GPSC IFRS S2 Sustainability Disclosure Standard 2025

Climate-Related Disclosures

July 2026

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IFRS S2:
Introduction

Clean Energy Toward Net Zero

Integrating Climate Strategy into Business Transformation

Global Power Synergy Public Company Limited (GPSC) recognizes climate change as a strategic factor that may affect the resilience, competitiveness, and long-term value creation of its businesses. In response, GPSC integrates climate-related risks and opportunities into its corporate strategy, investment planning, portfolio management, and operational decision-making. The Company is progressively transforming its power and energy portfolio toward lower-carbon and renewable energy while maintaining energy security, operational resilience, and sustainable financial performance.

GPSC has strengthened its long-term decarbonization ambition toward achieving Net Zero emissions by 2050. The transition is supported by the expansion of renewable energy, optimization and rebalancing of the existing asset portfolio, enhancement of energy efficiency, and assessment of emerging low-carbon technologies. These strategic actions are designed to reduce the carbon intensity of GPSC's portfolio while strengthening resilience and positioning the Company to capture opportunities arising from the global energy transition.

In 2025, GPSC continued to advance its transition through renewable energy expansion and strategic portfolio management. Renewable operating capacity increased by approximately 335 MW year-on-year, alongside portfolio rebalancing initiatives aimed at improving strategic fit and capital efficiency. These actions demonstrate how GPSC's climate ambition is being translated into business and investment decisions.

Climate considerations are increasingly embedded in GPSC's portfolio and investment management. In 2025, the Company continued strategic portfolio rebalancing to enhance strategic fit and capital efficiency while pursuing growth opportunities in renewable energy and other lower-carbon businesses. GPSC also continues to assess emerging technologies and solutions—including energy storage, low-carbon fuels, carbon capture, and other advanced energy technologies—as potential enablers of its long-term transition.

GPSC's Robust Climate Framework

GPSC applies an integrated climate governance and management framework to translate its climate commitments into actions. The framework encompasses four interconnected pillars—Governance, Strategy, Risk Management, and Metrics and Targets—through which climate-related risks and opportunities are incorporated into strategic planning, investment decisions, risk management processes, and performance monitoring.

Figure 2: Climate-related risks and opportunities disclosure

Transparency Through Reporting

GPSC is committed to transparent and decision-useful climate-related disclosure. This report has been prepared with reference to the IFRS S2 Climate-related Disclosures Standard and builds upon GPSC's existing climate reporting practices, including the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and relevant industry-based metrics derived from the SASB Standards. The disclosure provides information on how GPSC governs and manages climate-related risks and opportunities, integrates them into strategy and risk management, and measures performance and progress against climate-related targets.

2

IFRS S2:
Governance

GPSC Climate Change Governance Structure

Governance

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Integrating Board oversight, executive management and cross-functional action to govern climate-related risks and opportunities.

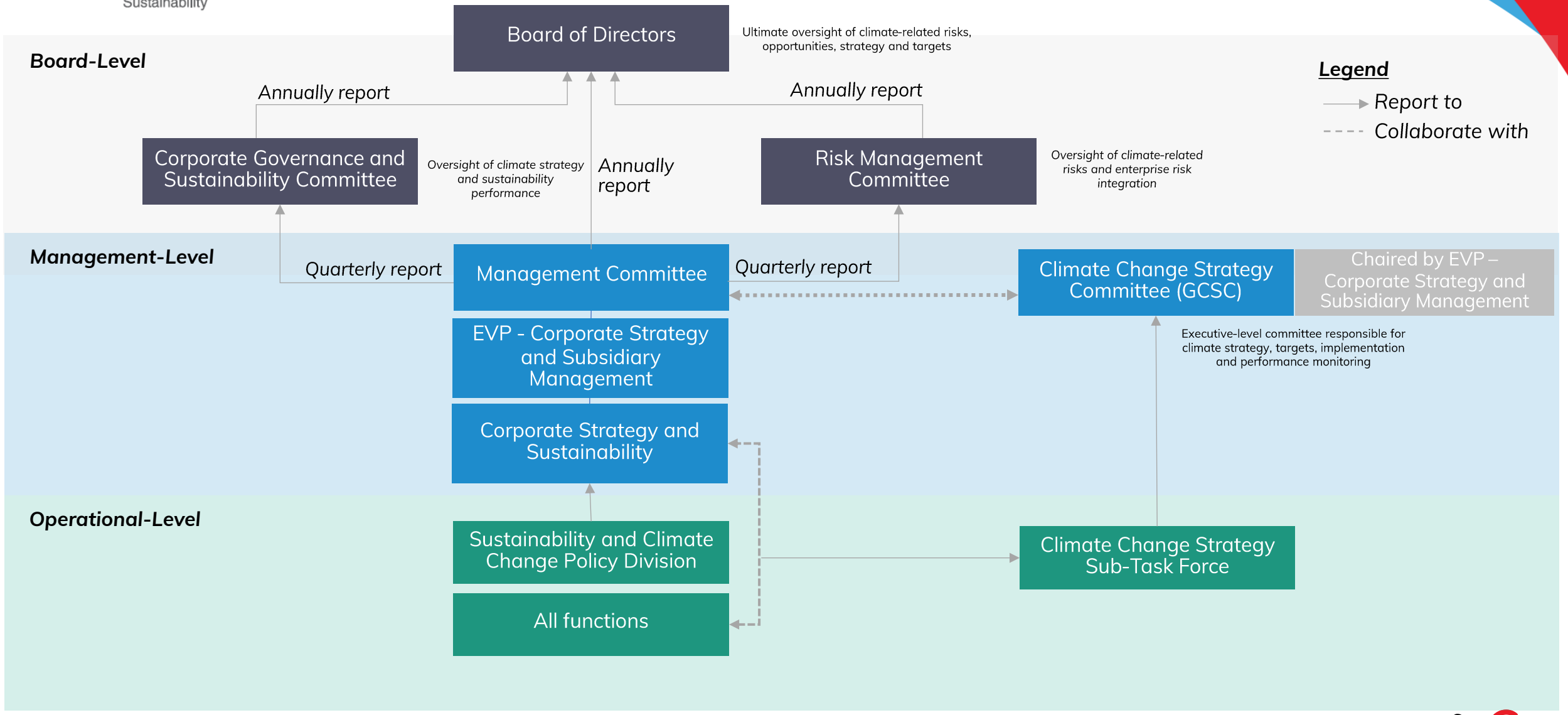

Figure 3: Climate governance structure

Governance

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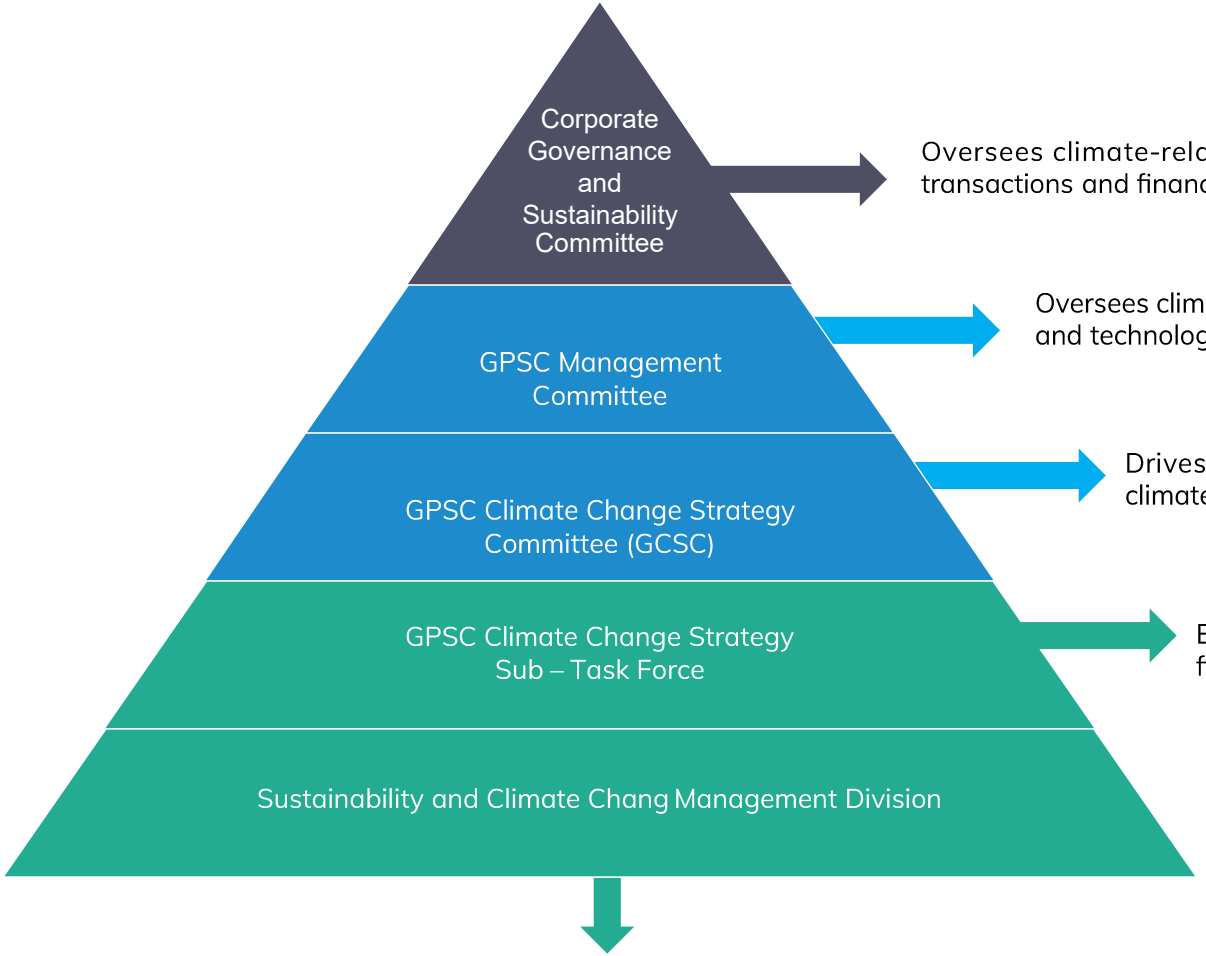
GPSC Climate Governance and Task Force Structure

Cross-functional governance structure to translate GPSC's climate strategy into effective implementation and action.



Oversees climate-related risks and opportunities, climate policies and targets, and major strategic transactions and financial resource allocation.

Oversees climate policies, strategies and action plans, including key decisions on low-carbon investments and technologies.

Drives GPSC Group's climate strategy, targets and action plans, and monitors GHG reduction, climate mitigation and adaptation performance.

Executes cross-functional climate actions covering strategy, GHG management, climate finance, technology and communication.

The Sustainability and Climate Change Management Division Coordinates GPSC's climate strategy and action plans, monitors implementation and compliance, and promotes climate and sustainability integration across the organization.

Figure 4: GPSC Climate Governance and Task Force Structure

Governance

IFRS Sustainability

Climate Governance Structure

Board oversight of climate strategy, risks, targets and major investment decisions.

1. Board-Level

1.1 The Roles and Responsibility

1.1.1 Board of Directors

The Board of Directors provides ultimate oversight of climate-related risks and opportunities and approves key climate policies, strategies and targets across short-, medium- and long-term horizons. The Board also oversees major transactions and financial resource allocation, considering climate risk assessments and financial implications to support mitigation and adaptation actions.

1.1.2 The Corporate Governance and Sustainability Committee and Risk Management Committee

The Corporate Governance and Sustainability Committee (CGSC) and Risk Management Committee (RMC) support Board oversight by reviewing:

1. Risk management policies and climate-related policies
2. Business plans, climate strategy, and action plan
3. Climate management objectives and targets
4. Progress on climate-related management against goals and targets.
5. Annual budget, capital expenditures, acquisitions, and divestitures

1.2 Report of Progress

The CGSC and RMC review climate-related risks, opportunities and performance at least quarterly and report significant matters to the Board of Directors at least annually.

For more details, see Roles, Duties and Responsibilities of the Board of Directors, Corporate Governance and Sustainability Committee Charter, and Risk Management Committee Charter

1.3 Skill Set and Competencies

The CGSC and RMC comprise directors with relevant expertise in the power industry, innovation and sustainability management, supporting effective oversight of climate-related strategies, risks and opportunities. GPSC also provides ongoing competency development covering climate strategy, emerging climate trends, carbon markets and energy attribute certificates.This is reflected in their Board Skill Matrix.

GPSC encourages our directors to consistently enhance their performance efficiency by undergoing competency development training. This training encompasses climate-related strategies, risks, and opportunities, climate change-related trends and opportunities, carbon credits, and energy attribution certificates and is available for all committee members.

1.4 GPSC Prioritizes Climate Action Through Robust Governance

The Corporate Governance and Sustainability Committee and the Risk Management Committee (The Committee) are dedicated to actively promoting, strongly supporting, and decisively approving sustainable development initiatives. This commitment also includes endorsing outcomes derived from comprehensive climate-related risk and opportunity assessments, which include sturdy mitigation and adaptation plans.

1.4.1 Integrated Management Approach

Climate-related risks and opportunities are integrated into GPSC's enterprise risk management and strategic planning processes. Assessment results, mitigation and adaptation measures, and progress against climate targets are periodically reviewed to inform strategic and investment decision-making.

Governance

IFRS Sustainability

Climate Governance Structure

Management accountability for translating climate strategy into targets, actions and performance.

1.4.2 Strategic Alignment

Climate-related risks and opportunities are integrated into GPSC's strategic planning and decision-making processes. Climate objectives and targets are translated into business and functional plans, with progress monitored through relevant performance indicators to support alignment with the Company's long-term climate ambition.

Management Accountability
Climate-related performance indicators are incorporated into relevant management performance assessments to reinforce accountability for achieving GPSC's climate objectives and targets.

2. Management Level

Executive accountability for climate strategy, implementation and performance.

2.1 The Roles and Responsibilities

2.1.1 Management Committee

The Management Committee oversees the implementation of climate-related policies, strategies and action plans and considers climate-related risks and opportunities in key business and investment decisions. The Committee also provides direction on low-carbon investments, technologies and other decarbonization initiatives.

2.1.2 GPSC Climate Change Strategy Committee (GCSC)

The GPSC Climate Change Strategy Committee (GCSC) is an executive-level committee responsible for driving GPSC Group's climate strategy and transition. Its responsibilities include establishing climate-related targets and action plans, monitoring GHG reduction performance, overseeing mitigation and adaptation measures, and evaluating climate-related technologies and initiatives.

2.2 Progress Reporting to the Committee

Climate-related progress and performance are reported to the CGSC and RMC at least quarterly and to the Board of Directors at least annually.

3. Operational Level

3.1 The Roles and Responsibility

3.1.1 Climate Change Strategy Sub-Task Force

The Climate Change Strategy Sub-Task Force supports the GCSC by executing cross-functional climate initiatives and translating strategic direction into operational actions. Its responsibilities cover climate strategy, GHG management, climate finance, technology assessment and stakeholder communication.

In addition, the Climate Change Strategy Sub-Task Force comprises six sub-task forces. The roles and responsibilities of these entities are as detailed below.

3.1.1.1 Climate Policy & Strategy Sub-Task Force

- Analyzes physical and transition climate risks, develops response strategies and targets, and coordinates mitigation and adaptation actions across relevant functions.

Climate Governance Structure

3.1.1.2 GHG Account Sub-Task Force

- Develops GHG accounting methodologies, manages emissions data and supports transparent climate and ESG reporting in accordance with relevant standards.

3.1.1.3 Climate Finance Sub-Task Force

- Assesses the financial implications of climate change through scenario analysis and evaluates climate-related financial mechanisms, carbon pricing and regulatory developments to support strategic decision-making.

3.1.1.4 Innovation & Technology Sub-Task Force

- Assesses emerging low-carbon technologies and coordinates relevant information to support decarbonization strategies and investment planning.

3.1.1.5 REC and Carbon Credit Management Sub-Task Force

- Monitors REC and carbon market developments and manages related registration, trading and market opportunities to support GPSC's decarbonization strategy.

3.1.1.6 PR & Communication Sub-Task Force

- Promotes climate awareness and communicates GPSC's climate initiatives and performance to internal and external stakeholders.

More details about GPSC' Climate Change Management Structure can be found at Clean Energy Towards Net Zero | Global Power Synergy Public Company Limited (GPSC) (gpscgroup.com)

4. Monetary Incentives

GPSC integrates climate-related performance into its performance management and incentive framework to strengthen accountability for delivering the Company's climate objectives. Relevant climate-related KPIs apply to the Chief Executive Officer, executives and employees, with monetary incentives linked to performance against applicable targets. These KPIs support GPSC's decarbonization strategy and long-term ambition to achieve Net Zero emissions by 2050.

Climate-related KPIs cover GHG emissions reduction, energy efficiency, renewable energy growth and other strategic initiatives supporting the energy transition. Performance against applicable KPIs is assessed through the Company's performance management process.

Table 1: Monetary Incentives

Employee Level	Type of Incentive*	Climate-Related KPIs
Chief Executive Officer (CEO)	Monetary	- Energy efficiency improvement (Focus on CO_2 reduction) - Renewable MWe Growth
Executive Officer	Monetary	- Energy efficiency improvement (Focus on CO_2 reduction) - Additional MW growth - Renewable MWe Growth - Strategic decarbonization initiatives
Employee	Monetary	- Energy efficiency improvement (Focus on CO_2 reduction) - New business development/ New investment (S3 and S4 Strategies) - Renewable MWe Growth - GPSC Climate Change Strategy Committee (GCSC) & Sub-task force - Low-carbon initiatives

Note: * types of incentive consist of monetary, recognition (non-monetary), and other (non-monetary rewards).

3 IFRS S2: Strategy

Climate-Related Risks & Opportunities

1. GPSC Climate-Related Risks and Opportunities

GPSC Prioritizes Climate Action Through Comprehensive Assessment

GPSC identifies and assesses climate-related risks and opportunities across its operations and value chain to understand their potential impacts on the Company's business model, strategy and financial performance. The assessment considers physical and transition risks across short-, medium- and long-term time horizons and informs strategic planning, risk mitigation, adaptation and investment decision-making.

Short-term	Medium-term	Long-term
≤ 3 years	>3–10 years	>10 years

Climate-related risks can be grouped into physical and transition risks. In order to evaluate the level of impact of each risk across GPSC's operations and value chain, a third-party experts was consulted. This evaluation was done for different scenarios that align with Shared Socioeconomic Pathways (**SSP1-2.6 and SSP5-8.5**) for physical risks. The assessment includes value chain activities in Thailand, India, Lao PDR, and Taiwan. Transition risks were evaluated by identifying potential low economy transition risks and analyzing their impact on GPSC's business areas and value chain impacts. All transition risks were assessed under two scenarios, **IEA STEPS and NET Zero 2050**. Both physical and transition risks were projected for **two timeframes: medium-term 2030 and long-term 2050**. The dataset that supports the physical and transition risk assessments includes information about **current conditions** and **forecasts of future conditions**, specifically for GPSC businesses. The results of GPSC's climate-related risks and opportunities were assessed **according to the Industry-based Guidance on Implementing IFRS S2 – Volume 32 Electric Utilities & Power Generators**.

The risks and opportunities related to climate change were discussed with internal stakeholders with the necessary expertise to provide a well-rounded perspective in the context of GPSC's businesses. The climate change strategy was then consulted to connect the ideas throughout the business and identify the risks and opportunities. Strategic decisions were made using the linkage between the climate-related risks and opportunities for planning, such as risk management systems, target setting, work plans, etc.

1.1 Physical Risks and Opportunities

GPSC identified climate-related physical risks and potentially affected areas by conducting a high-level "hotspot" qualitative assessment of the potential business implications of each risk, using specialized tools and consultation with external experts. Additionally, GPSC has developed measures that can be taken to address identified risks and seize opportunities. Physical risk assessment covered **nine climate hazards** related to climate change impacts: Extreme Heat, Extreme Cold, River Flooding, Extreme Rainfall Flooding, Water Stress, Drought, Coastal & Offshore, Extreme Winds & Storms, and Wildfire, as described in **Table 6** and **Figure 5**.

Figure 5: Nine climate hazards covered in physical risk assessment

1.1.1 Scope of Assessment

The scope of the assessment covers the assets of GPSC Group's own operations for **6 types of power plant technologies: 1. Cogeneration, 2. Coal-Fired, 3. Solar, 4. Wind, 5. Hydro, and 6. Waste-to-Energy (WtE) Power Plants.** These assets generate high revenue and have a significant financial impact on the business. The assessment also covers relevant value chain exposures, including upstream assets (natural gas and coal) and downstream assets (key customers).

The assessment analyzed total **54 assets** comprising **51 GPSC Group's operation assets in Thailand and overseas**, along with **2 upstream assets and 1 downstream asset** with a significant financial impact on the business. The names of these assets are listed in **Tables 2, 3,** and **4**, respectively.

Climate-Related Risks & Opportunities

Table 2: GPSC's own operation assets covered by climate-related risk assessment.

(Number) Type of Asset	Name	Location
26 Cogeneration Power Plants	Central Utility Plant 1, 2, 3, 4 (CUP1, CUP2, CUP3, CUP4)	Rayong
	Glow SPP 11 Project 1, Project 2, Project 3	
	Glow Energy Phase 1, Phase 2, Phase 4, Phase 5	
	Glow Energy CFB3	
	Glow SPP2, SPP3*	
	IRPC Clean Power Company Limited (IRPC-CP) Phase 1, Phase 2	
	Electricity Generating Unit ERU (Under Construction)	Chon Buri
	Sriracha Power Plant (SRC)	
	Glow IPP Power Plant (GIPP)	
	Nava Nakorn Electricity Generating Company Limited (NNEG)	Pathum Thani
	NNEG Expansion and Expansion 2	
	Combined Heat and Power Producing Company Limited (CHPP)	Bangkok
	Bang Pa-In Cogeneration Company Limited (BIC-1, BIC-2)	Ayutthaya
	Ratchaburi Power Company Limited (RPCL)	Ratchaburi
2 Coal-Fired Power Plant	GHECO-One	Rayong
	Glow Energy CFB3	
17 Solar Power Platforms	Combined Heat and Power Producing Company Limited (CHPP) Solar	Chanthaburi
	Siam Solar Energy 1 Company Limited (SSE1)	Kanchanaburi
	Siam Solar Energy 1 Company Limited (SSE1)	Suphan Buri
	N.P.S. Stargroup Company Limited (NPS2)	
	Glow Energy Solar Power Plant	Rayong
	N.P.S. Stargroup Company Limited (NPS1) World X Change Asia Company Limited (WXA1, WXA2, WXA3)	Phichit
	N.P.S. Stargroup Company Limited (NPS3)	Lop Buri
	P.P. Solar Company Limited (PPS1, PPS2, PPS3)	Khon Kaen
	Sheng Yang Energy Company Limited (SYE)	Taiwan
	Avaada Energy Private limited (AEPL) 1-7	India
3 Hydro Power Plants	Houay Ho Power Company Limited (HHPC)	Lao PDR
	Nam Lik 1 Power Company Limited (NL1PC)	
	Xayaburi Power Company Limited (XPCL)	
1 Wind Power Plant	CI Xidao Limited (CFXD)	Taiwan
2 Waste-to-Energy Power Plants (WtE)	Rayong Waste-to-Energy (WTE) Plant	Rayong
	Chonburi Clean Energy Company Limited (CCE)	Chon Buri

Remark:
*Glow SPP3 is a hybrid natural gas and coal-fired combined-cycle cogeneration, which is different from GPSC's other cogeneration power plants that mainly use natural gas.

Climate-Related Risks & Opportunities

Table 3: GPSC's Upstream (Raw Material Suppliers) assets covered by climate-related risk assessment

Upstream (Raw Material Suppliers)	Location
Avra International DMCC	Indonesia
Banpu Minerals Company Limited	Indonesia
Avra International DMCC	Indonesia
Log Plus Mining Services Company Limited	Indonesia
PTTEP (S1 Project (Sirikit))	Kamphaeng Phet

Table 4: GPSC's Fossil Fuel Power Plant & Downstream assets covered by climate-related risk assessment

Fossil Fuel Power Plant & Downstream	Location
Map Ta Phut Industrial Estate, Rayong	Rayong

1.1.2 Climate Scenarios

GPSC conducted a physical climate risk assessment using two Shared Socioeconomic Pathways (SSPs) developed by the Intergovernmental Panel on Climate Change (IPCC): SSP1-2.6 and SSP5-8.5 (**Table 5**). The SSPs are formulated using the most recent climate science and incorporate qualitative predictions of societal features, quantitative economic development measures, and climate data to reflect potential changes in global GHG emissions, energy use, air pollution control, land use, and other related factors.

The assessment considers future time horizons, with the medium-term and long-term frames defined as 2030 and 2050, respectively. These milestones are internationally recognized as key targets for managing climate change. The Enterprise Risk Management (ERM) and strategy formulation processes have integrated these timeframes, including the analysis of financial impacts. The climate scenario analysis was reviewed and updated during the FY2025 reporting period to ensure that the assessment remains relevant to GPSC's current risk profile, business context, and strategic planning.

Analysis Approach: Qualitative and Quantitative Scenario Analysis

Table 5: Climate Scenarios Used in Physical Risk Assessment

Climate Scenarios	Description	Estimated Increase in Temperature by 2100
SSP 1-2.6	A Low emissions scenario that stays below 2°C warming by 2100, aligned to current commitments under the Paris Agreement.	1.8°C
SSP 5-8.5	High-emissions scenario following a 'business as usual' trajectory, assuming no additional climate policy and GHG emissions are projected to triple by 2100.	4.4°C

SSP1-2.6 and SSP5-8.5 were selected to assess GPSC's resilience across contrasting climate futures, ranging from a lower-emission pathway with stronger climate mitigation to a high-emission pathway with more severe physical climate impacts.

Climate-Related Risks & Opportunities

1.1.3 Physical Risk Assessment Methodology

1. **Asset Inventory:** Gather information on the location of assets across the value chain, including own assets, downstream assets, and upstream assets.

2. **Climate Hazard Mapping:** Collect relevant climate hazard data for each asset location and standardize the data to ensure consistency and comparability across locations.

3. **Exposure Assessment:** Assess each asset's exposure and vulnerability to relevant climate hazards, considering the specific business activities at each location and how they may be affected by climate-related events. Assets with higher exposure or vulnerability are assigned higher exposure ratings.

4. **Risk Scoring:** Apply a risk-scoring approach combining climate hazard data with asset-level exposure ratings to determine the susceptibility of specific business activities at each location. The assessment is conducted across different time horizons to provide insights into how climate risks may evolve over time.

Table 6: Climate Hazards and Associated Indicators and Units

Climate Hazard	Scenario Indicator(s)	Unit	Data resolution
Extreme Cold	Cold Spell Duration Index	Days	~55 km
Extreme Heat	Warm Spell Duration Index (WSDI)	Days	~55 km
River Flooding*	Riverine Flooding Inundation Depth	Metres	90m
Extreme Rainfall Flooding	Pluvial Flooding Inundation Depth	Metres	90m
Coastal Flooding	Coastal flooding inundation depth	Metres	1 km
Extreme Winds & Storms	Maximum tropical cyclone wind speed	Knots	~25 km
Rainfall-induced Landslides	Rainfall-Induced Landslides Index	Number of days with a potential chance of a landslide event	~1 km
Water Stress & Drought	Water Stress**	*By category*	*HydroBASINS sub-basins*
Wildfires	Forest Fire Danger Index (future)	Number of days with fire-permitting climatic conditions	~55 km
	Maximum burned area (historical)	Square kilometers	~5.5 km

Remark:
*The riverine (fluvial) hydraulic models use estimates of extreme streamflow (discharge) for every river, whilst the extreme rainfall (pluvial) model uses estimates of extreme rainfall.
**Definition of water stress based on WRI Aqueduct 4.0: an indicator of competition for water resources and is defined informally as the ratio of demand for water by human society divided by available water.

Climate-Related Risks & Opportunities

1.1.4 Physical Risk Assessment Result- Qualitative Analysis

The physical risk assessment identifies water stress, drought, and extreme heat as the most significant climate hazards across GPSC's power generation portfolio. Cogeneration, Coal-fired, Solar, and Waste-to-Energy power plants show relatively higher exposure, particularly in water-stressed locations. These risks may intensify over time due to rising temperatures, changing precipitation patterns, and increasing competition for freshwater resources.

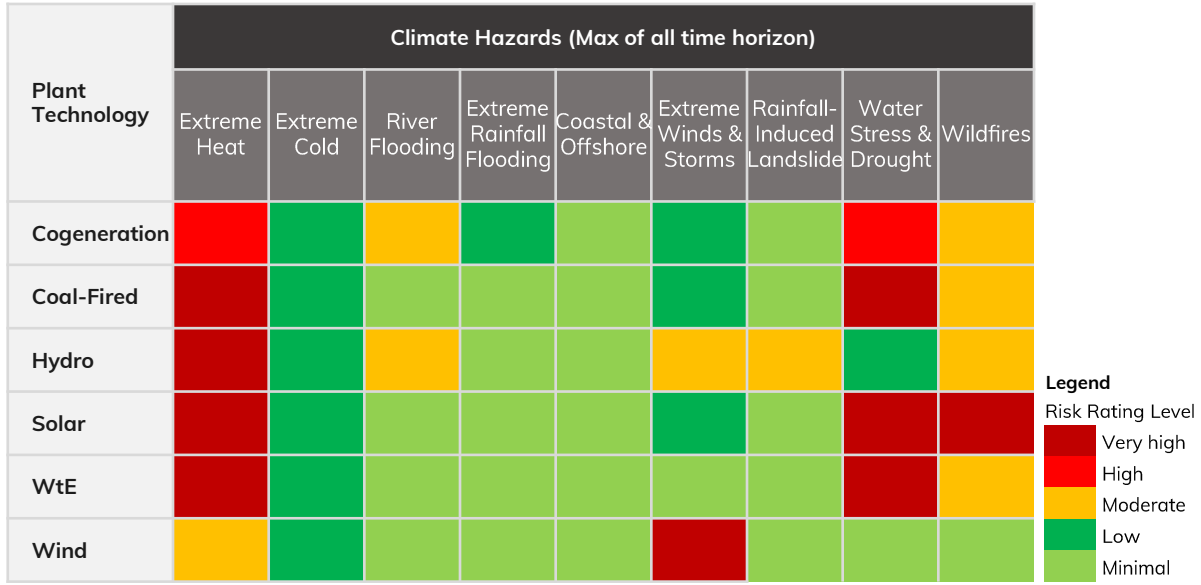


Figure 6: Physical Climate Risk Hotspots by Power Plant Technology

Summary of Key Findings

1. Water stress, drought, and extreme heat are significant climate hazards across several technologies, particularly **Cogeneration, Coal, Solar, and Waste-to-Energy power plants**. For assets located in Rayong and Chonburi, limited access to alternative freshwater sources and competition for water resources may increase exposure to water-related risks. Solar platforms in India may also be affected by more erratic monsoon patterns.

2. The **Cogeneration Power Plant and Coal-Fired Power Plant** are expected to face a significant risk from water stress, drought, and extreme heat due to limited water resources. This could result in operational challenges, particularly in the reduced cooling system capacity, which relies heavily on water as a coolant and may lead to potential downtime. Additionally, water stress and drought in industrial estate regions with high demand for industrial water may contribute to water scarcity and subsequent increases in water expenses.

3. **Solar Platforms'** operational efficiency and electrical output may be adversely impacted by drought and extreme heat due to the decreased water availability for panel cleaning. This is particularly concerning when the panels are soiled, as solar panels exhibit optimal efficiency in converting sunlight into electricity at moderate temperatures, typically around 25°C. Prolonged exposure to temperatures exceeding this optimal range can reduce power output by 10% to 25%.

4. **Waste-to-Energy (WtE)** plants require much less water than natural gas Power Plants, mainly using water for ash quenching, boiler steam cleaning, and flue gas scrubbing. The water used in WtE plants has no direct impact on electricity generation. Therefore, power output is less likely to be significantly reduced even with water restrictions. However, water stress can still pose challenges for WtE plants, as drought conditions and water source regulations may lead to higher costs for treating wastewater before discharge.

Climate-Related Risks & Opportunities

5. For the upstream value chain (natural gas supply), the assessment indicates that the PTTEP S1 Project – Sirikit in Kamphaeng Phet Province may face high exposure to water stress, drought, and extreme heat Natural gas exploration uses substantial water, particularly during hydraulic fracturing (fracking). Water stress and drought conditions could limit water availability for these activities, potentially slowing down exploration and development of new gas fields. Additionally, water is often injected back into the wells during natural gas production to maintain pressure and enhance extraction efficiency. Water scarcity could hinder this process, leading to reduced gas production or even temporary shutdowns. Ultimately, this could impact the natural gas supplied to GPSC Group's natural gas Cogeneration Power Plants, affecting electricity production processes.

6. For the **value chain's downstream asset**, the Map Ta Phut Industrial Estate in Chon Buri and Rayong provinces is susceptible to water stress, drought, and extreme heat due to high industrial demands and its coastal location, which limits access to alternative water sources. Furthermore, many manufacturers in the estate rely on electricity from GPSC Group's natural gas power plants, which are also potentially affected by water scarcity. This situation may disrupt customers' operations and consequently affect electricity demand and revenue from power sales.

Overall, water stress and drought represent the most significant physical climate risks to GPSC Group's operations and value chain. Corresponding mitigation and adaptation measures are presented in the **"Management Approach" section on page 18.**

1.1.5 Quantitative Analysis of Physical Risks

Financial Implication

The initial physical risk assessment identified Coal-fired, Solar, and Waste-to-Energy power plants as relatively more exposed to physical climate hazards. However, when financial materiality was considered based on each technology's contribution to GPSC Group's revenue, Natural Gas Cogeneration Power Plants were prioritized for further quantitative financial assessment due to their significant revenue contribution and exposure to water-related risks.–

Natural Gas Cogeneration Power Plants account for approximately 77% of total revenues generated from the six assessed power plant technologies, compared with Coal-fired (21%), Solar (0.17%), and Waste-to-Energy (0.34%). The physical risk assessment was therefore recalibrated by incorporating revenue contribution to reflect the relative financial significance of each technology. The resulting risk profile is presented in **Figure 7.**

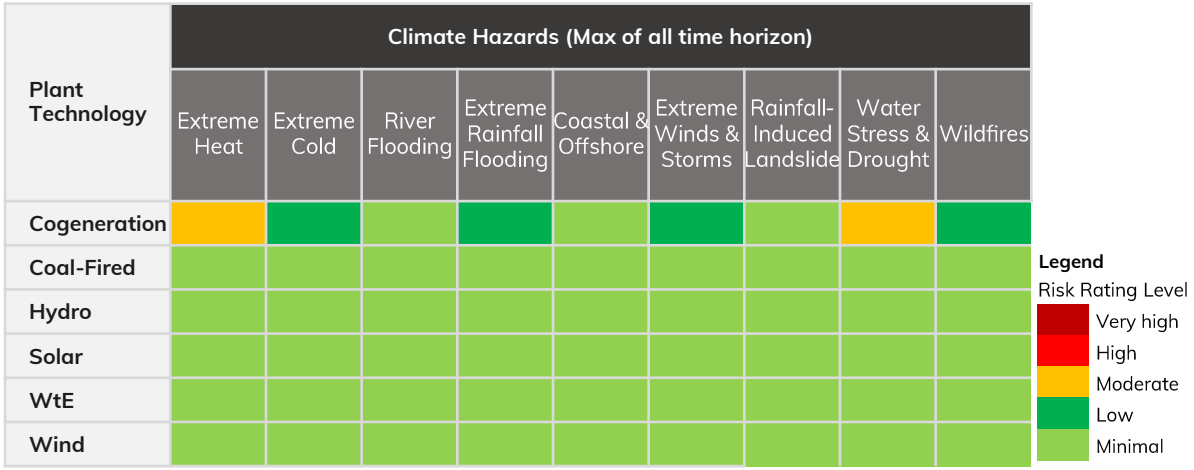


Figure 7: Recalibrated Physical Risk Hotspots Considering Financial Materiality

The reassessment results reveal that the Cogeneration Power Plant faces a moderate risk from water stress, drought, and extreme heat, as opposed to the initial evaluation. While the risk associated with extreme heat is comparatively lower than that of water stress and drought, these factors continue to exert the most significant impact on GPSC Group's operations when juxtaposed with other potential hazards. Following the recalibration, Natural Gas Cogeneration Power Plants remain exposed to water stress, drought, and extreme heat, with water-related risks representing the most financially relevant physical climate hazards. A quantitative financial assessment was therefore conducted to evaluate potential impacts arising from constrained water availability, drought conditions, extreme heat, and associated operational disruptions.

Climate-Related Risks & Opportunities

Under extreme water scarcity conditions, Cogeneration Power Plants in Rayong and Chonburi may face operational disruption or temporary shutdown due to limited water availability. This could result in additional costs for securing alternative water sources, including seawater desalination using reverse osmosis (RO), to maintain operational continuity.

Potential Financial Implications

The potential cost of managing water stress and drought was assessed for GPSC Group's major Cogeneration Power Plants in the Map Ta Phut area, including GPSC CUP and Glow SPP. Water scarcity may require the procurement of alternative water supplies, increasing operating costs. In more severe cases, additional expenditure may be required for backup electricity from PEA/EGAT to maintain operational continuity and reduce the risk of prolonged shutdowns.

Management Approach

- **Operational Resilience**

Maintain emergency water reserves and backup electricity supply to support continuity during water shortages.

- **Alternative Water Supply**

Secure alternative water sources and assess desalination or mobile reverse osmosis systems under severe water scarcity conditions.

- **Water Efficiency & Circularity**

Reduce freshwater dependency through water conservation, reuse and recycling in accordance with GPSC's Energy Efficiency in Climate Strategy.

- **Long-Term Adaptation**

Monitor local water availability, collaborate with relevant authorities, and assess long-term infrastructure solutions such as water storage and rainwater harvesting.

For the upstream value chain, water stress and drought may affect natural gas production and potentially constrain fuel supply to GPSC's Cogeneration Power Plants. GPSC therefore seeks to enhance natural gas utilization efficiency while exploring advanced technologies and renewable energy expansion to reduce long-term dependency and strengthen portfolio resilience. **See pages 26 and 28–29 for further details on GPSC's Business Strategy and Climate Strategy.**

In extreme situations, temporary seawater desalination using mobile reverse osmosis (RO) systems can be utilized. Moreover, monitoring local water availability, collaborating with the government to expand the water supply infrastructure in the Map Tha Put Industrial Area, and even acquiring wastewater from other facilities for treatment and cooling purposes are all strategies that can contribute to a robust water management plan.

Moreover, as previously indicated, the upstream natural gas provider was identified as being highly susceptible to water stress and drought that detrimental impact on various facets of the natural gas production chain, which in turn could potentially affect the overall output and supply stability. Consequently, this situation may impede the electricity production of GPSC's Group natural gas Cogeneration Power Plant. As a result, GPSC may need to enhance the overall natural gas utilization rate through the implementation of advanced technologies and the expansion of operating capacity in renewable power plants, as delineated in the **S2 Scale-up Green Energy in GPSC Group's Business Strategy** (**see pages 26 and 28-29**) as well as **Energy Efficiency and Growth Renewables in Climate Strategy**.

Furthermore, to address the impact of water scarcity on GPSC's downstream operations, particularly the Map Ta Phut industrial estate, which relies on electricity supplied by GPSC Group, GPSC has been actively engaging with key clients in this industrial estate area through regular monthly or quarterly meetings. These meetings are designed to monitor and report on energy demand plans, readiness plans, and maintenance plans. Additionally, GPSC oversees the progress of problem-solving initiatives and utilizes the Energy Lens Application for real-time monitoring of energy and steam consumption, including record tracking. Moreover, these interactions encompass the handling of monthly expense reports and communication manuals.

See more details about the quantification analysis of physical risk in **Table 7.**

Strategy

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Climate-Related Risks & Opportunities

Table 7: Quantitative Assessment of Physical Climate Risk and Financial Implications

Risk Rating Level: Very high | High | Moderate | Low | Minimal

Physical Risks	Risk Rating Level* – Time Horizon: 2030 SSP1-2.6	2030 SSP5-8.5	2050 SSP1-2.6	2050 SSP5-8.5	Impact Areas	Business Implications	Financial Implication (Average estimated time frame: 5 years)	Management measure and adaptation plan (Less than 5 years of implementation timeline) (Existing and New Operations: 100% coverage)	Cost response and timeline to response
Water Stress & Drought					Cogeneration Power Plants and Upstream	• Water scarcity can constrain the plant's capacity to maintain optimal cooling temperatures, potentially resulting in reduced electricity generation to prevent overheating and in extreme cases, plants may be required to shut down entirely to prevent damage. • Drought can intensify the competition for industrial water within the Map Ta Phut industrial estate, where GPSC's Cogeneration Power Plants are situated, resulting in escalated water expenses. • Water scarcity may impact GPSC's water supplier, leading to insufficient water resources for GPSC and driving up the cost of alternative water sources. • Water scarcity can result in seawater intrusion in coastal areas due to the lack of a freshwater barrier, leading to increased costs of seawater reverse osmosis (RO).	739 Million THB	• Install backup electricity from PEA/EGAT to maintain capability during emergencies. • Secure alternative sources such as demineralized water from other suppliers and consider long-term solutions such as constructing water storage ponds or rainwater harvesting systems. • Reduce water consumption. • Increase water circularity (reuse/recycle) in line with Energy Efficiency in GPSC Group's Climate Strategy. • Monitor local water availability and collaborate with the government to expand the water supply infrastructure in the Map Tha Put Industrial Area. • Acquire wastewater from other facilities for treatment and cooling purposes are all strategies that can contribute to a robust water management plan.	27 Million THB

Remark:
Risk ratings reflect the recalibrated physical risk assessment incorporating plant-level equity share and revenue contribution to account for financial materiality..

Climate-Related Risks & Opportunities

1.2 Transition Risks and Opportunities

To assess transition risks and opportunities, GPSC conducted a structured assessment considering factors associated with the transition toward a low-carbon economy, including potential impacts on corporate entities and business activities. The assessment was supported by specialized tools, external experts, and relevant datasets from the IEA World Energy Outlook.

1.2.1 Climate Scenarios

A transition risks and opportunities assessment was conducted using the International Energy Agency's (IEA) World Energy Outlook climate scenarios, including the **stated policies scenario (STEPS) and the net-zero emissions by 2050 scenario (NZE)** (**Table 8**). These scenarios provide a detailed analysis of the various levels of efforts that nations have made to transition towards a low-carbon economy. GPSC considered the risks and opportunities under the selected scenarios throughout our business value chain, including our own operations and upstream and downstream activities.

In alignment with the physical risk assessment, the **medium-term and long-term** time horizons for transition risk assessment are **2030 and 2050**, respectively.

Table 8: Climate Scenarios Used in Transition Risk Assessment

Climate Scenarios	Description	Estimated Increase in Temperature by 2100
NZE	A pathway for the global energy sector to achieve net zero CO_2 emissions by 2050, consistent with limiting global warming to approximately 1.5°C.	1.5°C
STEPS	A pathway reflecting existing and stated policy settings, resulting in an estimated temperature increase of approximately 2.4–2.8°C by 2100.	2.4-2.8°C

NZE and STEPS were selected to assess GPSC's resilience across contrasting transition pathways, ranging from an accelerated low-carbon transition to a pathway reflecting current and stated policy settings.

1.2.2 Transition Risk Assessment Methodology

1. **Transition Driver Identification:** Determine drivers that exert pressure on or create opportunities for GPSC's transition to a low-carbon economy, as shown in **Figure 8**.

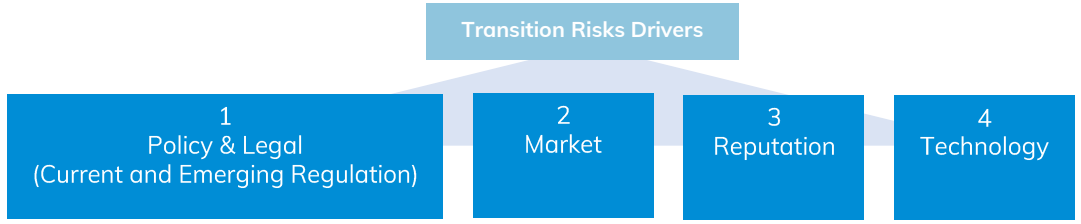


Figure 8: Four drivers considered in transition risk and opportunities assessment

2. **Risk and Opportunity Weightings:** Assess the likelihood and impact levels on the company for each driver based on internal comprehensive judgment, which is then calculated into internal risk and opportunity weightings. Subsequently, transition drivers and associated risk and opportunity weightings are analyzed based on external data under climate scenarios across different timeframes to generate comprehensive risk and opportunity weightings.

3. **Heatmap for Prioritization:** Create a heatmap by combining internal and external factors to identify key "hotspots" (areas with the highest potential risk or opportunity) that require further in-depth assessment and appropriate response measures.

Climate-Related Risks & Opportunities

1.2.3 Transition Risk and Opportunity Assessment Results – Qualitative Analysis

The transition risk assessment identifies mandatory carbon pricing as one of GPSC's most significant transition risks, with the potential impact increasing over the medium and long term. The risk is particularly relevant to fossil fuel-based generation, especially Cogeneration and Coal-fired Power Plants, due to their direct GHG emissions. The introduction or strengthening of carbon pricing mechanisms could increase operating costs and affect the competitiveness and financial performance of carbon-intensive assets.

This risk is expected to increase as Thailand strengthens its climate policy framework and develops market-based mechanisms to support national decarbonization objectives.

The transition assessment also identifies opportunities arising from supportive policies, market incentives, carbon markets and growing demand for lower-carbon energy solutions. GPSC seeks to capture these opportunities through renewable energy expansion, portfolio optimization, energy efficiency, energy storage and the assessment of emerging low-carbon technologies. These initiatives support the Company's transition toward Net Zero 2050 while creating opportunities for sustainable business growth..

Transition Risk/ Opportunity Description	Risk/ Opportunity	Renewable			Cogeneration and Coal-Fired			Waste-to-Energy			GPSC*		
		Risk & Opportunity (NZE – STEPS)**											
		2026	2030	2050	2026	2030	2050	2026	2030	2050	2026	2030	2050
Mandatory carbon pricing	Risk												
Policy change, incentives and carbon market	Opportunity												
Investment and business model	Risk												
Demand change	Risk												
Enabling clean energy technologies	Opportunity												
Technology modernization and operational risks	Risk												
Technology innovation and integration with other renewables	Opportunity												

Remark:
*Averaged transition risks and opportunities of Renewable (Hydro, Solar, Wind), Cogeneration, Coal-Fired, and Waste-to-Energy with weight factor based on revenues generated by each group of plant technology.
Risk and opportunity scores reflect differences in assessed outcomes between the NZE and STEPS scenarios.* 2026, 2030 and 2050 represent short-, medium- and long-term assessment horizons, respectively.

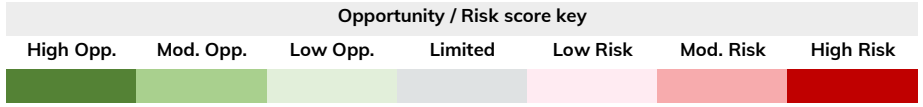


Figure 9: Transition Risk and Opportunity Hotspots by Technology and Time Horizon

Climate-Related Risks & Opportunities

Summary of Key Findings

1. The significant impact of **mandatory carbon pricing** remains the most significant transition risk for GPSC, particularly for Cogeneration Power Plants, which account for approximately 77% of electricity generation revenue and are directly exposed to carbon pricing due to their Scope 1 GHG emissions.

2. In addition, the subsequent high risk to GPSC across time horizons is **technology transition and operational risk**, with the highest level of risk projected for the year 2050. This potential risk is poised to impact GPSC's Cogeneration Power Plants substantially. As market dynamics and consumer demands progressively shift to prioritize heightened efficiency and environmental standards, the outdated GPSC's Cogeneration Power Plant will likely encounter diminishing demand from industrial users and utility providers, leading to a potential decline in the plant's revenue.

3. In the medium term (2030), the GPSC Group's Cogeneration Power Plant, primarily reliant on natural gas, stands to benefit significantly from **policy changes, incentives, and the carbon market**. In the long term, GPSC expects to benefit from the growing demand for lower-carbon energy solutions, supported by renewable energy expansion, energy efficiency improvements, energy storage, and other emerging low-carbon technologies. These initiatives align with GPSC's long-term transition strategy and Net Zero 2050 ambition.

4. In the medium term (by 2030), Growing electricity demand associated with the energy transition may create opportunities for efficient and lower-carbon power generation, particularly where reliable energy supply remains essential. In this rapidly changing energy landscape, natural gas is emerging as the fastest-growing energy source, presenting a significant opportunity for GPSC Group's natural gas Cogeneration Power Plants.

Ultimately, transition risk regarding market carbon pricing and transition opportunities related to policy changes, incentives, and the carbon market pose the most significant impact on the GPSC Group's business. As a result, the mitigation and management plans are detailed in the **"Management Approach" section on page 23**.

1.2.4 Quantitative Analysis of Transition Risks

Financial Implication

Mandatory carbon pricing was identified as the most financially material transition risk due to its potential impact on carbon-intensive power generation assets. The assessment indicates that Cogeneration Power Plants contribute the largest share of electricity generation revenue while also generating the highest Scope 1 GHG emissions, making them the most financially exposed assets under future carbon pricing mechanisms.

The financial assessment applies GPSC's internal carbon price of USD 15/tCO_2e (approximately THB 515.81/tCO_2e) to estimate the potential financial implications of future carbon pricing under the assessed transition scenarios.

Implication Cost for Management

Carbon Reduction (details on pages 26-27 and 30).
- Energy efficiency projects
- Renewable energy projects
- Fuel switching

Carbon Market
- T-VER participation (details on page 47)
- Carbon credit management

Operational Improvement
- Energy management
- Process optimization
- Low-carbon investment

Climate-Related Risks & Opportunities

Management Approach

To reduce the potential cost of carbon price, GPSC Group plans to support GPSC's Climate Strategy and Thailand's climate transition by allocating the budget towards renewable energy expansion in line with GPSC Group' Business Strategy: S2 Scale-up Green Energy that aims to increase renewables-based electricity production capacity at least 50% by 2030 (**details on pages 26 and 28-29**), setting an internal carbon price at rate 15 USD/ tCO_2e (**details on page 47**), and reducing greenhouse gas intensity 35% by 2030. This multi-pronged approach includes incorporating more renewables domestically and internationally, utilizing high-tech upgrades for existing plants, and phasing out coal altogether, in accordance with GPSC Group's Climate Strategy (**details on pages 26-27 and 30**).

1.2.5 Quantification Analysis of Transition Opportunity

Financial Implication

The assessment identified policy changes, market incentives and carbon markets as key drivers of transition opportunities. These developments support GPSC's strategy to expand renewable energy, improve energy efficiency, diversify its generation portfolio and evaluate emerging low-carbon technologies, creating long-term opportunities for sustainable business growth.

Increasing demand for lower-carbon electricity is expected to create long-term revenue opportunities from renewable energy and other lower-carbon generation technologies within GPSC's portfolio.

Implication Cost for Management

The implication cost for management was evaluated to estimate GPSC's anticipated expenditure in managing and mitigating the risks associated with policy change, incentives, and the carbon market. The assessment encompassed analyzing the investment required for emission reduction technologies such as Carbon Capture and Storage (CCS) and Carbon Capture, Utilization and Storage (CCUS), as the expansion of natural gas cogeneration power plants could lead to excessive greenhouse gas emissions. The assessment also included an evaluation of the capital expenditure (CAPEX) necessary for investing in renewable power plants, encompassing solar, hydro, and waste-to-energy (WtE) technologies.

Management Approach

GPSC continues to strengthen its low-carbon portfolio through renewable energy expansion, portfolio optimization, energy efficiency improvement and the evaluation of emerging low-carbon technologies. The Company also continues to enhance customer energy solutions and renewable energy certificate (REC) offerings to support customers' decarbonization goals. (**details on page 27**).

Moreover, GPSC is diversifying its revenue streams while recognizing the evolving needs of its customers. This entails adapting its business model to offer an expanded range of products and services. These renewable commitments extend beyond portfolio diversification, with the current renewable energy share standing at 50% in line with GPSC Group's Business Strategy: S2 Scale-up Green Energy (**details on pages 26 and 29**).

GPSC is contemplating utilizing Renewable Energy Certificates (RECs) to support customer decarbonization and renewable electricity solutions

See more details about the quantification analysis of transition risk and opportunity in **Tables 9 and 10.**

IFRS Sustainability

Climate-Related Risks & Opportunities

Table 9: Quantitative Assessment of Transition Risks and Financial Implications

The assessment prioritizes mandatory carbon pricing as the most financially material transition risk for GPSC.

Transition Risks	Risk & Opps (NZE-STEPS) Time Horizon 2026	2030	2050	Impact Areas	Business Implications	Financial Implication (Average estimated time frame: 5 years)	Management measure and adaptation plan	Cost response and timeline to response
Mandatory carbon pricing				Upstream & Direct operation & Downstream	• Cogeneration Power Plants, which have the largest share of electricity generation capacity, contribute relatively high GHG emissions, and the potential implementation of carbon pricing in Thailand can increase these emissions' costs, resulting in higher operating costs under future carbon pricing mechanisms.	1,766 Million THB	• Study of carbon tax and carbon cap & trade mechanisms. • Invest in CO2-saving initiatives by participating in the Thailand Voluntary Emission Reduction Program (T-VER) to contribute to approximately 582,370 verified credits available for trading on the market. • Decarbonize business through renewable energy expansion, phasing down coal power. • Implement Internal carbon price (15 USD/tCO_2e). • Reduce GHG intensity by 35% in 2030 as compared to 2020.	16,071 Million

Opportunity / Risk score key

High Opp.	Mod. Opp.	Low Opp.	Limited	Low Risk	Mod. Risk	High Risk

GPSC

Climate-Related Risks & Opportunities

Table 10: Quantitative Assessment of Transition Opportunities and Financial Implications

Transition opportunities are expected to strengthen GPSC's long-term competitiveness while supporting portfolio transformation and sustainable growth.

Transition Risks	Risk & Opps (NZE-STEPS) to GPSC Time Horizon 2026	2030	2050	Impact Areas	Business Implications	Financial Implication Average estimated time frame: 5 years)	Management measure and adaptation plan	Cost response and timeline to response
Policy changes, incentives, and the carbon market				Upstream & Direct operation & Downstream	• Growing demand for lower-carbon energy solutions, supportive policy measures and carbon markets create opportunities for GPSC to expand renewable energy generation, diversify its portfolio and develop customer-focused decarbonization solutions.. • Renewable energy expansion, energy storage and other emerging low-carbon technologies are expected to strengthen long-term revenue opportunities while supporting GPSC's Net Zero 2050 ambition.	52,936.86 Million THB	• Establish initiatives such as carbon capture utilization and storage (CCUS). • Implement technology to enhance plant efficiency and lower GHG emissions. • Collaborate with experts to exchange knowledge. • Decarbonize business through renewable energy expansion, phasing down coal power. • Deploy renewable energy, energy storage and other emerging low-carbon technologies such as solar floating, energy storage systems, and smart grids. • Apply for I-REC and carbon credit	38,517 Million THB

Opportunity / Risk score key						
High Opp.	Mod. Opp.	Low Opp.	Limited	Low Risk	Mod. Risk	High Risk

Strategy

IFRS Sustainability

Climate-Related Risks & Opportunities

2. Impacts of Climate-related Risks and Opportunities on Corporate Strategy

2.1 Business Strategy

Climate-related risks and opportunities are integrated into GPSC's corporate strategy and business planning processes. Climate-related risks drive operational resilience, regulatory preparedness and capital allocation decisions, while climate-related opportunities support portfolio transformation, renewable energy expansion and new low-carbon business development.

GPSC's strategic enablers—including operational excellence, innovation, digitalization and stakeholder engagement—support the Company's transition toward a lower-carbon and more resilient business model.

To advance decarbonization, GPSC is committed to increasing the proportion of renewable-based energy production, recognizing this as a key factor in reducing greenhouse gas emissions. In alignment with the S2: Scale-up Green Energy strategy, the company is actively expanding its clean energy projects, focusing on solar and wind energy, and integrating these resources with energy storage systems. GPSC continues to optimize its generation portfolio through disciplined investment management, renewable energy expansion and business transformation. Climate-related risks and opportunities are incorporated into strategic planning to strengthen business resilience, improve long-term competitiveness and support the Company's Net Zero 2050 ambition, as described in **Figures 11** and **12**.

Climate-related risks and opportunities are integrated into investment planning, capital allocation and portfolio optimization to support GPSC's long-term business resilience and value creation.

More details about GPSC'S Business Strategy can be found in GPSC's Integrated Sustainability Report 2025

2.2 Climate Strategy

In response to clean energy trends, which have amplified the role of renewable energy in the electricity business, GPSC has established GPSC's Climate Strategies in response to climate change under the concept of 'Moving towards a Low-Carbon Electricity Business and Net Zero Greenhouse Gas Emissions' through technology and innovation development and the use of internal carbon pricing (ICP) to manage risks and seek new market opportunities to handle impacts of climate change. Besides, Furthermore, GPSC has set targets to achieve Net Zero emissions by 2050 through four key action plans (**Figure 13**), as described below.

Decarbonize Existing Operations

This plan seeks to reduce GHG emissions from electricity production and consists of four sub-plans:

- Adoption of best practices for operational excellence
- Fossil-fuel plant retrofitting
- Fuel and energy consumption reduction
- Internal renewable energy consumption in place of fossil fuels

Accelerate Renewable Energy Expansion

This plan seeks to increase the production of renewable energy and consists of five sub-plans:

- Expand renewable generation through disciplined investment and portfolio optimization.
- Prioritize investments in solar, wind, hydro and other commercially viable renewable technologies.
- Strengthen energy storage and flexible power solutions to support renewable integration.
- Evaluate emerging low-carbon technologies where commercially appropriate.

Climate-Related Risks & Opportunities

Enhance infrastructures

This plan seeks to store and eliminate direct GHGs from fossil fuel-based power production and consists of two sub-plans:

- CCUS integration in existing blue and green hydrogen plants
- CCUS integration in coal/natural gas plants

Trading & Offset

This plan strives to offset excess carbons emitted from production or internal operations and consists of three sub-plans:

- Carbon sinks through nature-based solutions, such as reforestation.
- Obtaining Energy Attribute Certificates (EACs), including Renewable Energy Certificate (REC) trading and Carbon credit trading
- Studying internal carbon pricing to supplement investment decisions in low-carbon technology

For more details about GPSC's Climate Strategy, please visit Clean Energy Towards Net Zero | Global Power Synergy Public Company Limited (GPSC) (gpscgroup.com)

2.3 Net Zero Strategy

To deliver our Net Zero 2050 commitment, GPSC established a pathway towards a Net Zero strategy to guide our journey. Based on climate-related risk and opportunity assessment, the company developed a climate Strategy that is driven by four main strategic areas to deliver holistic outcomes not only to reduce GHG emissions but also to strengthen the business model (risk mitigation) and capture opportunities that may arise in the future (**Figures 10 and 15**), as described below.

Self-Reduction

Continuously implement processes of improvement & optimization to existing fossil-fuel power plants and reduce fuel and energy consumption.

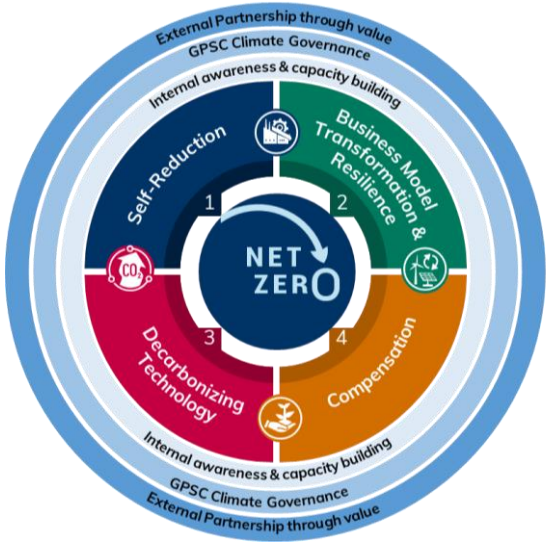


Figure 10: Pathway towards Net Zero and climate strategy to guide journey

Business Model Transformation & Resilience

GPSC continues transforming its portfolio through disciplined investment management, renewable energy expansion and customer-focused energy solutions to strengthen long-term resilience and sustainable growth.

Decarbonizing Technology

Evaluate emerging low-carbon technologies including energy storage, carbon capture, and other technologies supporting the Company's long-term transition.

Carbon Management & Nature-based Solutions

Initiate nature-based solutions (NbS) and generate additional values through participation in Energy Attribution Certifications (EACs).

Key enabling factors have been identified to support these areas, including internal awareness and capacity building, GPSC Climate Governance, and external partnership through value. These key factors involve internal and external stakeholders to strengthen the organization's strategy for achieving Net Zero GHG emissions.

Climate Transition Plan toward Net Zero 2050

GPSC's decarbonization pathway combines operational efficiency, renewable energy expansion, deployment of low-carbon technologies and carbon removals to achieve Net Zero emissions by 2050..

Improve Operational Efficiency (Now–2033)

Reduce operational GHG emissions from existing assets.

Expand Renewable Electricity (2033–2040)

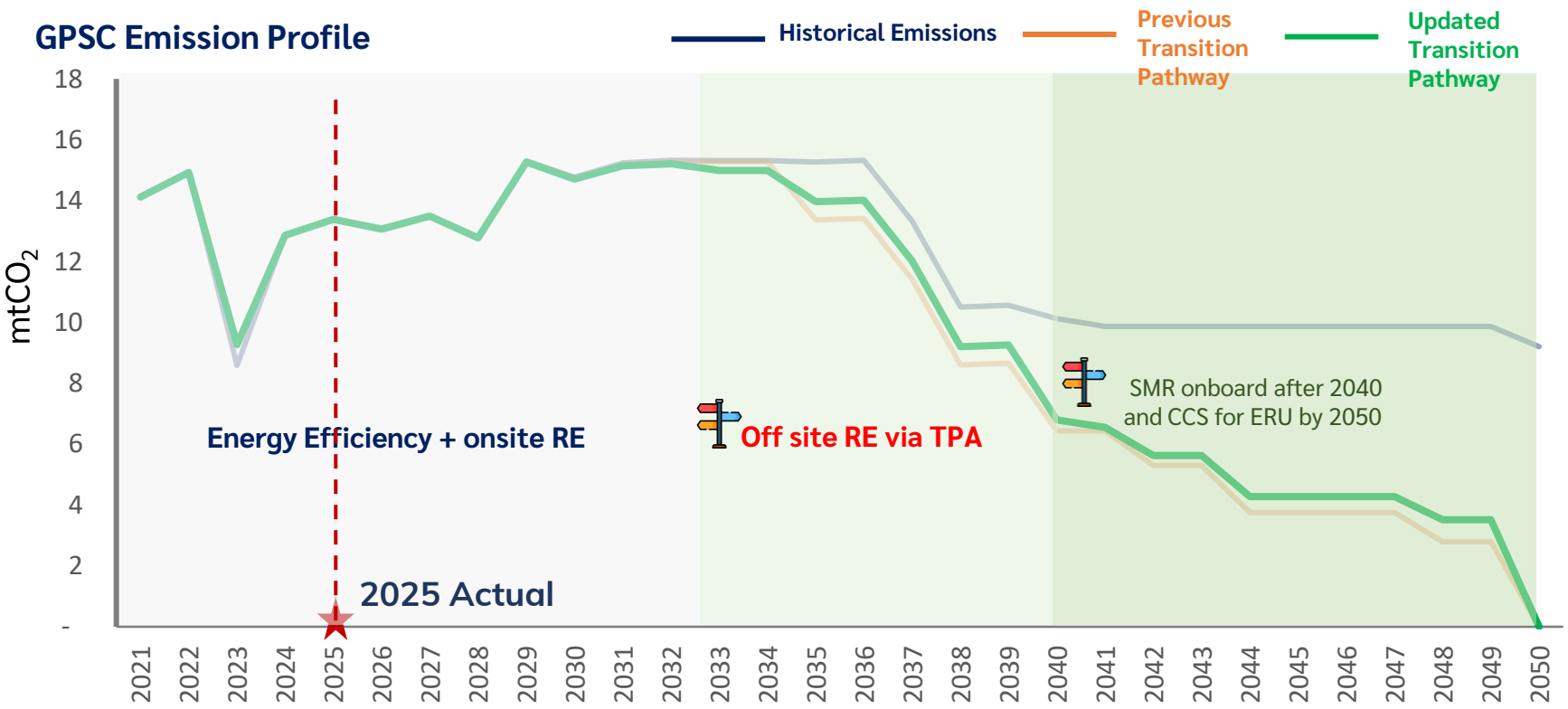
Replace fossil-based electricity with renewable electricity.

Deploy Low-carbon Technologies (2040–2050)

Reduce residual emissions from hard-to-abate operations.

Neutralize Residual Emissions

Address unavoidable residual emissions through nature-based solutions and high-quality carbon removals.



Critical Enablers

- TPA unlocked with competitive wheeling charge
- Carbon Price & Credit Mechanism
- Unlock SMR regulations
- Technology deployment costs (abatement costs)

Period	Key milestone
2025	Operational efficiency improvement
2030	Renewable electricity expansion
2040	Large-scale low-carbon technology deployment
2050	Net Zero emissions achieved

Value Chain Decarbonization

- Low-carbon fuel procurement
- Supplier engagement
- Scope 3 management
- Green logistics

Business Strategy and Corporate Outlook

GPSC Corporate Strategy

Climate-related risks and opportunities are integrated into GPSC's corporate strategy through four strategic pillars that support long-term resilience, portfolio transformation and Net Zero 2050.

Strategic Pillars

S1 — Strengthen and Expand the Core

- Best in class operations
- Customer-centric utility
- Expansion into adjacencies (e.g., water)

S2 — Scale-up Green Energy

- Solar power scale-up
- Wind power entry
- ESS-RE hybrid power

S3 — New S-curve

- Energy storage systems
- EV & Mobility batteries
- New S-curves

S4 — Shift to customer-Centric Solutions

- Distributed generation
- District cooling
- Energy Management services

Enablers

- Partnerships
- Financial discipline
- Technology & Digitalization
- Sustainability
- Agile & Resilient Organization
- Operational Excellence

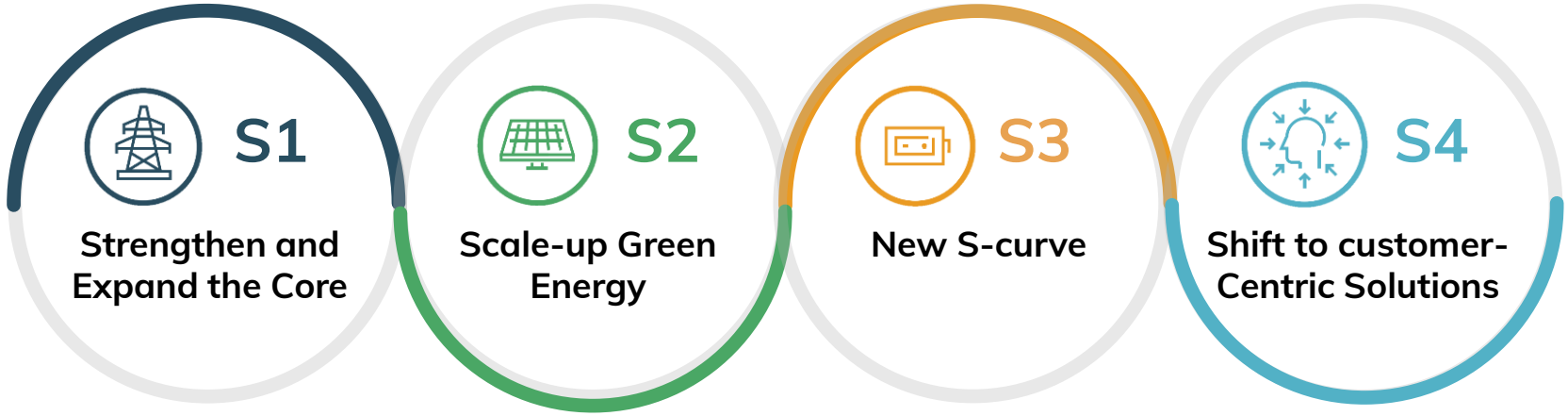
Capitals impacted

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

Figure 11: GPSC business strategy

Climate-Related Risks & Opportunities

GPSC Business Strategy



S1 Strengthen and Expand the Core

Promote and **develop our core business** with emphasis on maximum shareholders' satisfaction and appreciation of their needs while fostering customers' confidence with **operational excellence** to upgrade **safety, reliability, profitability**, and **sustainability** at international standards. To this end, GPSC relentlessly upgrades its people development and application of management standards as well as **digital technology** to drive and upgrade various aspects of operation together with growth to related businesses in and outside Thailand.

S2 Scale-up Green Energy

Accelerate renewable energy expansion through disciplined investment, portfolio optimization and strategic partnerships. GPSC continues to expand solar, wind, hydro and energy storage projects while strengthening its renewable portfolio to support long-term growth and **Net Zero 2050**.

S3 New S-curve

Invest in innovation to grow income from the **battery business** and **New S-Curve** businesses while accommodating transformation of the energy and power businesses. GPSC's goals are to join partners in driving the EV battery business and Energy Storage Systems (ESSs) and provide other services related to the value chain of the battery business. GPSC also values other New S-Curve businesses that would play key roles in the future power sector, namely the **renewables value chain, hydrogen energy business, and carbon capture, utilization & storage (CCUS).**

S4 Shift to customer-Centric Solutions

Strive for **energy management solutions** by focusing on distributed generation, district cooling, and energy management service to leverage energy service to meet customers' needs of for expense reduction, energy efficiency improvement, and greater energy stability, thus **leading Thailand toward a low-carbon society**. This strategy will be implemented in Thailand first

Figure 12: Description of GPSC business strategy

Climate-Related Risks & Opportunities

GPSC Net Zero GHG Emission Pathway

Vision The global leading innovative and sustainable power company

Aspiration To be top 3 power company in Southeast Asia with more than half of MW from green portfolio

Carbon intensity reduction 35% by 2030 (covering 100% of base year emissions scope 1+2)

Net Zero Emissions by 2050
(covering 100% of base year emissions scope 1 and 2)

Reduce Fossil Fuel Usage

Energy Efficiency

Continuously implement process improvement & optimization to existing fossil-fuel power plants, reduce fuel and energy consumption.

- Adopt best practice operational excellence
- Retrofit fossil-fuel plants
- Fuel & Energy consumption reduction
- Internal renewable energy consumption

Scope 1&2 Reduction

Grow Renewables

Growth Renewables

Phase down fossil-fuel power plant and grow renewable in both domestic and international.

- Renewable energy expansion through disciplined investment
- Portfolio optimization and strategic partnerships
- Solar, wind, hydro and energy storage projects
- Evaluation of emerging low-carbon technologies

Scope 1 Reduction/Avoided

Enhance Infrastructure

CCUS & Hydrogen Technology

Facilitate direct GHG sink and removal from fossil-based operations.

- Blue and Green Hydrogen (existing plants) with CCUS
- CCUS integration (coal, natural gas with post combustion carbon capture)

Scope 1 Reduction

Trading & Offset

Reforestation

According to Reforestation, 10,000 rai by 2030

Initiate nature-based solution and generate additional values through Environmental Attribution Certificates (EACs) participant.

- Carbon sink through nature-based solution
- EACs participation, including Renewable Energy Certificates (RECs) trading and Carbon Credit trading
- Internal Carbon Pricing (ICP)

Scope 1,2, 3 Reduction

Human Empowerment
Building performance of sustainability for our people

Intelligence Analytics
Enhance our capability of sustainability analytics

Sustainability Integration
Embedded sustainability for leverage our products, processes, and management

Figure 13: Description of GPSC Climate Strategy

Climate-Related Risks & Opportunities

3. Net Zero Transition Pathway

GPSC is accelerating its transition toward Net Zero 2050 by integrating climate considerations into investment decisions, portfolio transformation, renewable energy expansion and operational decarbonization. The Company also targets a 35% reduction in Scope 1 and 2 carbon intensity by 2030 (vs. 2020 baseline), supporting both long-term business resilience and Thailand's climate transition.

To reduce our greenhouse gas (GHG) emissions, GPSC has implemented strategic programs and activities aligning with Net Zero Pathway to decrease emissions from our business (**Figures 14 and 15**). The following projects have been conducted:

Figure 14: Net Zero Pathway

3.1 Renewable Technology

GPSC continues to accelerate renewable energy expansion through disciplined investment management and portfolio optimization in line with its long-term business strategy. The Company focuses on expanding renewable energy generation across strategic markets while strengthening its portfolio through selective investments and partnerships. These initiatives support GPSC's transition toward Net Zero 2050 while enhancing long-term business resilience and sustainable growth.

Emerging Low-carbon Technologies

In parallel with renewable energy expansion, GPSC continues to evaluate and develop emerging low-carbon technologies that can enhance operational flexibility and support long-term decarbonization. These include energy storage systems, hydrogen-related technologies, carbon capture, utilization and storage (CCUS), and other technologies that are technically and commercially appropriate to strengthen the Company's future energy portfolio.

Leverages India's Solar Potential for a Renewable Future

GPSC continues expanding its renewable energy portfolio through strategic investments, including Avaada Energy, to strengthen renewable generation capacity and support long-term portfolio transformation.

First Offshore Wind Project in Partnership with CIP

GPSC continues to pursue selective renewable energy investments, including offshore wind projects, consistent with its disciplined investment management approach and long-term renewable expansion strategy.

Climate-Related Risks & Opportunities

3.2 CCUS Technology

Carbon Capture, Utilization, and Storage (CCUS) Technology Development Consortium

GPSC has established the CCUS Consortium in partnership with the Bio-Circular-Green-economy Technology & Engineering Center (BCGeTEC) at the Department of Chemical Engineering, Faculty of Engineering, Chulalongkorn University, several companies from other sectors, government agencies, and other network member organizations. Currently, the CCUS Consortium is working on three projects as described below.

1. Researching the development and implementation of CCUS in Thailand's core industries through various approaches such as technology application, promotion, and development.
2. Collaborating internationally on membrane-assisted processes for hydrogen production and CO2 conversion into higher-value products like methanol and methane.
3. Developing technology with a high technology readiness level (TRL) for CCUS demonstration.

PTT Group's Feasibility Study of Carbon Capture and Storage (CCS) Application

GPSC has collaborated with PTT Group to conduct the PTT Group CCS Hub Model Project. The project aims to explore the feasibility of implementing a comprehensive CCS application for offshore and on/nearshore projects. Its goal is to help reduce GHG emissions from the operations of GPSC Group in Chonburi and Rayong. The project will serve as a crucial model for upscaling the application of CCS on a national level. The project is expected to have three benefits: 1) findings on CCS application, 2) successful establishment of Thailand's first offshore project (Arthit Project), and 3) opportunities for scaling up offshore CCS application and on/nearshore CCS adoption.

3.3 Reforestation

Reforestation Program

GPSC places great value on its business while also ensuring that it mitigates the challenges posed by climate change. We do this by increasing green space, preserving the environment, and promoting ecosystems that increase biodiversity. Since 2013, we have been involved in a reforestation project in Thailand, where we have already planted 65,450 trees. In 2023, we plan to reforest an additional 46,000 trees in 149 rai. We have also signed a memorandum of understanding with relevant government agencies and communities to continue our stewardship for the next five years. In addition to these ongoing projects, we have also undertaken a project to maintain 34 rai of green areas in community spaces.

3.4 Energy Efficiency

In response to a global shift toward clean energy and user demand for more efficient solutions, GPSC is actively pursuing energy-saving innovations. This includes the development and implementation of smart energy management systems. These systems optimize energy consumption by analyzing usage patterns and automating adjustments based on real-time data. By integrating smart technology, GPSC aims to empower its customers to reduce energy consumption costs, increase our reliance on renewable energy sources, and ultimately enhance the overall energy efficiency of the power grid.

More details about Four Strategic Programs in "Net Zero Emission Pathway can be found in GPSC's Integrated Sustainability Report 2024 and GPSC's 56-1 One Report 2024

Strategy

IFRS Sustainability

Climate-Related Risks & Opportunities

TARGET

Carbon intensity reduction 35% by 2030 (Scope 1 and 2)

Net Zero GHG Emissions by 2050 (Scope 1 and 2)

Net-zero Pathway

- Committee Driving
- GPSC Group Climate Change Strategy Committee (GCSC)
- GPSC Group Climate Change Strategy Task Force
- GPSC Group Climate Change Strategy Sub-Task Force

Programs or activities to achieve the emission reduction targets (scope 1 & 2 reduction)

Reduce Fossil Fuel Usage

Energy Efficiency

Strengthen operational efficiency to reduce fossil fuel consumption and lower GHG emissions.

- **50 Initiatives**
- Reduction Potential **90,000** Tones CO2e/year

Grow Renewables

Grow Renewables

According to business plan more than 70 % by 2035

- Policy of **no new coal investment**
- Phase down fossil-fuel power plant and grow renewable in both domestic and international

Programs or activities to neutralize residual emissions and mitigate emissions beyond the value chain (scope 1, 2 & 3 reduction)

Enhance infrastructure

Decarbonization Technologies Driving Net Zero

- **Co-study** with PTT group and external party to **explore carbon hub**
- To **study electricity production** from green and/or blue H2 for fuel cell

Trading & Offsetting

Carbon Credit Trading and Nature-Based Solutions

According to Reforestation, 10,000 rai by 2030 removal

- Carbon offsetting and nature-based solutions to support overall emissions reduction on the path to net zero.

Figure 15: Net Zero strategy and 4 strategic programs

GPSC

4

IFRS S2:
Risk Management

Climate-related Risk Management

1. Climate-Related Risk and Opportunity Assessment

GPSC conducts climate-related risk and opportunity assessments using structured methodologies supported by specialized analytical platforms, internationally recognized climate datasets, and external experts., **detailed on pages 12-25**.

Table 11: Example of Data Providers for Physical Risk Assessment

Data Provider	Indicator
Coupled Model Intercomparison Project 6 (CMIP6) data, extracted from inter-sectoral Impact Model Intercomparison Project (ISIMIP) downscaled Global Climate Models (GCMs)	• Warm spell duration index (extreme heat) • Cold spell duration index (extreme cold) • Forest fire danger index (wildfires) • Maximum flooding inundation depth (extreme rainfall and river flooding projections) • Rainfall-induced landslide index (landslides)
World Resources Institute	• Maximum coastal flooding inundation depth (coastal & offshore) • Water Stress Index (water stress & drought)
Fathom-Global 2.0	• Maximum flooding inundation depth (extreme rainfall and river flooding baseline)
NASA	• Rainfall-induced landslide index (landslides)
European Space Agency	• Maximum burned area (wildfires for baseline only)

Table 12: Example of Data Providers for Transition Risk and Opportunity Assessment

Data Provider	Scenarios
International Energy Agency (IEA)	• Scenario analysis for the increasing of carbon pricing and the impact to electric & utilities sector. The scenario includes Business-As-Usual EBITDA Growth (BAU), IEA Stated Policies Scenario (STEPS), Sustainable Development Scenario (SDS), Beyond 2°C Scenario (B2DS), and Net Zero Emissions by 2050 Scenario (NZE).
World Energy Outlook 2023 (WEO2023)	• Overall trend of global energy demand breaking down in each type of energy sources and explained the energy transition through different scenarios including net zero emission as the latest update one.
The IEA WEO2022's Announced Pledges Scenario (APS)	• APS scenario considers only the energy implications of currently announced policies and pledges from governments and businesses. This provides a good baseline for assessing risks arising from the gap between these commitments and a smooth transition to a low-carbon future.
International energy agency	• International energy agency has very useful research that related to the scenario of the establishment of cap-and-trade regulation over Thailand

The analysis focuses on assessing climate-related risks and opportunities based on where assets are located, types of technologies used, and financial implications. This includes evaluating potential physical and transition risks and opportunities and the timeframes involved. The goal is to assess the potential impact of climate change on assets and operations, as well as the business risks associated with the shift to a low-carbon economy. This includes considering potential regulatory changes, market disruptions, and stranded assets. The aim is to ensure that businesses are well-prepared and resilient in the face of a changing climate and energy landscape (**details on pages 12-22**)

Climate-related Risk Management

1.1 Scope of Assessment

The assessment analyzed 51 GPSC Group's operation assets in Thailand and overseas covering six power plant technologies: Cogeneration, Coal-Fired, Solar, Hydro, Wind, and Waste-to-Energy power plant technologies, along with 2 upstream assets and 1 downstream asset with a significant financial influence on the business. The names of these assets are listed in **Tables 2, 3,** and **4**

1.2 Scenarios and Timeframes

Around 200 countries agreed to limit global warming to no more than 2 degrees Celsius by 2100 while also striving to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels under the Paris Agreement. Thailand is committed to reducing its greenhouse gas emissions by 20% from the projected business-as-usual level by 2030 in line with this agreement. GPSC is preparing to support the National Determined Contribution (NDC) and the Paris Agreement as an electricity power producer. We focus on climate-related risks and opportunities through climate scenario analysis, which helps us explore and understand how climate change risks may impact businesses, strategies, and financial performance over time.

GPSC collaborated with third-party consultants to assess the level of impact of each risk across its operations in different scenarios aligning with **Shared Socioeconomic Pathways (SSP1-2.6 and SSP5-8.5)** for **physical risk**. The analysis included value chain activities, and **transition risks** were assessed by identifying material for low carbon economy transition risks, impacted business areas, and value chain impacts. **All transition risks were assessed under IEA STEPS and NET Zero 2050 scenarios**. The **risk and opportunity assessment** is impacted by two variables – intensification of climate drivers in a low carbon economy (**APS scenario**) compared to the base case (**STEPS scenario**), as well as the exposure ratings of each climate driver based on the likelihood and impact should it happen.

Both physical and transition risks were projected under two timeframes: medium-term 2030 and long-term 2050. The consolidated outcomes were consulted with internal stakeholders to understand the impacts of key risks and systematically review risk management strategies and approaches across the business.

1.3 Nature, Likelihood, and Magnitude

Physical Risks

The Climate Impact Platform (CIP) was used to assess the nature, likelihood, and magnitude of risks associated with physical impacts of climate change. The assessment involved evaluating the significance of the risk and the vulnerability of the company's assets. Risk scores were calculated for the present day (baseline) and projected future timeframes (2030 and 2050). The differences in these scores were then analyzed to determine the magnitude of change between the two time periods. The assessment output is presented in a heatmap with the score ranging from very minimal to very high risk (**Figure 6**).

Transition Risks

To assess the transition risk for GPSC's business, an approach involved identifying external factors that put pressure on transitioning to a low-carbon economy. The external factor was calculated based on how drivers change under low carbon transition and base case, using data from the IEA World Energy Outlook 2023 datasets.

Internal factors were also considered, and each selected driver's likelihood and magnitude ratings were used to generate exposure weightings. The internal input was provided by organizational stakeholders with the necessary competencies to identify risks and opportunities across GPSC's business and strategy. This provided an internal view of the company's inherent exposure to each driver. The exposure weightings are normalized into a scale of -1 to 1 (**Table 13**), with a negative value implying a risk and a positive value implying an opportunity.

The transition risk & opportunity heatmap was created by considering both external factors (scenario analysis) and internal factors (weighting exposure). Exposure weightings were applied to each scenario data value based on the indicator's significance to the portfolio sector. This helped to determine risk and opportunity scores, which range from high risk to high opportunity (**Figure 9**).

Climate-related Risk Management

Table 13: Normalized Exposure Weighting Scale

Risk				Opportunity		
-1.00	-0.5	-0.25	0	0.25	0.5	1.00
High Relevance	Moderate Relevance	Low Relevance	Neutral	Low Relevance	Moderate Relevance	High Relevance

2. Process for Climate Risks & Opportunities Identification and Assessment

The subsequent processes delineate GPSC's approach to addressing climate-related risks and opportunities identified by the specialized tool platform as described in the previous topic by implementing a procedure to assess the identified climate-related risks and opportunities based on **GPSC Group's ERM process following the Committee of Sponsoring Organization of Treadway Commission (COSO) ERM Framework 2017 and ISO 31000:2009 framework**. This procedure is integrated into the company-wide, multidisciplinary risk and opportunity management framework (**Figure 17**) and encompasses the following steps:

2.1 Reviewing Potential Risks and Opportunities

GPSC ensures a thorough and systematic integration of risk management, from assessing either positive or negative uncertainties to analyzing, reviewing, and preparing chances of climate-related risks and opportunities for the business. This includes internal uncertainties that may affect the organizational context in areas corresponding to the GPSC Group's strategic business plans, external issues/uncertainties arising from fluctuations in the business environment and emerging issues, and functional risks that are significant and material to the business context. A comprehensive review of the climate-related risks and opportunities relevant to GPSC follows IFRS S2 guidelines by internal functional-level professionals.

2.2 Identifying Risks and Opportunities

GPSC conducts a thorough review and assessment of identified climate-related risks and opportunities, taking into account internal and external factors. This assessment covers emerging risks from changes in business activities or the overall business environment that could affect GPSC Group's strategic objectives. It also includes any potential deviations from regular business operations that could impact current activities and the attainment of GPSC's business goals. GPSC uses standardized criteria to perform qualitative and quantitative risk and opportunity assessments, anchored in the Enterprise Risk Management (ERM) framework and tool, integrating the Committee of Sponsoring Organization of Treadway Commission (COSO) ERM Framework and ISO standards. By following these standards, GPSC adopts a thorough and systematic approach to risk identification across all operational facets, evaluating potential impacts and the likelihood of present and future risks.

2.3 Prioritizing Risks, Identifying Impact, and Formulating Management Approach

The identified climate-related risks have been considered and prioritized by corporate and functional levels using a **corporate risk matrix** (**Figure 15**) that reflects each individual's risk level based on several aspects such as financial, operational, strategic, and compliance aspects. The risk level is classified on a scale from low to extreme based on the likelihood and impact of each risk. The risks are categorized based on their level, represented by a color on the risk matrix, reflecting the company's level of acceptance. Risks that exceed the company's risk appetite and are assessed at high or extreme levels are represented by the orange or red color on the risk matrix, respectively. In such cases, GPSC will formulate additional risk mitigation plans, designate responsible persons, and specify completion time. Conversely, risks assessed to be at low or medium levels are represented by the green or yellow color on the risk matrix, respectively.

More details about the risk management process can be found in GPSC's 56-1 One Report 2024 and Risk & Crisis Management

Climate-related Risk Management

01 Review of Risks and Opportunities

Functional Level

Conduct a review of the current risks and opportunities that are relevant to GPSC. These include risks and opportunities in accordance with the taxonomy guided by IFRS S2 (e.g., acute and chronic physical risks; transition risks such as regulatory, technology, reputation, and market; and opportunities such as resource efficiency, energy source, products and services, markets, and resilience).

02 Risk and Opportunities Identification and Assessment

Functional Level

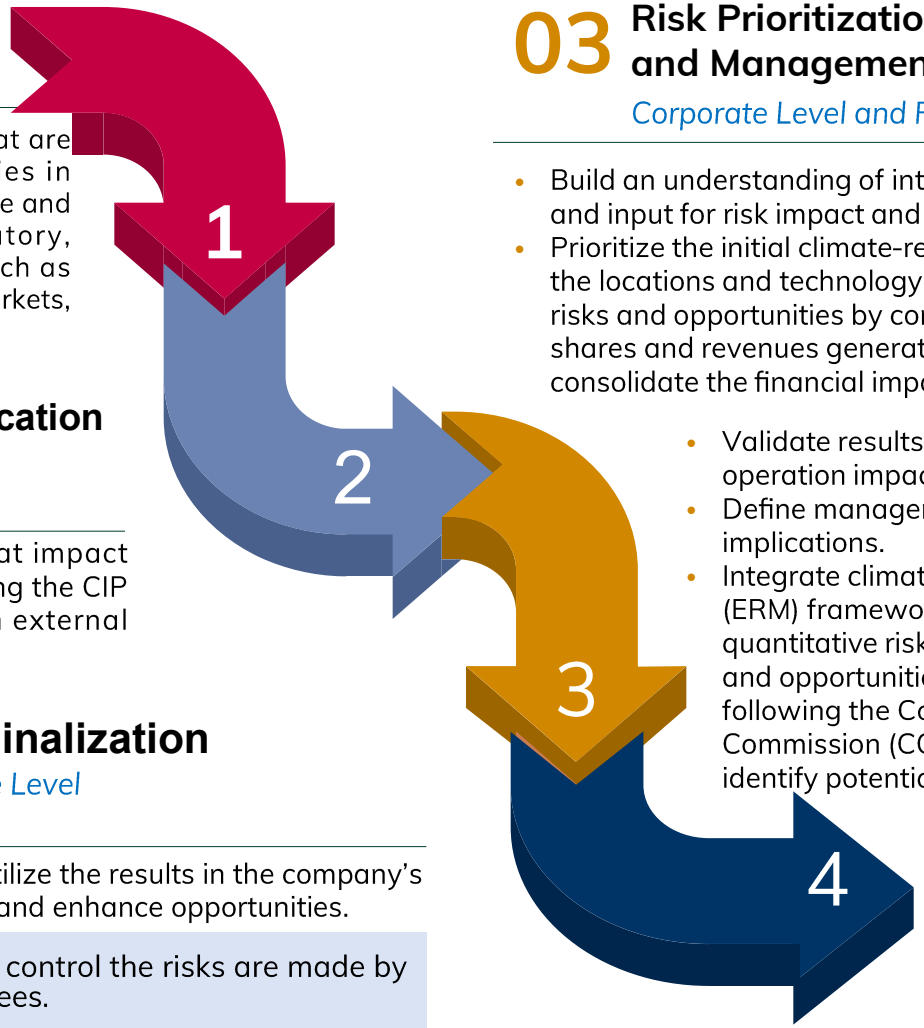
Assess climate-related risks and opportunities that impact business operations and financial implications utilizing the CIP Platform, specialized tools, and consultation with external experts.

04 Risk Validation and Finalization

Functional Level, and Executive Level (Corporate Level)

Validate results with company executives. Utilize the results in the company's strategic planning process to minimize risks and enhance opportunities.

Decisions to mitigate, transfer, accept, or control the risks are made by the responsible managements & committees.



03 Risk Prioritization, Impact Identification and Management Approach Formulation

Corporate Level and Functional Level

- Build an understanding of internal functions and brainstorm ideas and input for risk impact and management approach.
- Prioritize the initial climate-related risks and opportunities based on the locations and technology types of assets and recalibrate those risks and opportunities by considering the percentage of equity shares and revenues generated by each technology type of asset to consolidate the financial impacts on GPSC Group's business.
- Validate results of climate-related risks and opportunities (e.g., operation impacts and financial impacts).
- Define management approach to mitigate risk as well as financial implications.
- Integrate climate-related risks into Enterprise Risk Management (ERM) framework as corporate risks by performing qualitative and quantitative risk assessments of those identified climate-related risks and opportunities based on assessing GPSC Group's ERM process following the Committee of Sponsoring Organization of Treadway Commission (COSO) ERM Framework across GPSC operations to identify potential impacts and likelihood in the present and future.

Figure 16: Process for climate risks and opportunities identification and assessment

Climate-related Risk Management

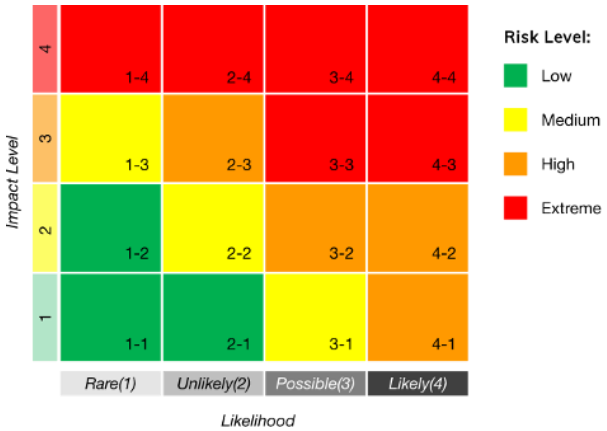


Figure 15: Corporate risk matrix

2.4 Validating and finalizing the identified risks and management plans

The outcomes of the prioritization are incorporated into the centralized enterprise risk and opportunity management process, and then reviewed by the executives. The results of the corporate risks and opportunities are consolidated as a part of the strategic thinking session and help to contribute to the GPSC Group Business Strategy. This helps to minimize risks and enhance opportunities and is subsequently presented to the Board of Directors for approval.

3. Climate-Related Risk and Opportunity Management

GPSC delegates climate-related risks to the company executives to mitigate risk for decision-making and validation of management strategies. This process is conducted annually to systematically review and update strategies in alignment with internal and external contexts. Relevant Key Performance Indicators (KPIs) are established and communicated to key functions and employees to ensure effective risk management, with an annual review to maintain their relevance and effectiveness.

4. Climate-Related Risk Monitoring

The identification, assessment, and management of climate-related risks are conducted regularly by considering metrics on the financial implications of climate change, including GHG emission reduction, water consumption reduction, renewable energy consumption, installed capacity of renewable-based power generation, the cost of the internal carbon price, cost of purchasing alternative water resources, revenues generated from sales of electricity from natural gas and renewable sources as well as capital expenditure on renewable sources, emission reduction technologies (CCS, CCUS) and TVER carbon-saving initiatives, as Key Risk Indicators (KRIs). The GPSC Group Climate Change Strategy Task Force monitors these climate-related metrics and provides quarterly progress updates on sustainability and climate-related risks and opportunities, to the GPSC Climate Change Strategy Committee. These updates ensure that policies, targets, scopes, strategic plans, preventive directions, and guidelines for mitigating and handling climate change impacts, as well as controlling greenhouse gas emissions, align with international standards (SDG 13), climate strategy, the Net Zero pathway, and the targets of both the country and the GPSC Group.

Additionally, quarterly reports are submitted to the Corporate Governance and Sustainability Committee and the Risk Management Committee. Climate-related updates are also scheduled annually in Board meetings to ensure that the Committee and the Board of Directors are consistently informed and able to provide guidance and advice on decision-making related to sustainability and climate change issues.

5. Reporting and Communication

Climate-related risks are an essential aspect of GPSC's operations. To keep stakeholders informed, the company regularly updates its Climate Change-related disclosures to outline its assessment of risks and opportunities. Additionally, GPSC Group verifies its GHG emissions data with third-party experts to ensure accurate measurement of its progress towards GHG reduction targets. The company also regularly communicates its results to its Board of Directors and external stakeholders, ensuring transparency.

5

IFRS S2:
Metrics and Targets

Metrics and Targets

1. Climate-Related Metrics

1.1 GHG Emission Metrics

GPSC acknowledges that our business operations can contribute to climate change. Therefore, we have established climate-related metrics and targets that follow the IFRS S2 cross-industry metric categories and Industry-Based Guidance. Our gross GHG emissions-related indicators are measured according to internationally recognized standards to ensure high-quality monitoring and reporting. We use the following standards and guidelines for measuring our GHG emissions:

- American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry (2009)
- IPCC Guidelines for National Greenhouse Gas Inventories (2006)
- ISO 14064-1
- Thailand Greenhouse Gas Management Organization: The National Guideline Carbon Footprint for organization
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- PTT Group GHG Standard & Calculation Tools

We obtain our emission factors from various sources, including the IPCC's Sixth Assessment Report (AR6) and national sources such as the Thailand Greenhouse Gas Management Organization (TGO) and the Ministry of Energy of Thailand.

Our GHG accounting approach is based on the **Operational Control Approach**, reflecting a comprehensive view of our impact and increased emissions accountability. This can help GPSC Group take a holistic view of its environmental impact through reducing emissions throughout our controlled operations, we aim to contribute to a more sustainable future and ensure our long-term business success in a world increasingly focused on climate change. Focusing on reducing emissions across the entire value chain can lead to operational efficiencies and cost savings in the long run.

Therefore, GPSC Group has reported GHG emission metrics with reporting boundary covering operations in Thailand where GPSC holds 75% or more shares or is a strategic owner. The GHG Scope 1 and 2 emission metrics and performance are presented in **Table 14** and **Table 19,** respectively.

Table 14: GHG Emission Metrics and Targets of Direct (Scope 1) and Indirect (Scope 2)

Key Metrics	Units	2025 Target*	GPSC 2025 Performance
			Consolidated Accounting Groups*
Direct GHG emission **(Scope 1)**	tCO_2e	13,698,478.41	11,784,368.29
Indirect GHG emissions from energy purchased and consumed **(Scope 2): Location-based**	tCO_2e	47,375.59	55,070.43
Indirect GHG emissions from energy purchased and consumed **(Scope 2): Market-based**	tCO_2e	47,375.59	55,070.43
Total GHG emission Intensity	tCO_2e/MWh	-	0.340

Remark:
* The gross greenhouse gas emission data of consolidated accounting groups included Head office, Warehouse, CUP-1, CUP-2, CUP-3, CUP-4, Sriracha power plant (SRC), Glow IPP, Glow Energy Phase 1, Glow Energy Phase 2, Glow Energy Phase 4, Glow Energy Phase 5, Glow Energy CFB 3, Glow Energy Solar, Glow SPP 2/Glow SPP 3 plant (Phase 3), Glow SPP 2 Replacement, Glow SPP 11 Phase 1, Glow SPP 11 Phase 2, Glow SPP 11 Phase 3, GHECO-ONE, Getz Energy Company Limited , Solar Private PPA, Refuse Derived Fuel (RDF) Power Plant. and Houay Ho Power Plant

Metrics and Targets

GPSC Group continuously enhances its Scope 3 greenhouse gas (GHG) emissions accounting to improve the completeness and accuracy of its value chain emissions assessment. In FY2025, the Company expanded the scope of its GHG inventory in accordance with the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011) by identifying and quantifying five relevant upstream Scope 3 categories: (1) Fuel and energy-related activities (not included in Scope 1 and Scope 2); (2) Upstream transportation and distribution; (3) Waste generated in operations; (4) Business travel; and (5) Employee commuting. The inclusion of Upstream transportation and distribution represents an expansion of the reporting boundary compared with previous years, reflecting GPSC's commitment to continuously improve its Scope 3 emissions management and disclosure.

GPSC will continue to enhance its Scope 3 accounting methodology and progressively expand data coverage as more primary activity data become available. This supports the Company's long-term decarbonization strategy, strengthens climate-related disclosure in line with international best practices, and improves transparency in reporting value chain GHG emissions. The GHG Scope 3 emission metrics and performance are presented in Table 15 and Table 20, respectively..

Table 15: GHG Emission Metrics and Targets of Other Indirect GHG Emissions (Scope 3)

Key Metrics	Units	2025 Target	GPSC 2025 Performance
Other indirect GHG **emissions (Scope 3)**	tCO_2e	1,475,312.50	1,235,595.76

Note:
The gross greenhouse gas emission data scope covers the following operations: Head office, Warehouse, CUP-1, CUP-2, CUP-3, CUP-4, Sriracha power plant (SRC), Glow IPP, Glow Energy Phase 1, Glow Energy Phase 2, Glow Energy Phase 4, Glow Energy Phase 5, Glow Energy CFB 3, Glow Energy Solar, Glow SPP 2/Glow SPP 3 plant (Phase 3), Glow SPP 2 Replacement, Glow SPP 11 Phase 1, Glow SPP 11 Phase 2, Glow SPP 11 Phase 3, GHECO-ONE, CHPP, Solar Private PPA, and Refuse Derived Fuel (RDF) Power Plant.

1.2 Other Climate-Related Metrics

Energy Performance

Our energy performance is closely related to GHG emissions, demonstrating our commitment to reducing GHG emissions and transitioning our business towards a low-carbon future. By reducing our consumption of non-renewable energy, improving efficiency, and increasing our use of renewable energy, GPSC Group can minimize our transition risks, including changes in regulations (such as carbon pricing), meeting stakeholder expectations, and responding to changes in customer behavior. This also positions us to take advantage of opportunities such as expanding our use of renewable energy and adopting low-carbon technologies. The energy-related metrics and targets are specified in **Table 16**.

Table 16: Energy-Related Metrics and Targets

Key Metrics	Units	2025 Target	GPSC 2025 Performance
Total non-renewable energy consumption	MWh	20,184,100.37	19,349,111.41

Water Performance

GPSC Group aims to enhance water efficiency by optimizing water usage and increasing water reuse/recycling to safeguard against physical risks, such as water stress, drought, and extreme heat, as described in **Table 17**.

Metrics and Targets

IFRS Sustainability

Table 17: Water-Related Metrics and Target

Key Metrics	Units	2025 Target	GPSC 2025 Performance
Total net freshwater consumption	M Liters	31,827.04	27,248.41

14.4% lower than annual target

Climate-Related Opportunities Metrics

GPSC monitors key climate-related opportunity metrics to evaluate the progress of its business transformation toward a lower-carbon portfolio. In line with the Company's strategic priorities of Investment Management, Renewable Expansion, and Accelerating toward Net Zero 2050, GPSC continuously assesses both financial and operational performance to ensure that climate-related opportunities contribute to long-term business resilience and sustainable value creation.as described in **Table 18.**

The selected metrics reflect the Company's progress in strengthening its renewable energy portfolio, enhancing operational performance, and creating long-term shareholder value through disciplined investment, portfolio optimization, and sustainable business growth. These indicators support GPSC's climate strategy and demonstrate the Company's ability to capture opportunities arising from the global energy transition

These metrics are regularly monitored to evaluate progress against GPSC's climate strategy and to support strategic planning, investment decision-making, and long-term portfolio transformation.

Table 18: Key Climate Strategy Performance Metrics

Key Metrics	Units	GPSC 2025 Performance
EBITDA Uplift Program realization	million THB	925
Renewable portfolio ratio	%	39.56
Renewable MW added (YoY)	MW	+335
Carbon intensity (Scope 1 & 2)	tCO_2e/MWh	0.340
Total electricity generation	MWh	34,805,480

For more detailed information regarding energy and water consumption performance please see GPSC Environmental Performance Report

Metrics and Targets

Table 19: GHG Scope 1 and 2 Emissions Performance

Data*	Unit	2022	2023	2024	2025
Total direct GHG emissions (Scope 1)	tCO_2e	**12,680,802.16**	**8,543,503.91**	**11,655,191.70**	**11,784,368.29**
i. CO_2	tCO_2e	12,636,751.34	8,524,747.46	11,596,600.36	11,750,595.19
ii. CH_4	tCO_2e	13,633.84	4,902.32	5,509.37	5,436.28
iii. N_2O	tCO_2e	27,508.12	13,854.13	26,435.27	28,315.22
iv. HFCs	tCO_2e	2,031.43	0	211.44	21.59
v. SF_6	tCO_2e	877.43	0	0.00	0.00
vi. PFCs	tCO_2e	0	15,655.43	26,435.27	0
vii. NF	tCO_2e	NA	N/A	N/A	N/A
viii. Biogenic CO_2 (excluded from total emissions)	tCO_2e	47.47	5.27	15.75	27.07
Indirect GHG emissions from energy purchased and consumed (Scope 2): Location-Based**	tCO_2e	**27,850.95**	**29,141.81**	**25,021.44**	**47,375.59**
Indirect GHG emissions from energy purchased and consumed (Scope 2): Market-Based**	tCO_2e	**27,850.95**	**29,141.81**	**25,021.44**	**47,375.59**

Remark:
* Gross greenhouse gas emission data.
** GPSC Group purchased electricity from Thailand's national grid, so GHG Scope 2 is the value from location-based only. The company did not purchase Renewable Energy Certificates (RECs) or contractual instruments from suppliers during the past 4 years. Therefore, GHG Scope 2 emissions for location-based and market-based are equal.

Note: Total direct GHG emissions (Scope 1) covers the seven greenhouse gases identified in the Kyoto Protocol including CO2, CH4, N2O, HFCs, PFCs, SF6, and NF3

For more detailed information, please see GPSC Performance Data

Metrics and Targets

Table 20: GHG Scope 3 Emissions Performance

Data*	Unit	2022	2023	2024	2025
Other indirect GHG emissions (Scope 3)	tCO_2e	**1,555,098.09**	**1,051,195.01**	**1,200,053.14**	**1,235,595.76**
Total Upstream	tCO_2e	**1,555,098.09**	**1,051,195.01**	**1,200,053.14**	**1,235,595.76**
i. Purchased goods and services	tCO_2e	N/A	N/A	N/A	N/A
ii. Capital goods	tCO_2e	N/A	N/A	N/A	N/A
iii. Fuel- and energy-related activities (not included in Scopes 1 or 2)	tCO_2e	1,550,323.84	1,046,463.93	1,194,730.90	1,168,765.52
iv. Upstream transportation & distribution	tCO_2e	0	0	0	64,866.00
v. Waste generated in operations	tCO_2e	4,685.93	4,731.08	5.13	50.70
vi. Business travel	tCO_2e	88.32	0	5017.11	172.84
vii. Employee commuting	tCO_2e	0	0	300	1,740.70
Other upstream	tCO_2e	N/A	N/A	N/A	N/A
Total Downstream	tCO_2e	**0**	**0**	**0**	N/A
ix. Downstream transportation and distribution	tCO_2e	0	0	0	**0**
x. Processing of sold product	tCO_2e	N/A	N/A	N/A	0
xi. Use of sold products	tCO_2e	N/A	N/A	N/A	N/A
xii. End-of-life treatment of sold products	tCO_2e	N/A	N/A	N/A	N/A
xiii. Downstream leased assets	tCO_2e	N/A	N/A	N/A	N/A
xiv. Franchises	tCO_2e	N/A	N/A	N/A	N/A
xv. Investments	tCO_2e	N/A	N/A	N/A	N/A
Other downstream	tCO_2e	N/A	N/A	N/A	N/A
Total GHG emission Intensity	tCO_2e/MWh	0.453	0.380	0.411	N/A

For more detailed information please see GPSC Performance Data

Metrics and Targets

IFRS Sustainability

1.3 Climate Risk and Opportunity Assessment Across Asset Portfolio

GPSC assesses climate-related risks and opportunities across its asset portfolio to understand the potential impacts of physical and transition risks on business operations, financial performance and long-term asset resilience. The assessment considers asset location, technology type, operational characteristics and exposure under multiple climate scenarios. The results are integrated into strategic planning, portfolio optimization and investment decision-making to support GPSC's transition toward Net Zero 2050.

The percentage of GPSC Group's assets vulnerable to climate-related transition risks, physical risks, and aligned opportunities is as follows:

Table 21: The Number and Percentage of Assets Vulnerable to Climate-Related Physical and Transition Risk

Asset	Number of Assets	Percent (%)
Total Asset	51	100%
Assets vulnerable to climate-related physical risk	26	51%
Assets vulnerable to climate-related transition risk	26	51%

Table 22: The Amount and Percentage of Assets Aligned to Climate-Related Opportunities

Asset	Number of Assets	Percent (%)
Total Asset	51	100%
Assets aligned with climate-related opportunities	48	94%

Climate-related opportunities include renewable energy expansion, efficiency improvement, low-carbon technologies and portfolio optimization.

1.4 Capital Deployment

GPSC integrates climate-related risks and opportunities into capital allocation and investment planning to strengthen long-term business resilience. Capital deployment supports renewable energy expansion, low-carbon technologies, emission reduction initiatives and other strategic investments that contribute to the Company's transition toward Net Zero 2050.

Table 23: The Amount of Capital Deployment

Climate Investment Area	Strategic Objective	Amount (THB)
Carbon credit and T-VER initiatives	Support residual emissions management	16,071 Million THB
Emission reduction technologies (CCS, CCUS)	Reduce transition risks	28,296 Million THB
Renewable portfolio expansion	Capture climate-related opportunities	38,517 Million THB

Climate-related capital deployment is aligned with GPSC's strategic priorities of **Investment Management**, **Renewable Expansion**, and **Accelerating toward Net Zero 2050**, ensuring that investment decisions enhance both financial performance and long-term climate resilience.

Metrics and Targets

GPSC prioritizes direct greenhouse gas (GHG) emission reductions through operational efficiency improvement, renewable energy expansion, fuel transition, and low-carbon technology deployment. In addition to these initiatives, the Company participates in Thailand's voluntary carbon market as a complementary mechanism to support climate action and manage residual emissions that cannot yet be technically or economically eliminated.

GPSC has successfully developed and registered carbon reduction projects under the Thailand Voluntary Emission Reduction Program (T-VER), including renewable energy, energy efficiency, and waste management projects. These projects generate verified carbon credits that support both the Company's climate strategy and Thailand's carbon market development while creating additional long-term business value.

GPSC has implemented an Internal Carbon Price (ICP) of USD 15/tCO_2e an internal carbon price (ICP) to support climate-related investment decisions and strengthen long-term business resilience. The ICP is incorporated into project evaluation and investment assessment processes to reflect potential future carbon costs, support capital allocation toward low-carbon projects, and improve the Company's preparedness for evolving climate-related regulations and carbon pricing mechanisms.

2. Climate-Related Targets

GPSC has established a long-term ambition to achieve Carbon Neutrality and Net Zero GHG emissions by 2050, supported by interim emission reduction targets and a structured decarbonization roadmap. The Company aims to reduce Scope 1 and Scope 2 GHG emission intensity by 10% by 2025 and 35% by 2030 compared with the 2020 baseline. These targets are aligned with GPSC's climate strategy, PTT Group's Net Zero ambition and Thailand's long-term climate objectives.The emission reduction targets are shown in **Table 24**.

Achievement of these targets is supported through renewable energy expansion, portfolio optimization, operational decarbonization, energy efficiency improvement, and disciplined investment management in accordance with GPSC's long-term business strategy.

Table 24: GPSC Climate-related Targets

Key Performance Indicator	Unit	Baseline		% Reduction Target from Base Year		
		Value	Baseline Year	2025	2030	2050
Absolute GHG Emission (Scope 1 and Scope 2)*	tCO_2e	11,198,404.84	2020	-	-	**100%**
GHG Emission Scope 3*	tCO_2e	327,078.19	2020	-	-	**To achieve Net Zero Emission**
Intensity GHG Emission (Scope 1 and Scope 2)	tCO_2e/ MWh	0.436	2020	10%	35%	

Note:
The target is a gross greenhouse gas emissions target.
* Scope 1 and Scope 2 GHG emission intensity is used as the Company's key performance indicator for monitoring progress toward the 2030 climate target.

Table 25: GPSC Progress toward FY2030 Target

Indicator	Status
2020 Baseline	0.436 tCO_2e/MWh
FY2025 Performance	0.340 tCO_2e/MWh
Progress	22% reduction from baseline
FY2030 Target	35% reduction

Carbon credits are intended to complement direct emission reduction efforts and are not considered a substitute for operational decarbonization. GPSC continues to prioritize direct GHG emission reductions across its operations and value chain.

Metrics and Targets

GPSC establishes climate-related metrics and targets in accordance with internationally recognized standards and uses these indicators to monitor progress toward its climate strategy and long-term business objectives. Performance against these targets is regularly monitored to support strategic planning, investment decisions and continuous improvement of climate-related performance.

Climate-related targets are integrated into GPSC's business strategy through renewable energy expansion, portfolio optimization, operational decarbonization, and customer-centric energy solutions. These targets support the Company's transition toward Net Zero 2050 while strengthening long-term business resilience and sustainable value creation.

GPSC continues expanding its renewable energy portfolio through disciplined investment and strategic project development. Renewable energy remains one of the Company's key growth drivers and supports both business expansion and long-term decarbonization. Progress against renewable energy targets is monitored annually and reported through the Company's sustainability reporting framework.

Table 26: Other Climate-Related Targets

Key Performance Indicator	Unit	Baseline		% Target from Base Year
		Value	Baseline Year	
Renewable installed capacity	%	11.29	2020	>50% by 2030
Scope 1 & 2 GHG intensity reduction	%		2020	-35% by 2030
Net Zero target	Year			2050

Furthermore, GPSC Group has recognized opportunities to expand its business into low-carbon products in response to shifts in customer behavior and global energy consumption trends. We intend to participate in the voluntary environmental credit market by producing carbon credits and Renewable Energy Certificates (RECs) as viable financial opportunities. A summary of climate-related risks can be found on **pages 16-25** of the report.

Climate-related Performance Monitoring

GPSC regularly monitors progress against its climate-related targets through the Company's enterprise performance management and sustainability governance processes. Performance results are reviewed by management and used to support strategic planning, investment prioritization and portfolio transformation.

Climate-related Opportunities

GPSC continues to capture climate-related opportunities through renewable energy expansion, customer-centric energy solutions, low-carbon technologies and participation in carbon markets. These initiatives support both climate resilience and long-term sustainable growth.

Climate-related targets are supported by GPSC's strategic priorities of **Investment Management, Renewable Expansion and Accelerating toward Net Zero 2050**, ensuring that climate considerations are embedded into business growth and capital investment decisions.

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IFRS S2 Recommended Disclosure	Document Page
Governance	
a) The governance body(s) (which can include a board, committee or equivalent body charged with governance)or individual(s) responsible for oversight of climate-related risks and opportunities.	
I. how responsibilities for climate-related risks and opportunities are reflected in the terms of reference, mandates, role descriptions and other related policies applicable to that body(s) or individual(s);	Page 6: Figure 3: Climate governance structure Page 7: Figure 4: Climate change climate change task force structure Page 8: 1. Board-Level, 1.1 The Roles and Responsibility Climate Change Policy Climate Change Management Structure
II. how the body(s) or individual(s) determines whether appropriate skills and competencies are available or will be developed to oversee strategies designed to respond to climate-related risks and opportunities;	Page 8: 1.3 Skill Set and Competencies Board Skill Matrix Corporate Governance Manual and Code of Conduct
III. how and how often the body(s) or individual(s) is informed about climate-related risks and opportunities;	Page 8: 1.2 Report of Progress
IV. how the body(s) or individual(s) takes into account climate-related risks and opportunities when overseeing the entity's strategy, its decisions on major transactions and its risk management processes and related policies, including whether the body(s) or individual(s) has considered trade-offs associated with those risks and opportunities; and	Page 8: 1.1 The Roles and Responsibility CLEAN ENERGY TOWARDS NET ZERO
V. how the body(s) or individual(s) oversees the setting of targets related to climate-related risks and opportunities, and monitors progress towards those targets, including whether and how related performance metrics are included in remuneration policies.	Page 10: 4. Monetary Incentives Materiality – **Climate-related KPIs for Executives**

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IFRS S2 Recommended Disclosure	Document Page
Governance	
b) Management's role in the governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities.	
I. whether the role is delegated to a specific management-level position or management-level committee and how oversight is exercised over that position or committee; and	Page 9: 2. Management-Level, 2.1 Roles and Responsibilities CLEAN ENERGY TOWARDS NET ZERO
II. whether management uses controls and procedures to support the oversight of climate-related risks and opportunities and, if so, how these controls and procedures are integrated with other internal functions.	
Strategy	
Climate-related risks and opportunities	
a) Describe climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects.	Page 16: 1.1.4 Physical Risk Assessment Result- Qualification Analysis Page 17-19: 1.1.5 Quantification Analysis of Physical Risk
b) Explain, for each climate-related risk the entity has identified, whether the entity considers the risk to be a climate-related physical risk or climate-related transition risk.	Page 21: 1.2.3 Transition Risk and Opportunity Assessment Result- Qualification Analysis Page 22: 1.2.4 Quantification Analysis of Transition Risk
c) Specify, for each climate-related risk and opportunity the entity has identified, over which time horizons (short, medium, or long term) the effects of each climate-related risk and opportunity could reasonably be expected to occur.	Page 23: 1.2.5 Quantification Analysis of Transition Opportunity
d) Explain how the entity defines 'short term', 'medium term' and 'long term' and how these definitions are linked to the planning horizons used by the entity for strategic decision-making.	Page 14: 1.1.2 Climate Scenarios – Physical Risks and Opportunities Page 20: 1.2.1 Climate Scenarios and – Transition Risks and Opportunities Page 26-30: 2. Impacts of Climate-related Risks and Opportunities on Corporate Strategy, including 2.1 Business Strategy, 2.2 Climate Strategy, and 2.3 Net Zero Strategy CLEAN ENERGY TOWARDS NET ZERO

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IFRS S2 Recommended Disclosure	Document Page
Strategy (Continue)	
Business model and value chain	
a) Description of the current and anticipated effects of climate-related risks and opportunities on the entity's business model and value chain.	Page 26-30: 2. Impacts of Climate-related Risks and Opportunities on Corporate Strategy, including 2.1 Business Strategy, 2.2 Climate Strategy, and 2.3 Net Zero Strategy Page 31-32: 3. Four Strategic Programs in Net Zero Emission Pathway Page 33: Figure 15: Net Zero strategy and 4 strategic programs
b) Description of where in the entity's business model and value chain climate-related risks and opportunities are concentrated.	Page 17-19: 1.1.5 Quantification Analysis of Physical Risk Page 22: 1.2.4 Quantification Analysis of Transition Risk Page 23: 1.2.5 Quantification Analysis of Transition Opportunity
Strategy and decision-making	
a) information about how the entity has responded to, and plans to respond to, climate-related risks and opportunities in its strategy and decision-making, including how the entity plans to achieve any climate-related targets it has set and any targets it is required to meet by law or regulation. Specifically, the entity shall disclose information about:	
I. current and anticipated changes to the entity's business model, including its resource allocation, to address climate-related risks and opportunities (for example, these changes could include plans to manage or decommission carbon-, energy- or water-intensive operations; resource allocations resulting from demand or supply-chain changes; resource allocations arising from business development through capital expenditure or additional expenditure on research and development; and acquisitions or divestments);	Page 26-30: 2. Impacts of Climate-related Risks and Opportunities on Corporate Strategy, including 2.1 Business Strategy, 2.2 Climate Strategy, and 2.3 Net Zero Strategy Page 31-32: 3. Four Strategic Programs in Net Zero Emission Pathway Page 34: Figure 15: Net Zero strategy and 4 strategic programs CLEAN ENERGY TOWARDS NET ZERO

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Strategy (Continue)	
II. current and anticipated direct mitigation and adaptation efforts (for example, through changes in production processes or equipment, relocation of facilities, workforce adjustments, and changes in product specifications);	Page 17-19: 1.1.5 Quantification Analysis of Physical Risk Page 22: 1.2.4 Quantification Analysis of Transition Risk Page 23: 1.2.5 Quantification Analysis of Transition Opportunity
III. current and anticipated indirect mitigation and adaptation efforts (for example, through working with customers and supply chains);	CLEAN ENERGY TOWARDS NET ZERO
IV. any climate-related transition plan the entity has, including information about key assumptions used in developing its transition plan, and dependencies on which the entity's transition plan relies; and	Page 26-30: 2. Impacts of Climate-related Risks and Opportunities on Corporate Strategy, including 2.1 Business Strategy, 2.2 Climate Strategy, and 2.3 Net Zero Strategy Page 31-32: 3. Four Strategic Programs in Net Zero Emission Pathway Page 35: Figure 14: Net Zero strategy and 4 strategic programs
V. how the entity plans to achieve any climate-related targets, including any greenhouse gas emissions targets.	Page 42-44: 1.1 GHG Emission Metrics and 1.2 Other Climate-Related Metrics (Energy and Water) GPSC's Environmental Performance Report
b) information about how the entity is resourcing, and plans to resource, the activities disclosed in accordance with paragraph.	Page 42-44: 1. Climate-Related Measures, 1.1 GHG Emission Metrics and 1.2 Other Climate-Related Metrics (Energy and Water) Page 47-48 : 2. Climate-Related Targets
c) quantitative and qualitative information about the progress of plans disclosed in previous reporting periods.	Page 4

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Strategy (Continue)	
Financial position, financial performance and cash flows	
a) Effects of climate-related risks and opportunities on the entity's financial position, financial performance and cash flows for the reporting period (current financial effects).	**Page 17-19**: 1.1.5 Quantification Analysis of Physical Risk **Page 22**: 1.2.4 Quantification Analysis of Transition Risk **Page 23**: 1.2.5 Quantification Analysis of Transition Opportunity
b) Anticipated effects of climate-related risks and opportunities on the entity's financial position, financial performance and cash flows over the short, medium and long term, taking into consideration how climate-related risks and opportunities are included in the entity's financial planning.	
Climate resilience	
a) Entity's assessment of its climate resilience as at the reporting date:	
I. the implications, if any, of the entity's assessment for its strategy and business model, including how the entity would need to respond to the effects identified in the climate-related scenario analysis;	**Page 17-19**: 1.1.5 Quantification Analysis of Physical Risk **Page 22**: 1.2.4 Quantification Analysis of Transition Risk **Page 23**: 1.2.5 Quantification Analysis of Transition Opportunity
II. the significant areas of uncertainty considered in the entity's assessment of its climate resilience;	**Page 12-13**: 1.1.1 Scope of Assessment
III. (iii) the entity's capacity to adjust or adapt its strategy and business model to climate change over the short, medium and long term, including; (1) the availability of, and flexibility in, the entity's existing financial resources to respond to the effects identified in the climate-related scenario analysis, including to address climate-related risks and to take advantage of climate-related opportunities; (2) the entity's ability to redeploy, repurpose, upgrade or decommission existing assets; and (3) the effect of the entity's current and planned investments in climate-related mitigation, adaptation and opportunities for climate resilience; and	**Page 17-19**: 1.1.5 Quantification Analysis of Physical Risk **Page 22**: 1.2.4 Quantification Analysis of Transition Risk **Page 23**: 1.2.5 Quantification Analysis of Transition Opportunity

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IFRS S2 Recommended Disclosure		Document Page
Strategy (Continue)		
b) How and when the climate-related scenario analysis was carried out:		
I.	information about the inputs the entity used, including: (1) which climate-related scenarios the entity used for the analysis and the sources of those scenarios; (2) whether the analysis included a diverse range of climate-related scenarios; (3) whether the climate-related scenarios used for the analysis are associated with climate-related transition risks or climate-related physical risks; (4) whether the entity used, among its scenarios, a climate-related scenario aligned with the latest international agreement on climate change; (5) why the entity decided that its chosen climate-related scenarios are relevant to assessing its resilience to climate-related changes, developments or uncertainties; (6) the time horizons the entity used in the analysis; and (7) what scope of operations the entity used in the analysis (for example, the operating locations and business units used in the analysis);	**Page 12-15:** 1.1 Physical Risks and Opportunities • Cover 9 hazards, including extreme heat, extreme cold, river flooding, extreme rainfall flooding, water stress, drought, coastal & offshore, extreme winds & storms, wildfire • 1.1.1 Scope of Assessment • 1.1.2 Climate Scenarios • 1.1.3 Physical Risk Assessment Methodology **Page 20**: 1.2 Transition Risks and Opportunities • Cover 4 drivers, including policy & legal, market, reputation, and technology • 1.2.1 Climate Scenarios • 1.2.2 Transition Risk Assessment Methodology
II.	the key assumptions the entity made in the analysis, including assumptions about: (1) climate-related policies in the jurisdictions in which the entity operates; (2) macroeconomic trends; (3) national- or regional-level variables (for example, local weather patterns, demographics, land use, infrastructure and availability of natural resources); (4) energy usage and mix; and (5) developments in technology; and	**Page 36**: 1. Risk and Opportunity Assessment • 1.2 Scenarios and Timeframes
III.	the reporting period in which the climate-related scenario analysis was carried out.	**Page 14**: 1.1 Physical Risks and Opportunities • 1.1.2 Climate Scenarios **Page 20**: 1.2 Transition Risks and Opportunities • 1.2.1 Climate Scenarios **Page 36**: 1. Risk and Opportunity Assessment • 1.3 Scenarios and Timeframes

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Risk Management		
a) the processes and related policies the entity uses to identify, assess, prioritise and monitor climate-related risks, including information about:		
I.	the inputs and parameters the entity uses (for example, information about data sources and the scope of operations covered in the processes);	Page 35: 1. Climate-Related Risk and Opportunity Assessment • Table 11: Example of Data Providers for Physical Risk Assessment • Table 12: Example of Data Providers for Transition Risk and Opportunity Assessment Page 36: 1. Climate-Related Risk and Opportunity Assessment • 1.2 Scenarios and Timeframes CLEAN ENERGY TOWARDS NET ZERO
II.	whether and how the entity uses climate-related scenario analysis to inform its identification of climate-related risks;	
III.	how the entity assesses the nature, likelihood and magnitude of the effects of those risks	Page 36: 1.3 Nature, Likelihood, and Magnitude Page 37-38: 2. Process for Climate Risks & Opportunities Identification and Assessment • 2.3 Prioritizing Risks, Identifying Impact, and Formulating Management Approach Risk and Crisis Management
IV.	whether and how the entity prioritises climate-related risks relative to other types of risk;	
V.	how the entity monitors climate-related risks; and	Page 39: 4. Climate-Related Risk Monitoring Risk and Crisis Management
VI.	whether and how the entity has changed the processes it uses compared with the previous reporting period;	Page 36: 1. Climate-Related Risk and Opportunity Assessment • 1.2 Scenarios and Timeframes

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Risk Management (Continue)	
b) the processes the entity uses to identify, assess, prioritise and monitor climate-related opportunities, including information about whether and how the entity uses climate-related scenario analysis to inform its identification of climate-related opportunities; and	Page 35-36: 1. Climate-Related Risk and Opportunity Assessment • 1.1 Scope of Assessment • 1.2 Scenarios and Timeframes • 1.3 Nature, Likelihood, and Magnitude Page 37-39: 2. Process for Climate Risks & Opportunities Identification and Assessment • 2.1 Reviewing Potential Risks and Opportunities • 2.2 Identifying Risks and Opportunities • 2.3 Prioritizing Risks, Identifying Impact, and Formulating Management Approach • 2.4 Validating and finalizing the identified risks and management plans. Risk and Crisis Management CLEAN ENERGY TOWARDS NET ZERO
c) the extent to which, and how, the processes for identifying, assessing, prioritising and monitoring climate-related risks and opportunities are integrated into and inform the entity's overall risk management process.	
Metric and Targets	
Climate-related metrics	
a) greenhouse gases—the entity shall:	
I. disclose its absolute gross greenhouse gas emissions generated during the reporting period, expressed as metric tonnes of CO2 equivalent, classified as: (1) Scope 1 greenhouse gas emissions; (2) Scope 2 greenhouse gas emissions; and (3) Scope 3 greenhouse gas emissions;	Page 41-42: 1.1 GHG Emission Metric • Table 14: GHG Emission Metrics and Targets of Direct (Scope 1) and Indirect (Scope 2) • Table 15: GHG Emission Metrics and Targets of Other Indirect GHG Emissions (Scope 3) Page 44: Table 19: GHG Scope 1 and 2 Emissions Performance Page 45: Table 20: GHG Scope 3 Emissions Performance GPSC's Environmental Performance Report

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Metric and Targets (Continue)	
II. measure its greenhouse gas emissions in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) unless required by a jurisdictional authority or an exchange on which the entity is listed to use a different method for measuring its greenhouse gas emissions;	**Page 41**: 1.1 GHG Emission Metrics • Table 14: GHG Emission Metrics and Targets of Direct (Scope 1) and Indirect (Scope 2) **Page 44**: Table 19: GHG Scope 1 and 2 Emissions Performance GPSC's Environmental Performance Report
III. disclose the approach it uses to measure its greenhouse gas emissions including: (1) the measurement approach, inputs and assumptions the entity uses to measure its greenhouse gas emissions; (2) the reason why the entity has chosen the measurement approach, inputs and assumptions it uses to measure its greenhouse gas emissions; and (3) any changes the entity made to the measurement approach, inputs and assumptions during the reporting period and the reasons for those changes;	
IV. for Scope 1 and Scope 2 greenhouse gas emissions disclosed (disclose its absolute gross greenhouse gas emissions) disaggregate emissions between: (1) the consolidated accounting group (for example, for an entity applying IFRS Accounting Standards, this group would comprise the parent and its consolidated subsidiaries); and (2) other investees excluded, for an entity applying IFRS Accounting Standards, these investees would include associates, joint ventures and unconsolidated subsidiaries);	
V. for Scope 2 greenhouse gas emissions disclosed in accordance with paragraph 29(a)(i)(2), disclose its location-based Scope 2 greenhouse gas emissions, and provide information about any contractual instruments that is necessary to inform users' understanding of the entity's Scope 2 greenhouse gas emissions; and	
VI. for Scope 3 greenhouse gas emissions disclosed (1) the categories included within the entity's measure of Scope 3 greenhouse gas emissions, in accordance with the Scope 3 categories described in the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011); and (2) additional information about the entity's Category 15 greenhouse gas emissions or those associated with its investments (financed emissions), if the entity's activities include asset management, commercial banking or insurance;	**Page 42**: 1.1 GHG Emission Metric • Table 15: GHG Emission Metrics and Targets of Other Indirect GHG Emissions (Scope 3) **Page 45**: Table 20: GHG Scope 3 Emissions Performance GPSC's Environmental Performance Report

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Metric and Targets (Continue)	
b) climate-related transition risks—the amount and percentage of assets or business activities vulnerable to climate-related transition risks;	Page 46: 1.3 Mapping Climate Risks & Opportunities for Assets • Table 21: The Number and Percentage of Assets Vulnerable to Climate-Related Physical and Transition Risk • Table 22: The Amount and Percentage of Assets Aligned to Climate-Related Opportunities • Table 23: The Amount of Capital Deployment
c) climate-related physical risks—the amount and percentage of assets or business activities vulnerable to climate-related physical risks;	
d) climate-related opportunities—the amount and percentage of assets or business activities aligned with climate-related opportunities;	
e) capital deployment—the amount of capital expenditure, financing or investment deployed towards climate-related risks and opportunities;	
f) internal carbon prices—the entity shall disclose:	
I. an explanation of whether and how the entity is applying a carbon price in decision-making (for example, investment decisions, transfer pricing and scenario analysis); and	Page 47: GPSC Group has implemented an internal carbon price (ICP) of 15 USD/tCO2e across all business units to comply with climate-related regulations. Internal Carbon Pricing (ICP)
II. the price for each metric tonne of greenhouse gas emissions the entity uses to assess the costs of its greenhouse gas emissions;	
g) remuneration—the entity shall disclose:	
I. a description of whether and how climate-related considerations are factored into executive remuneration (see also paragraph 6(a)(v)); and	Page 9: 4. Monetary Incentives Materiality – **Climate-related KPIs for Executives**
II. a description of whether and how climate-related considerations are factored into executive remuneration (see also paragraph 6(a)(v)); and	

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IFRS S2 Recommended Disclosure	Document Page
Metric and Targets (Continue)	
Climate-related targets	
Quantitative and qualitative climate-related targets	
a) the metric used to set the target	Page 47-49: 2. Climate-Related Targets (absolute and intensity targets with based year in 2020) • Table 24: Emission Reduction Targets (2025, 2030, 2050) • Table 25: Other Climate-Related Targets (2030)
b) the objective of the target (for example, mitigation, adaptation or conformance with science-based initiatives);	
c) the part of the entity to which the target applies (for example, whether the target applies to the entity in its entirety or only a part of the entity, such as a specific business unit or specific geographical region);	
d) the period over which the target applies;	
e) the base period from which progress is measured;	
f) any milestones and interim targets;	
g) if the target is quantitative, whether it is an absolute target or an intensity target; and	
h) how the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target.	
Approach to setting and reviewing each target, and monitoring progress against each target	
a) whether the target and the methodology for setting the target has been validated by a third party;	Page 47-49: 2. Climate-Related Targets (absolute and intensity targets with based year in 2020) • Table 24: Emission Reduction Targets (2025, 2030, 2050) • Table 25: Other Climate-Related Targets (2030)
b) the entity's processes for reviewing the target;	
c) the metrics used to monitor progress towards reaching the target; and	
d) any revisions to the target and an explanation for those revisions.	

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IFRS S2 Recommended Disclosure	Document Page
Metric and Targets (Continue)	
Performance against each climate-related target and an analysis of trends or changes in the entity's performance	
a) which greenhouse gases are covered by the target.	Page 44: Table 19: GHG Scope 1 and 2 Emissions Performance Page 47: 2. Climate-Related Targets • Table 24: Emission Reduction Targets
b) whether Scope 1, Scope 2 or Scope 3 greenhouse gas emissions are covered by the target.	
c) whether the target is a gross greenhouse gas emissions target or net greenhouse gas emissions target. If the entity discloses a net greenhouse gas emissions target, the entity is also required to separately disclose its associated gross greenhouse gas emissions target.	
d) whether the target was derived using a sectoral decarbonization approach.	
e) the entity's planned use of carbon credits to offset greenhouse gas emissions to achieve any net greenhouse gas emissions target. In explaining its planned use of carbon credits.	
I. the extent to which, and how, achieving any net greenhouse gas emissions target relies on the use of carbon credits;	N/A
II. which third-party scheme(s) will verify or certify the carbon credits;	
III. the type of carbon credit, including whether the underlying offset will be nature-based or based on technological carbon removals, and whether the underlying offset is achieved through carbon reduction or removal; and	
IV. any other factors necessary for users of general purpose financial reports to understand the credibility and integrity of the carbon credits the entity plans to use (for example, assumptions regarding the permanence of the carbon offset).	

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IFRS S2 Recommended Disclosure		Document Page
Metric and Targets (Continue)		
Performance against each climate-related target and an analysis of trends or changes in the entity's performance		
III.	the type of carbon credit, including whether the underlying offset will be nature-based or based on technological carbon removals, and whether the underlying offset is achieved through carbon reduction or removal; and	N/A
IV.	any other factors necessary for users of general purpose financial reports to understand the credibility and integrity of the carbon credits the entity plans to use (for example, assumptions regarding the permanence of the carbon offset).	

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IFRS S2:
Appendix B – Net-Zero Transition Plan

Overview of GPSC's Net-Zero Transition Plan

Global Power Synergy Public Company Limited (GPSC), as the flagship power generation arm of the PTT Group, occupies a position of both significant responsibility and significant opportunity in Thailand's energy landscape. For decades, GPSC has played a central role in ensuring energy security and powering industrial growth in Thailand and the surrounding region. Today, that same role places the Company at the center of one of the most consequential challenges of our time: the transition to a low-carbon economy.

In line with the Paris Agreement's goal of limiting global warming to well below 2°C, and pursuing efforts toward 1.5°C, GPSC has developed a climate transition plan–a strategic roadmap detailing how the Company intends to adjust its strategy, business model, operations, and activities on its path to net-zero emissions by 2050.

This is not a single initiative, but an evolving framework that spans GPSC's entire value chain. It addresses the fuel mix powering existing assets, the technologies the Company invests in for future growth, and the way it engages with suppliers, customers, communities, and policymakers throughout the transition.

At its core, the plan reflects a clear proposition: GPSC must continue delivering reliable, competitively priced energy to support economic activity, while systematically reducing the carbon intensity of that energy over time. This requires balancing a portfolio that today includes conventional thermal generation, including coal and gas-fired assets, alongside a growing base of renewable energy, cogeneration, energy storage, and emerging technologies such as hydrogen. Achieving net-zero by 2050 means this balance must shift decisively, with concrete actions across Scopes 1, 2, and 3 already underway or planned over the near term, particularly the next five years.

A credible transition plan also requires that decarbonization be embedded into core strategy and capital allocation, not treated as a separate initiative. Accordingly, this plan sets out, where possible, time-bound and quantified targets for the investments required to fund these activities, whether through planned capital expenditure or broader investment programs aligned with the transition pathway.

GPSC also recognizes that this transition cannot be achieved alone. It depends on engagement with suppliers, customers, and investee companies across the value chain; collaboration with industry peers and associations to drive sector-wide progress; and active engagement with governments, regulators, and civil society, who shape the broader environment for the transition.

Finally, GPSC recognizes that this transition carries real implications for people–employees, communities, supply chain workers, and customers. Guided by the principle of a just transition, the plan includes an assessment of these potential social impacts, along with actions to ensure that decarbonization goes hand in hand with fairness, equity, and the protection of human rights for all.

Assessment of Social Implications of GPSC's Net-Zero Transition Plan

GPSC has assessed the social implications associated with its transition toward net-zero greenhouse gas emissions across its operations and value chain. This assessment considers potential impacts on employees, contractors, local communities, and consumers arising from changes in technology, fuel mix, asset portfolio, and operational processes required to achieve the Company's decarbonization targets.

Workforce-related impacts:

Phasing out or repowering of fossil fuel-based generation assets (including coal and certain gas-fired units) may affect employment composition, required skill sets, and job roles within GPSC's own operations. The shift toward renewable energy, energy storage, hydrogen, and other low-carbon technologies requires new technical competencies, which may create both reskilling needs for existing employees and new employment opportunities.

Supply chain impacts:

The transition involves increased procurement of renewable energy equipment (solar panels, wind turbines, battery storage systems) and low-carbon fuel sources. This may shift demand away from suppliers and contractors associated with conventional fuel supply chains (e.g., coal logistics, fuel transportation), potentially affecting workers and businesses dependent on these activities.

Community impacts:

Decommissioning, repowering, or development of new energy assets (such as solar farms, wind facilities, or battery storage sites) may affect land use, local employment, and economic activity in host communities. Conversely, new project development can generate local employment, infrastructure investment, and community development opportunities.

Consumer/customer impacts:

Changes in energy pricing structures associated with the transition (e.g., investment in new technologies, potential changes in tariff structures) may affect affordability and access to electricity for industrial customers and, indirectly, end consumers.

Assessment of Social Implications of GPSC's Net-Zero Transition Plan

To address the social risks identified and to support a just transition, GPSC has implemented or plans to implement the following actions:

Workforce-related impacts:

GPSC is committed to managing workforce impacts through proactive human capital planning. This includes:

- **Reskilling and upskilling programs** for employees in roles affected by the shift toward renewable energy, energy storage, and hydrogen technologies, covering approximately 18 employees as of 2025.
- **Internal redeployment pathways** to transfer employees from conventional energy operations to new low-carbon business units where feasible.
- Occupational health and safety training programs aligned with new technologies (e.g., battery storage safety, hydrogen handling).
- **No involuntary job losses** directly attributable to the net-zero transition to date; GPSC commits to prioritizing internal redeployment and retraining over redundancy where operationally possible.

Supply chain impacts:

GPSC engages with key suppliers and contractors to understand the potential employment implications of shifting procurement toward renewable energy and low-carbon technology supply chains, and to support supplier diversification and transition where feasible.

Community impacts:

For communities hosting GPSC's renewable energy and low-carbon projects, GPSC implements community engagement programs, local hiring initiatives, and community development funds. As of 2025, GPSC's community investment programs related to new energy projects have benefited approximately 3,309,461 Bath for community’expenses dropped and community’s greater access to renewables 199.65 kWp/a year

Consumer/customer impacts:

GPSC monitors the cost implications of its transition investments to manage potential impacts on energy pricing for industrial customers, balancing decarbonization investment with competitive and stable energy pricing.

THANK YOU

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