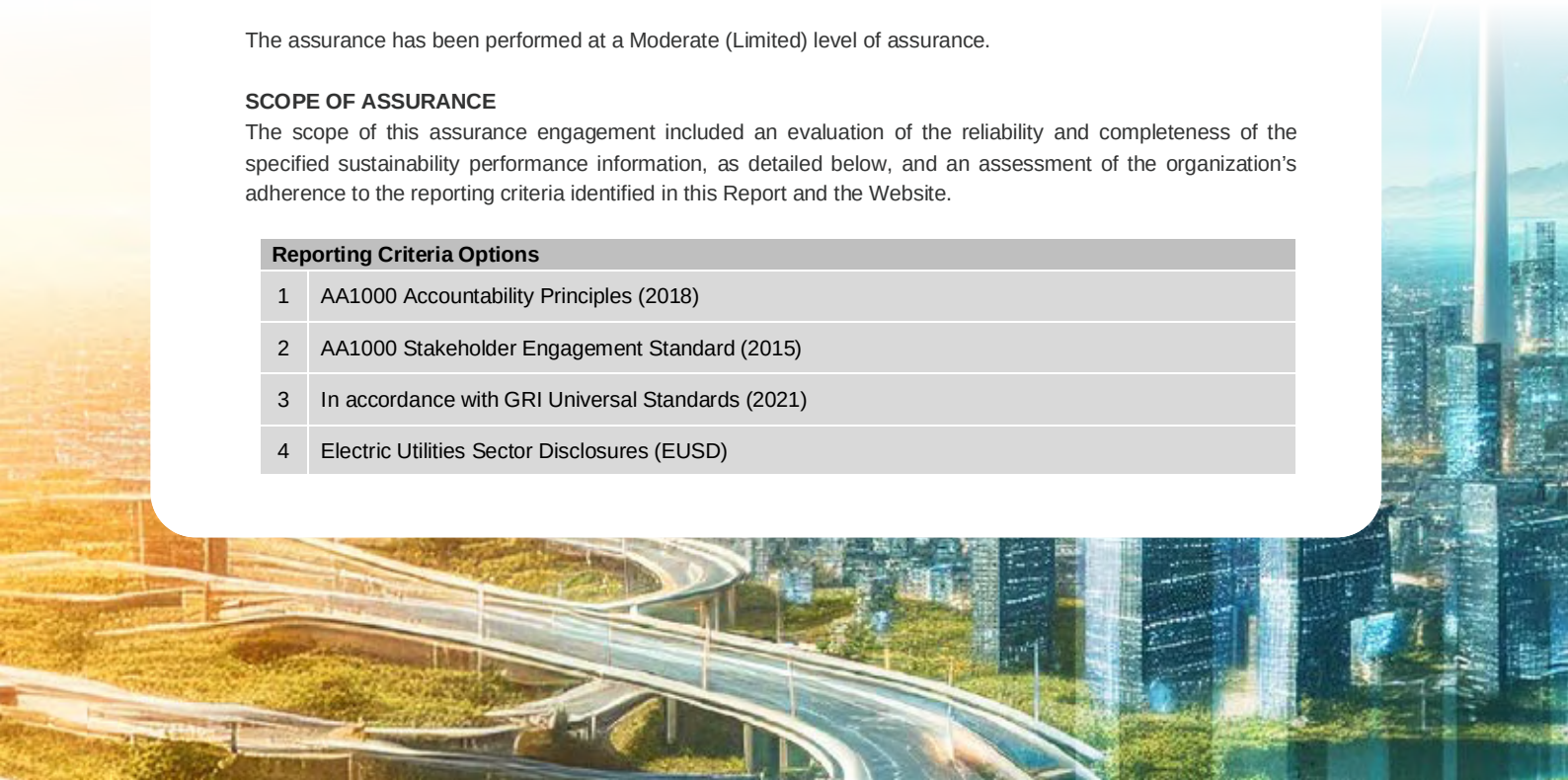
This assurance engagement has been conducted in accordance with the AA1000 Assurance Standard v3 (AA1000AS v3), Type 2. The engagement included an evaluation of the organization's adherence to the AccountAbility Principles 2018 (AA1000AP, 2018) - Inclusivity, Materiality, Responsiveness and Impact — and an assessment of the reliability of the specified sustainability performance information.

The assurance has been performed at a Moderate (Limited) level of assurance.

SCOPE OF ASSURANCE

The scope of this assurance engagement included an evaluation of the reliability and completeness of the specified sustainability performance information, as detailed below, and an assessment of the organization's adherence to the reporting criteria identified in this Report and the Website.

Reporting Criteria Options	
1	AA1000 Accountability Principles (2018)
2	AA1000 Stakeholder Engagement Standard (2015)
3	In accordance with GRI Universal Standards (2021)
4	Electric Utilities Sector Disclosures (EUSD)



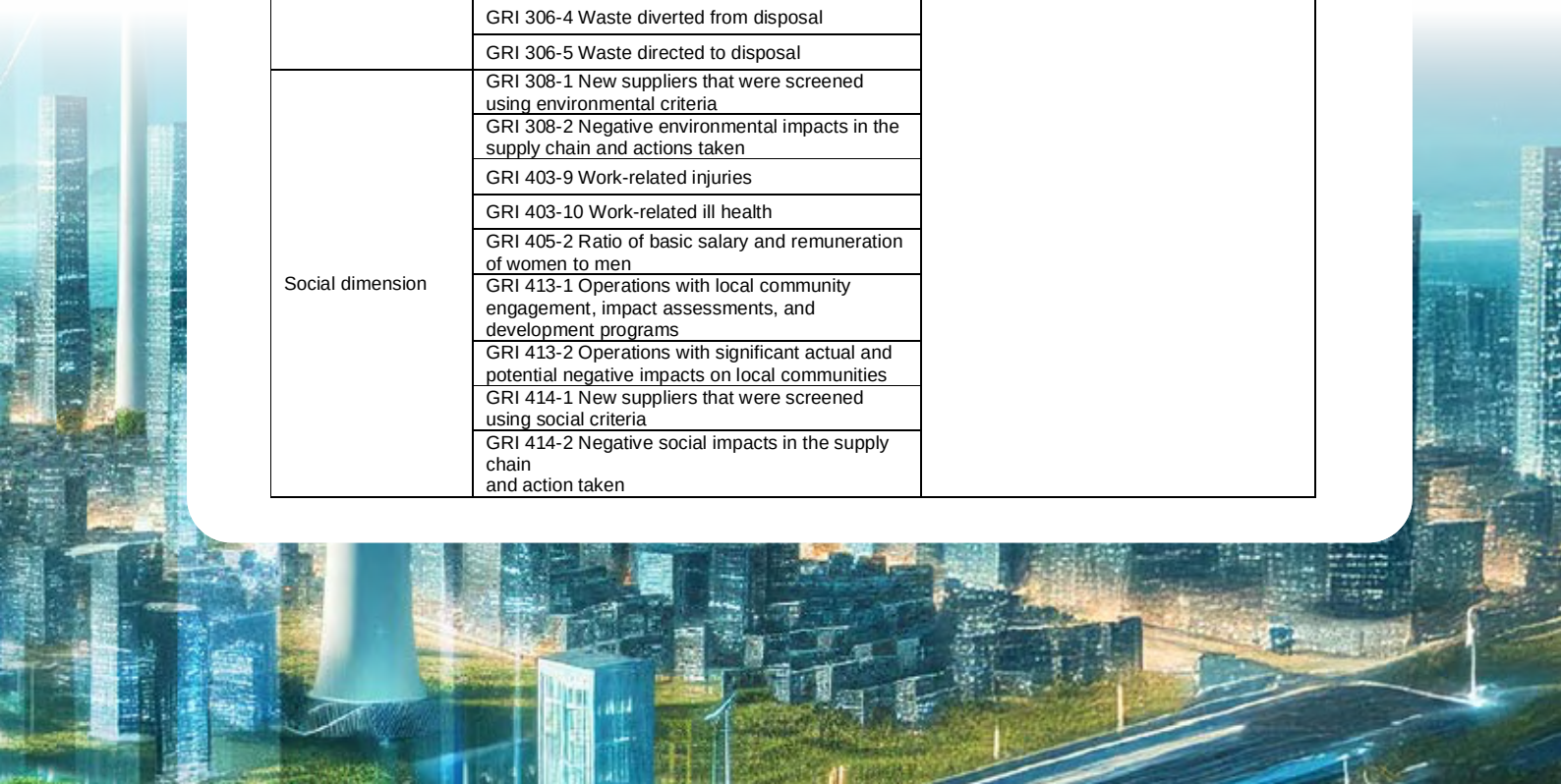
SPECIFIED PERFORMANCE INFORMATION AND DISCLOSURES INCLUDED IN SCOPE

The specified performance information subject to assurance relates to the reporting period ended 31 December 2025 and includes selected sustainability disclosures presented in the Report and the Website.

The engagement covered sustainability disclosures prepared in accordance with the GRI Standards 2021, including GRI 1 (Foundation), GRI 2 (General Disclosures), GRI 3 (Material Topics), and the applicable topic-specific Standards within the 200, 300 and 400 series, as referenced in the GRI Content Index.

The specified sustainability performance indicators included within the scope of assurance are as follows:

ESG Dimension	Topic	The boundary
GRI 2: General Disclosure	GRI 2-6 Active, value chain and other business relationships	- GPSC Head office (ENCO Building) - GPSC Warehouse - Central Utility Plant 1: CUP-1 - Central Utility Plant 2: CUP-2 - Central Utility Plant 3: CUP-3 - Central Utility Plant 4: CUP-4 - Sriracha Power Plant - Glow IPP plant - Glow Energy Phase 1 Plant - Glow Energy Phase 2 Plant - Glow Energy Phase 4 Plant - Glow Energy Phase 5 Plant - Glow Energy CFB 3 Plant - Glow SPP 2/Glow SPP 3 Plant (Phase 3) - Glow SPP 2 Replacement - Glow SPP 11 Project 1 Plant - Glow SPP 11 Project 2 Plant - Glow SPP 11 Project 3 Plant - GHECO-One Power Plant - Getz Energy Company Limited - Glow Energy Solar Plant - Solar Private PPA – GPSC & Glow - Refuse Derived Fuel (RDF) Power Plant - Houay Ho Power Plant
	GRI 2-7 Employees	
	GRI 2-8 Workers who are not employees	
GRI 3: Material Topics	GRI 3-1 Process to determine material topics	
	GRI 3-2 List of material topics	
	GRI 3-3 Management of material topics	
Environmental dimension	GRI 302-1 Energy consumption within the organization	
	GRI 303-3 Water withdrawal	
	GRI 303-4 Water discharge	
	GRI 303-5 Water consumption	
	GRI 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	
	GRI 304-2 Significant impacts of activities, products and services on biodiversity	
	GRI 304-3 Habitats protected or restored	
	GRI 305-1 Direct (Scope 1) GHG emission	
	GRI 305-2 Energy indirect (Scope 2) GHG emission	
	GRI 305-3 Other indirect (Scope 3) GHG emission*	
	GRI 305-4 GHG emission intensity	
	GRI 305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and Mercury	
	GRI 306-3 Waste generated	
	GRI 306-4 Waste diverted from disposal	
	GRI 306-5 Waste directed to disposal	
Social dimension	GRI 308-1 New suppliers that were screened using environmental criteria	
	GRI 308-2 Negative environmental impacts in the supply chain and actions taken	
	GRI 403-9 Work-related injuries	
	GRI 403-10 Work-related ill health	
	GRI 405-2 Ratio of basic salary and remuneration of women to men	
	GRI 413-1 Operations with local community engagement, impact assessments, and development programs	
	GRI 413-2 Operations with significant actual and potential negative impacts on local communities	
	GRI 414-1 New suppliers that were screened using social criteria	
	GRI 414-2 Negative social impacts in the supply chain and action taken	



ESG Dimension	Topic	The boundary
	GRI 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	
Sector Specific Indicators	EUSD – EU11 Average generation of efficiency of thermal plants by energy source and by regulatory regime	
	EUSD – EU30 Average plant availability factor by energy source and by regulatory regime	

* Based on the verified data, the Scope 3 categories included within the assurance scope are Category 3 (Fuel- and Energy-related Activities), Category 4 (Upstream Transportation and Distribution), Category 5 (Waste Generated in Operations), Category 6 (Business Travel), Category 7 (Employee Commuting), and Category 9 (Downstream Transportation and Distribution).

ASSURANCE METHODOLOGY

This assurance engagement was conducted in accordance with the AA1000 Assurance Standard v3 (AA1000AS v3), Type 2, covering both the evaluation of the reliability of the information within the defined scope and the assessment of the application of the AccountAbility Principles 2018 (AA1000AP, 2018).

The engagement was performed using a risk-based approach and professional judgement to obtain sufficient and appropriate evidence to support a Moderate (Limited) assurance conclusion. The nature and extent of the procedures performed were determined based on our assessment of the risks of material misstatement of the specified information and the risk of material non-adherence to the AA1000AP (2018).

The procedures performed included:

- Evaluating the design and implementation of sustainability governance, management systems, and internal controls over the collection and reporting of specified sustainability information;
- Performing risk-based analytical procedures and limited substantive testing, including sample-based verification and recalculation of selected performance indicators within the defined reporting boundaries;
- Conducting interviews with management and responsible personnel, including on-site visits at Glow Energy Phase 4 Plant, Central Utility Plant 3: CUP-3, Glow SPP 11 Project 1 Plant, Glow SPP 11 Project 2 Plant, Glow SPP 11 Project 3 Plant;
- Reviewing supporting documentation and source data on a sample basis to assess accuracy, completeness, and consistency of reported information; and
- Assessing the processes for determining material topics and stakeholder engagement in line with the applicable reporting criteria and the AccountAbility Principles (2018).

LIMITATIONS

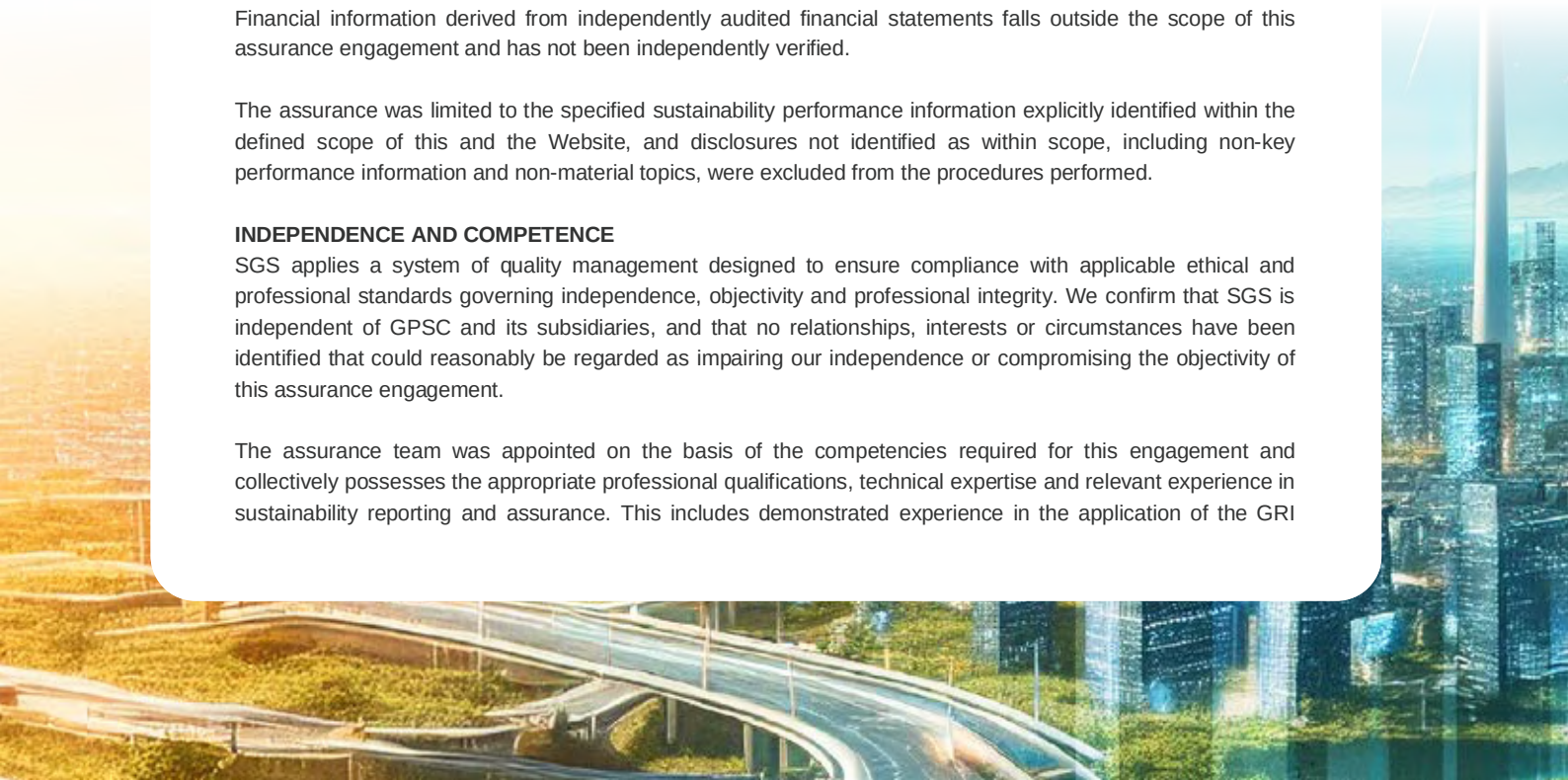
Financial information derived from independently audited financial statements falls outside the scope of this assurance engagement and has not been independently verified.

The assurance was limited to the specified sustainability performance information explicitly identified within the defined scope of this and the Website, and disclosures not identified as within scope, including non-key performance information and non-material topics, were excluded from the procedures performed.

INDEPENDENCE AND COMPETENCE

SGS applies a system of quality management designed to ensure compliance with applicable ethical and professional standards governing independence, objectivity and professional integrity. We confirm that SGS is independent of GPSC and its subsidiaries, and that no relationships, interests or circumstances have been identified that could reasonably be regarded as impairing our independence or compromising the objectivity of this assurance engagement.

The assurance team was appointed on the basis of the competencies required for this engagement and collectively possesses the appropriate professional qualifications, technical expertise and relevant experience in sustainability reporting and assurance. This includes demonstrated experience in the application of the GRI



Standards, AA1000AS v3 and ISAE 3000 (Revised), as well as expertise in ESG performance measurement, internal control evaluation, data verification and sustainability assurance engagements of comparable scope, scale and complexity.

FINDINGS AND CONCLUSIONS

ASSURANCE OPINION

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the Specified Information within the defined scope of this engagement is materially misstated in accordance with the applicable reporting criteria, or that GPSC has not, in all material respects, applied the AccountAbility Principles 2018 (AA1000AP, 2018) in the preparation and presentation of such information.

ADHERENCE TO AA1000 ACCOUNTABILITY PRINCIPLES (2018)

INCLUSIVITY

GPSC maintains stakeholder engagement processes covering key groups including investors, employees, customers, suppliers, government agencies, partners, and communities. Engagement is conducted through established communication channels and consultations to capture stakeholder expectations. These inputs support the identification of material topics and inform sustainability strategy and reporting.

MATERIALITY

GPSC applies a double materiality assessment process considering both the impacts of its operations on the environment and society and the potential implications of sustainability-related risks and opportunities for the business. The process references the GRI Standards and incorporates stakeholder engagement and internal evaluation to prioritise material topics integrated into sustainability management and strategy.

RESPONSIVENESS

GPSC addresses material sustainability matters through defined governance structures, policies, and management systems. Initiatives covering climate change, renewable energy development, environmental management, employee well-being, and responsible business conduct are implemented and monitored, with progress disclosed through qualitative and quantitative performance information.

IMPACT

GPSC identifies and manages significant environmental, social, and economic impacts through defined targets, monitoring processes, and performance indicators. Key areas include greenhouse gas emissions, resource use, occupational health and safety, and community engagement, supported by long-term commitments including net-zero emissions by 2050.

Signed:
For and on behalf of SGS (Thailand) Limited

Montree Tangtermsirikul
General Manager
238 TRR Tower, 19th-21st Floor, Naradhiwas Rajanagarindra Road, Chong Nonsi, Yannawa, Bangkok 10120, Thailand
09 March 2026
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AA1000
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