



Energizing Today For a Brighter Tomorrow



IFRS Disclosure 2025

Electricity Generating Public Company Limited

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Executive Summary

EGCO is committed to integrating climate-related considerations into its governance, strategy, risk management, and performance metrics to support its long-term sustainability goals. The company has established a robust governance framework, with dedicated committees overseeing climate initiatives. These include the Investment Committee, which allocates capital towards sustainable projects, and the Nomination & Remuneration Committee, which aligns executive incentives with climate-related KPIs.

EGCO's climate strategy is anchored in its ambition to achieve carbon neutrality by 2040 and net zero emissions by 2050. The company has ceased investment in coal-fired power plants and is actively expanding its portfolio of clean and renewable energy assets. Scenario analysis is used to assess both transition and physical climate risks, ensuring strategic resilience.

Risk management is embedded across the organization, with climate-related risks evaluated through both qualitative and quantitative assessments. EGCO has adopted an internal carbon pricing mechanism and continuously aligns

its practices with international standards. Key risks include flooding and water scarcity, while transition risks involve regulatory changes such as carbon pricing and the global shift to renewables.

To track progress, EGCO has established clear metrics and targets, including emissions intensity reduction and increased investment in low-carbon businesses. Performance is monitored through KPIs and integrated into strategic planning.

Overall, EGCO's climate risk assessments—both qualitative and quantitative—highlight the company's exposure to physical and transition risks, while also identifying opportunities in renewable energy. These insights inform mitigation strategies and position EGCO to thrive in a low-carbon economy.

This comprehensive approach ensures that EGCO is well-prepared to address climate-related risks and capitalize on opportunities in the transition to a low-carbon economy.

Introduction

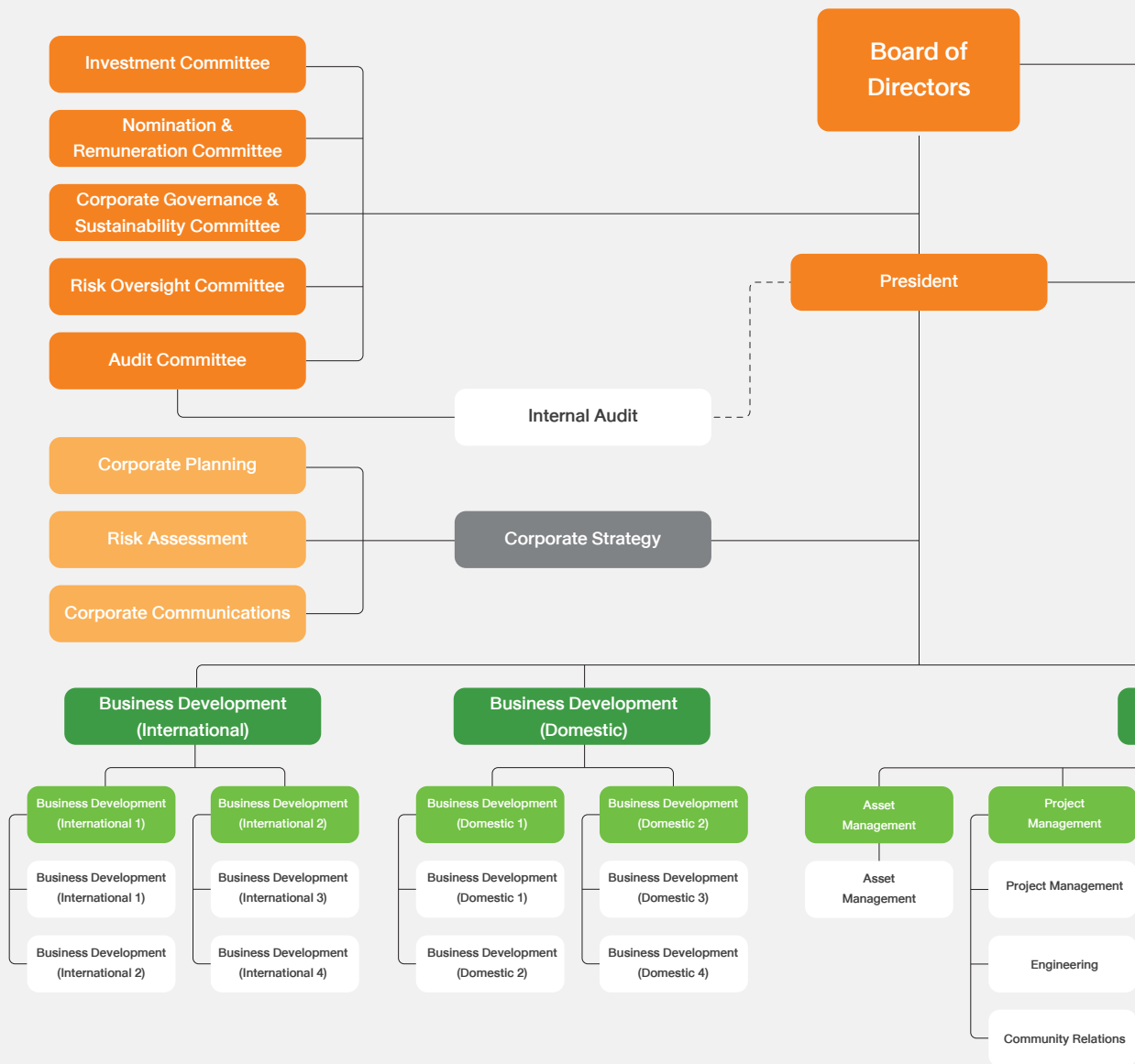
The Electricity Generating Public Company Limited (EGCO) acknowledges the pivotal role of the power sector in global climate change efforts, striving to limit temperature rises to 1.5°C as per the Paris Agreement. With climate change being an increasingly material issue, EGCO is committed to become carbon neutral by 2040 and achieve net zero emissions by 2050. Recognizing the pressing need for rapid decarbonization, EGCO also firmly declares our refusal to further invest in coal-fired power plants with a shifted focus toward clean and renewable energy sources. EGCO has been continuously making public disclosures on our performance and key initiatives demonstrating EGCO's commitment to all stakeholders to furthering this agenda.

To better understand and manage climate-related impacts on our business, EGCO has been actively working on climate-related disclosure in accordance with the IFRS S2 Sustainability Disclosure Standard to communicate to our investors and stakeholders about the anticipated financial impacts of climate change and the company's resilience strategy to these impacts. EGCO intends to continuously improve our climate-related performance and associated disclosures to be in line with best international practices.

Governance

Recognizing the power sector's critical role in driving climate action and the transition towards a low-carbon economy and society, EGCO has effectively incorporated climate change issues into its governance structure, spanning from the Board level to managerial positions. Notably, climate issues are an integral part of the Board of Directors' annual agenda, affirming their significance. The roles and responsibilities of the Board, Board-level committees, and managerial functions are described below.

Figure 1 EGCO'S Organization Structure



As of January 1, 2025

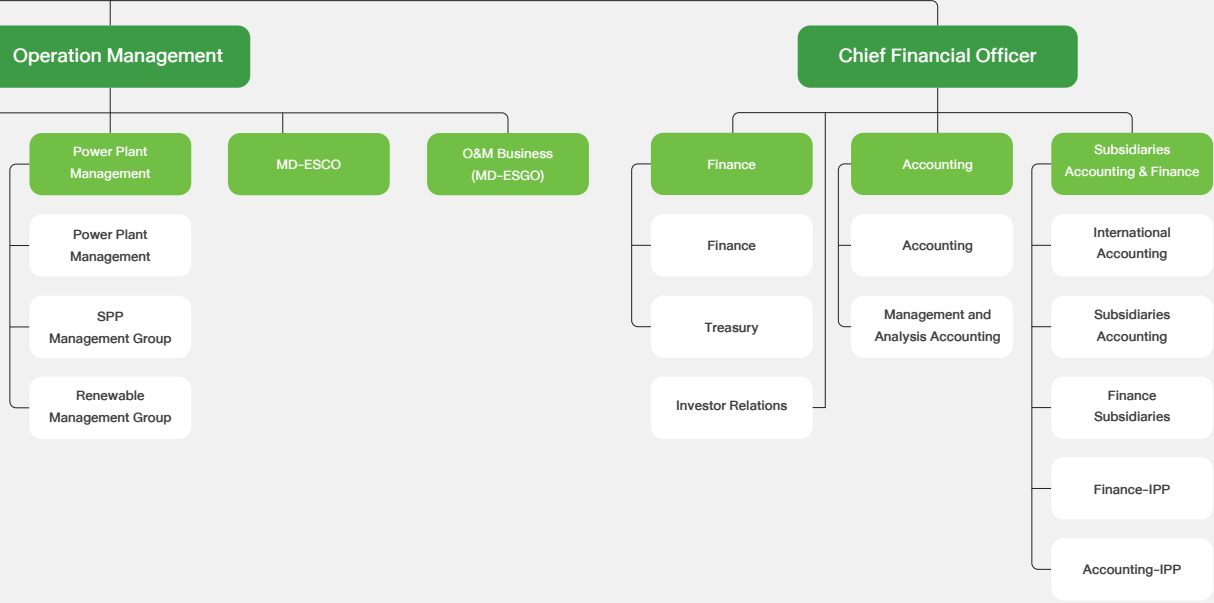
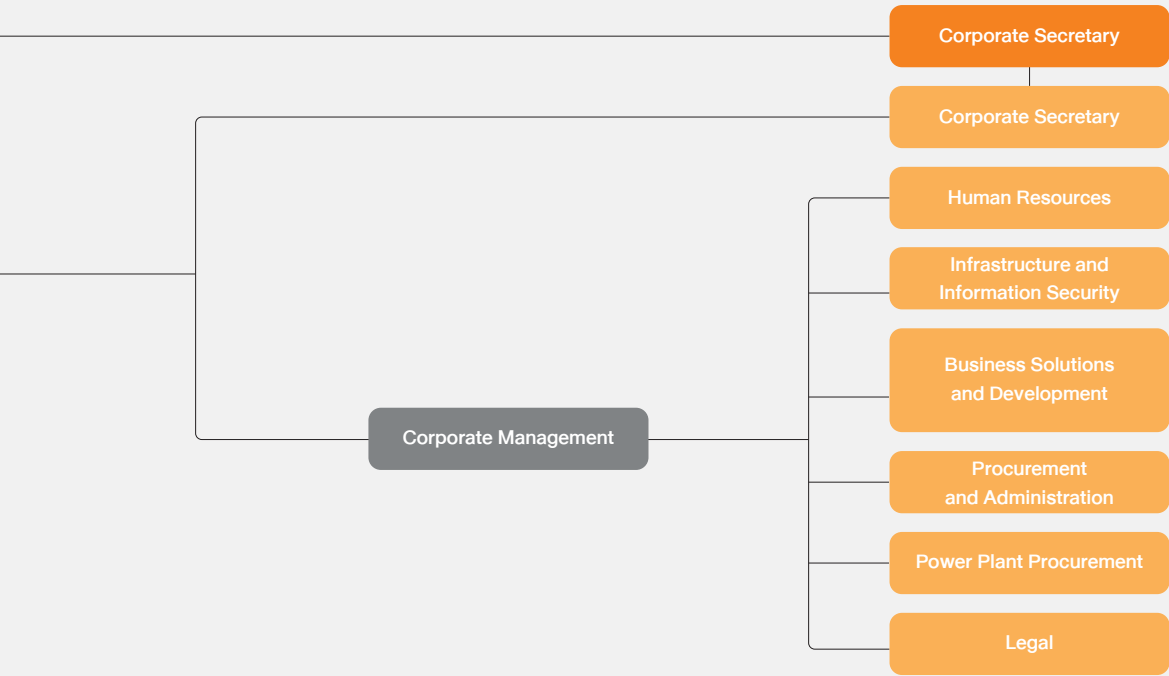


Table 1 EGCO's Climate Governance

EGCO Functions	Function Level	Climate Risks & Climate Strategy Roles and Responsibilities	Meeting Frequency
Board of Directors (BoD)	Governance (Board)	<ul style="list-style-type: none"> Approves climate strategy and climate-related annual action plans, and KPIs, targets and goals. Oversees progress against goals and targets related to climate change and conduct quarterly meetings to review progress of Climate action plans and KPIs. 	Quarterly
Corporate Governance & Sustainability Committee (CC)	Governance (Board)	<ul style="list-style-type: none"> Provides oversight over the implementation of climate strategy and climate-related risks and opportunities management at the corporate level. Endorses climate strategy, climate-related policies, objectives, and annual plans, in line with strategic plans, for the Board's approval. 	Quarterly
Risk Oversight Committee (ROC)	Governance (Board)	<ul style="list-style-type: none"> Assesses monthly the corporate risks, which includes climate-related risks and opportunities, and risk mitigation plans under the risk management systems and processes as presented by the Risk Assessment Division. At least bi-annually reviews the progress of climate-related issues and initiatives, corporate action plans, KPIs, targets and goals. 	Monthly
Investment Committee (IC)	Governance (Board)	<ul style="list-style-type: none"> Directs annual budgets and approve major CAPEX, acquisitions, mergers, and divestitures 	Quarterly
Nomination & Remuneration Committee (NRC)	Governance (Board)	<ul style="list-style-type: none"> Directs employee incentives for climate related KPIs 	Twice a year
Executive Management Committee (EMC)	Management	<ul style="list-style-type: none"> Incorporates climate-related risks and climate strategy into EGCO's business strategy. Monitors the implementation of climate strategy to align with strategic direction, areas of action, goals, targets, projects - and timely presentation to the Board. Assigns responsibilities for climate strategy and risk management implementation. 	Monthly
Risk Management Committee	Management	<ul style="list-style-type: none"> Integrates climate-related risks and opportunities assessment and management into risk management systems and processes. Oversees the risk management of EGCO and routinely reports to the Risk Oversight Committee and the Board of Directors. 	Monthly
Corporate Planning	Department	<ul style="list-style-type: none"> Identify comprehensive action plans, key performance indicators (KPIs), and target in alignment with EGCO climate strategy and review at least quarterly. Coordinates with internal stakeholders for climate-related issues. Responsible for climate reporting and disclosure to external stakeholders. Assigns responsibilities for climate strategy and risk management implementation. 	Monthly
Risk Assessment (RA)	Department	<ul style="list-style-type: none"> Monitor and assess corporate risks, including climate-related risks. Reports to the RMC and ROC on a bi-annually basis. Conduct project assessment for all new projects. 	Monthly

EGCO Functions	Function Level	Climate Risks & Climate Strategy Roles and Responsibilities	Meeting Frequency
Asset Management	Department	<ul style="list-style-type: none"> Oversees the overview of power plant operation (including Financial, Non-financial and Operation performance summary from power plants). Monitors GHG emissions and climate related-risks and implementation of low carbon projects at each asset Monitors asset performance at a managerial and central level and liaises with internal stakeholders on physical and transition risks Conduct internal inspections and on-site audit. 	Monthly
Business Development (BD)	Department	<ul style="list-style-type: none"> Incorporates climate-related risks and opportunities into strategic business decisions Integrates the climate strategy into EGCO's overall business strategy and in identifies business opportunities 	Monthly
Power Plant Management (PPM)	Department	<ul style="list-style-type: none"> Oversees operational management, including general management of each power plants and reporting of GHG emissions and climate-related risks at plant level. Responsible for the implementation of low carbon projects and climate-related risks management at operations Conduct internal inspections and on-site audit. 	Monthly
Power Plant	Department	<ul style="list-style-type: none"> Responsible for driving sustainability and climate-related policies at operational assets Tracks and reports progress of implemented low-carbon projects and climate-related risks management at operations against targets. 	Monthly
Finance	Department	<ul style="list-style-type: none"> Assesses financial implications of climate-related risks and opportunities. Integrates climate-related financial risks disclosures into mainstream reporting. 	Monthly
Procurement	Department	<ul style="list-style-type: none"> Responsible for selecting suppliers taking into considerations their contribution toward low-emission products and services. 	Monthly

Climate-related KPIs and Incentives

EGCO has implemented corporate-wide climate-related Key Performance Indicators (KPIs) and targets to drive climate action at all levels of the organization, from CEO to business unit managers, power plant teams, and employees. These KPIs, approved by the Board of Directors, focus on carbon intensity reduction and increasing renewable energy generation. Additionally, each power plant has its own established KPIs to improve sustainability performance in areas such as GHG emissions reduction, energy efficiency improvement, and pollution control.

In 2022, EGCO announced its corporate targets and KPIs for reducing GHG emissions. These targets include a 10% reduction in carbon emission intensity by 2030 from a 2020 baseline and increasing power generation from renewable energy to 30% of overall capacity by 2030. Achieving these targets aligns with EGCO's long-term goal of becoming a Carbon Neutral Organization by 2040 and achieve Net Zero by 2050. The CEO, business unit manager and employee are provided with a monetary incentive associated with these targets and related KPIs, emphasizing the importance of executive engagement in driving climate action. In 2023, 28% of executive management remuneration was linked to climate-related considerations.

Risk Management and Climate Strategy

3.1 Climate-Related Risks and Opportunities Management

EGCO has made climate-related risks and opportunities management one of the company’s primary goals. The Group identifies, assesses and manages climate-related risks (and opportunities) in accordance with the procedures defined in the company’s **Risk Management Manual**, which was developed in line with the 2017 COSO-Enterprise Risk Management framework (COSO ERM). It is common for the Power sector that the climate-related risks are generally considered under Operational Risk (e.g. risk from water shortage caused by extreme climate conditions) and Compliance Risk (e.g. carbon tax). Climate change oversight has been allocated to the Corporate Sustainability Steering Committee which reports to the Corporate Governance and Sustainability Committee and incorporates performance against climate-related goals that are informed by climate

risks and opportunities assessments into the company-wide KPIs to ensure a rigorous approach to the issue. EGCO has established Key Risk Indicators (KRIs) which comprise the leading and lagging indicators in risk management and has also encouraged the employees to appropriately utilize these KRIs in their operations, along with monitoring and evaluating procedures, as well as periodic reporting to the Board and the Board Committees.

The Risk Assessment Division (RA) is responsible for monitoring, assessing, and reporting Corporate Risk Management Performance to the Risk Management Committee (RMC) and the Risk Oversight Committee (ROC) according to the EGCO’s risk management policy. Risk mitigation actions and plans are established under the purview of ROC upon determination of risk level and probably impact towards earning loss, business interruption and reputation.

Figure 2 EGCO’S Risk Management Process



3.2 Scenario Analysis

EGCO uses climate-related scenario analysis to inform the identification of climate risks. The assessment of climate-related risk scenarios is reviewed and categorized based on scenario patterns: the climate impact of key transitional and physical risks under specific scenarios. For this analysis, EGCO included the following inputs:

Table 2 Scenario Analysis Inputs

Scope
<ul style="list-style-type: none"> For transition scenario analysis, group-wide impacts were assessed. For physical scenario analysis, a total of 19 assets were assessed, and generated revenue for EGCO around 71% of operations. Considered the impacts of climate change on three aspects of EGCO's business operations: fossil-fuel-based generation, green energy generation, and supply chain (including upstream and downstream impacts). Business operations and value chain impacts were assessed.
Transition Scenarios ¹
<ul style="list-style-type: none"> IEA Stated Policies Scenario (STEPS): a scenario that takes account of announced climate-related policies (e.g. the Paris Agreement, 'Nationally Determined Contributions'), but does not forcefully pursue decarbonization. Implied climate warming is between 2.5°C and 3.3°C. IEA Announced Pledges Scenario (APS): a scenario which assumes all climate commitments made by governments around the world and longer-term net zero targets will be met in full and on time.
Physical Scenarios
<ul style="list-style-type: none"> Baseline: Based on historical data at the location of EGCO's assets. IPCC SSP 2.6: Assesses physical phenomena that occur when the transition to low carbon society is incorporated, and Paris Agreement goals are met. IPCC SSP 8.5: Demonstrates the physical impacts in the worst-case scenario where no measures are taken to combat climate change.
Time Horizons
<ul style="list-style-type: none"> Short-term: 2025 is identified as the baseline representing short-term impact. Mid-term: 5-10 years, represented by 2030 to estimate impacts and prioritize mitigation actions, while considering the expected lifetime of assets and PPAs. Long-term: Over 10 years, represented by 2050 to align with EGCO's Net Zero target.

The scenario analyses, for both transition and physical risks, are assessed qualitatively and quantitatively. In the qualitative assessment, the nature of each climate driver is assessed to determine whether the driver is a risk or opportunity. To understand the direction of change, likelihood, and magnitude of impacts on EGCO's business, EGCO uses

scenario data from the International Energy Agency (IEA) to inform the assessment. For specific climate drivers that result in the highest risks and opportunities, EGCO quantitatively assesses the financial impact of these drivers on EGCO's business to better understand the magnitude of impacts and develop appropriate response measures

¹ The transition scenario analysis conducted this year utilizes data from the IEA World Energy Outlook 2024.

3.2.1 Transition Scenario Analysis

The scenario analysis on transition risks and opportunities was intended to comprehensively analyze EGCO's exposure to potential impacts arising from a global transition to a low-carbon economy. Through internal stakeholder consultation, EGCO first identified transition drivers that were relevant to the business before conducting a semi-quantitative assessment and prioritization of transition drivers to EGCO's business and value chain under the selected scenarios. EGCO's scenario analysis intended to include

both the upstream risks, such as carbon tax on suppliers, and downstream opportunities, such as decarbonization of the transportation sector, for a holistic understanding of the transition risks and opportunities that could impact EGCO. EGCO then quantified the potential financial impact of the carbon tax and expected renewable electricity growth (Annex A). Consequently, EGCO has developed response measures to mitigate expected risks and capture potential opportunities.

Table 3 Transition Scenario Analysis Results and Implications²

Transition Drivers	Potential Impact ³									Financial Impact (Without Any Intervention by EGCO) ⁴	Implications for EGCO	Response Measures
	Fossil-Based Energy Generation			Renewable Energy Generation			Supply Chain					
	2025	2030	2050	2025	2030	2050	2025	2030	2050			
Carbon Pricing (Current Regulation Risk) <i>Carbon pricing raises operational costs for fossil fuel-based power plants, affecting profitability and competitiveness.</i>										<ul style="list-style-type: none"> The % impact of carbon pricing under the STEPS scenario on revenue is projected to be 5.93% in 2030 and 63.58% in 2050.⁴ Under the APS scenario, the impact of the carbon pricing on revenue is projected to be 12.43% in 2030 and 321.59% in 2050. The estimated impact between 2025-2030 (5 years) is approximately 1,541 million THB.⁴ 	<ul style="list-style-type: none"> Increasing the OPEX to electricity generation based on coal & natural gas. Demand for green electricity/energy will increase as it becomes more cost-competitive with fossil-based electricity/energy Carbon tax may also apply to fuel suppliers & distributors, increasing OPEX. 	<ul style="list-style-type: none"> Set up an internal carbon price (ICP) which reflects current or expected carbon pricing on operating and supplier jurisdictions Business expansion in the market where renewable energy generation is driven by regulations or client's needs Pursue initiatives with suppliers to align with a Carbon Neutral strategy, focusing on reducing emissions and impact.

² EGCO assesses the short-, medium- and long-term impact of transition risks as part of its corporate risk management, which includes Government Policy, Legislative Change, and Compliance Risk Due to Climate Change. Additional information can be found in the Sustainability Report p.56.

³ Significant changes in this year's results are due to changes in this year's selection of scenarios comprising STEPS and APS with the APS dataset being updated in 2024. In comparison to the previous year's selection of STEPS and APS with the APS dataset updated in 2024, this year's assessment is more stringent. Notable changes in results include a carbon tax in the renewable energy portfolio identified as transition risk, Development of new and more efficient technologies identified more intensity in risks and stigmatization of the industry has identified as transition risk.

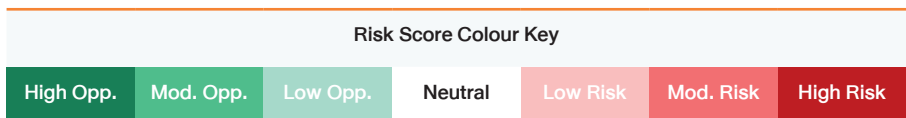
⁴ Estimated financial impact is based on various assumptions including carbon process in different locations provided IEA 2024 Scenario Data, projected EGCO's Scope 1 and 2 GHG emissions using EGCO's business expansion plan. Actual cost will be varied based on emerging regulation and country specific policy. It is recommended for EGCO to monitor and update climate-related scenario assessment in every 3 years or before if there is a significant change in key strategic location of EGCO's business operation.

Transition Drivers	Potential Impact ³									Financial Impact (Without Any Intervention by EGCO) ⁴	Implications for EGCO	Response Measures
	Fossil-Based Energy Generation			Renewable Energy Generation			Supply Chain					
	2025	2030	2050	2025	2030	2050	2025	2030	2050			
												<ul style="list-style-type: none"> • Develop plan to reduce emission such as invest in CCUS or increase proportion of renewable-based generation. • Pursue opportunities in line with the Net Zero strategy (including no new investments in coal power plants and investments in CCUS at the KEGCO power plant in 2030) to reduce emissions and impacts. The estimated long-term (2050) cost of response is 63,903 million THB).
Regulatory changes (Emerging Regulation Risk) <i>Regulation changes can impose operational, financial, and regulatory burdens on power plants, necessitating investment in compliance, data management, and resources</i>										<ul style="list-style-type: none"> • Not yet calculated 	<ul style="list-style-type: none"> • Regulatory changes may decrease fossil fuel use due to higher procurement costs (OPEX), such as increased taxes or the rising cost of transporting coal and natural gas as all generations linked to PPA, merit order, and planned fossil fuel phase out. • Policy and regulatory trends are increasingly supporting the use of renewable energy. • The same trend will occur with fossil fuel suppliers and service providers due to increased costs and OPEX due to new regulations. 	<ul style="list-style-type: none"> • Stay update on news and policy changes. • Disclose corporate policy adjustments that align with government regulations to maintain a strong reputation. • Increase investment in clean energy power plants to align with evolving policy guidelines and support sustainability goals. • Pursue initiatives with suppliers to align with a Carbon Neutral strategy, focusing on reducing emissions and impact. • Develop plans to reduce emission such as invest in CCUS or increase proportion of renewable-based generation.

Potential Impact³

Transition Drivers	Fossil-Based Energy Generation			Renewable Energy Generation			Supply Chain			Financial Impact (Without Any Intervention by EGCO) ⁴	Implications for EGCO	Response Measures
	2025	2030	2050	2025	2030	2050	2025	2030	2050			
<p>Development of new and more efficient technologies (Technology Risk) <i>Investing in efficient technologies can reduce costs, improve compliance, and boost competitiveness.</i></p>										<ul style="list-style-type: none"> • Not yet calculated 	<ul style="list-style-type: none"> • New, efficient technologies could make fossil fuel plants obsolete, driving up upgrade costs or lowering demand. (e.g. CCUS) • New renewable technologies could surpass current systems, necessitating upgrades and reducing competitiveness. • CCUS may also apply to fuel suppliers & distributors, their investments may be reflected in increasing costs, thus increasing OPEX. 	<ul style="list-style-type: none"> • Conduct a preliminary assessment for carbon capture and storage (CCS). • Experimenting with integrating clean energy alongside traditional energy sources. • Invest in cost-effective, high-capacity energy storage like solid-state batteries, pumped hydro, advanced lithium-ion batteries for reliable storage, new commercial or efficient solar panels for achieving higher rate of converting sunlight into electricity. • Find ways to collaborate with suppliers on energy transformation. • Develop plan to reduce emission such as invest in CCUS for reduce price in long term.
<p>Changing customer behavior towards net-zero (Market Risk) <i>Shifts in customer behavior towards net-zero can affect EGCO through demand volatility, regulatory changes, asset devaluation, business model disruption, increased competition, and uncertainties in the value chain.</i></p>										<ul style="list-style-type: none"> • Not yet calculated 	<ul style="list-style-type: none"> • The demand for fossil energy is expected to decrease, which could result in assets and investments not generating the anticipated returns. 	<ul style="list-style-type: none"> • Collect and analyze customer electricity usage data from fossil energy sources. • Reduce electricity production from fossil fuels.

Transition Drivers	Potential Impact ³									Implications for EGCO	Response Measures	
	Fossil-Based Energy Generation			Renewable Energy Generation			Supply Chain					Financial Impact (Without Any Intervention by EGCO) ⁴
	2025	2030	2050	2025	2030	2050	2025	2030	2050			
Renewable generation (Market Opportunity) <i>By adopting advanced technologies and integrating renewable sources like solar, wind, and storage, plants can boost efficiency, lower costs, and improve energy reliability.</i>										<ul style="list-style-type: none"> Under the STEPS scenario, projected Potential RE revenue as opportunity is 119% in 2025, dropping 34% by 2030. The estimated opportunity between 2025-2030 (5 years) is approximately 4,024 million THB. Under the APS scenario, revenue reaches 9,021 million THB in 2025 and peaks at 9,193 million THB in 2030, before declining to 1,738 million THB in 2050 due to EGCO's accelerated RE targets (85% vs. WEO's 89%). 	<ul style="list-style-type: none"> Integrating new renewables, such as advanced energy storage systems, smart grids, and hybrid solutions, can boost efficiency, grid stability, and create new market opportunities. 	<ul style="list-style-type: none"> Invest in innovative renewable energy technologies, such as Hybrid Renewable Systems, Energy Storage, and Smart Grids & AI, to meet demand effectively. Increase production of RE to meet forecasted consumption demand in STEPs. The average annual cost associated with developing this opportunity is at least 6,000 million THB per year.
Stigmatization of the industry (Reputation Risk) <i>As sustainability concerns grow, power companies may face public backlash, resulting in decreased customer loyalty, investor pullback, and regulatory pressure.</i>										<ul style="list-style-type: none"> Not yet calculated 	<ul style="list-style-type: none"> As society prioritizes sustainability and clean energy, fossil fuels may still help meet some demand alongside green energy, but improved regulation and communication are essential. The growing demand for electricity and green energy has boosted the reputation of renewable energy power plants. 	<ul style="list-style-type: none"> Ensure production volumes meet customer demand while adhering to environmentally and socially responsible principles. Establish guidelines for electricity generation with strong management services that align with international principles, such as pollution control and sustainable energy generation practices.



3.2.2 Physical Scenario Analysis

Acute and chronic risks of climate change from a variety of conditions, such as flooding, extreme wind and storm, water scarcity/water stress, and extreme heat are evaluated as physical risk factors. EGCO prioritized 19 assets to be assessed against physical climate impacts, whereby each asset's location was reviewed and the related regional and country-level physical risks were assessed and evaluated. At this level, a "hot spot" site-level risk analysis was conducted, and EGCO seeks to expand this risk analysis further in the

upcoming years. In this initial stage, EGCO has identified two core risk areas and quantified their potential financial impact to EGCO's business under various scenarios. It is important to note that this risk and impact analysis is conducted under the assumption of **no intervention conducted** by EGCO. Through this, EGCO has developed short-term (less than 5 years) group-level strategic responses, covering all existing and new operations (100%), to address and mitigate these risks.

Figure 3 Physical Scenario Analysis Heat Map (Own Operation) - SSP1-2.6 and SSP5-8.5

Aggregation of Hazard-Type Risk Scores (SSP5)	Number of Assets	Extreme Heat			Water Stress & Drought			Extreme Winds & Storms			Flooding		
		BL	2030	2050	BL	2030	2050	BL	2030	2050	BL	2030	2050
All assets	19	Low	Moderate	Moderate	Moderate	Moderate	Moderate	Low	Low	Low	Low	Moderate	Moderate
Location													
Thailand	13	Low	Moderate	Moderate	Moderate	Moderate	Moderate	Minimal	Low	Low	Low	Low	Low
Laos PDR	1	Minimal	Low	Moderate	Minimal	Minimal	Minimal	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
Philippines	2	Low	Moderate	Moderate	Minimal	Minimal	Minimal	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
South Korea	1	Minimal	Low	Moderate	Low	Low	Low	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
United States	2	Minimal	Low	Low	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Minimal	Minimal	Minimal

Aggregation of Hazard-Type Risk Scores (SSP5)	Number of Assets	Extreme Heat			Water Stress & Drought			Extreme Winds & Storms			Flooding		
		BL	2030	2050	BL	2030	2050	BL	2030	2050	BL	2030	2050
All assets	19	Low	Low	Low	Moderate	Moderate	Moderate	Low	Low	Low	Low	Moderate	Moderate
Location													
Thailand	13	Low	Low	Moderate	Moderate	Moderate	Moderate	Minimal	Low	Low	Low	Low	Low
Laos PDR	1	Minimal	Low	Low	Minimal	Minimal	Minimal	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
Philippines	2	Low	Moderate	Moderate	Minimal	Minimal	Minimal	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
South Korea	1	Minimal	Low	Low	Low	Low	Low	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
United States	2	Minimal	Low	Low	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Minimal	Minimal	Minimal



**Figure 4 Physical Scenario Analysis Heat Map
(Upstream and Downstream) - SSP1-2.6 and SSP5-8.5**

Aggregation of Hazard-Type Risk Scores (SSP5)	Number of Assets	Extreme Heat			Water Stress & Drought			Extreme Winds & Storms			Flooding		
		BL	2030	2050	BL	2030	2050	BL	2030	2050	BL	2030	2050
All assets	6	Green	Orange	Orange	Green	Green	Green	Orange	Orange	Orange	Orange	Orange	Orange
Upstream	5	Green	Orange	Orange	Green	Green	Green	Orange	Orange	Orange	Orange	Orange	Orange
Downstream	1	Green	Orange	Orange	Grey	Grey	Green	Orange	Orange	Orange	Orange	Orange	Orange
Location													
Thailand	2	Green	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
Laos PDR	2	Green	Green	Orange	Grey	Grey	Grey	Orange	Orange	Orange	Orange	Orange	Orange
Indonesia	1	Green	Orange	Orange	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
South Korea	1	Grey	Green	Orange	Green	Green	Green	Orange	Orange	Orange	Grey	Grey	Grey

Aggregation of Hazard-Type Risk Scores (SSP5)	Number of Assets	Extreme Heat			Water Stress & Drought			Extreme Winds & Storms			Flooding		
		BL	2030	2050	BL	2030	2050	BL	2030	2050	BL	2030	2050
All assets	6	Green	Orange	Orange	Green	Green	Green	Orange	Orange	Orange	Orange	Orange	Orange
Upstream	5	Green	Orange	Orange	Green	Green	Green	Orange	Orange	Orange	Orange	Orange	Orange
Downstream	1	Green	Orange	Orange	Grey	Grey	Grey	Orange	Orange	Orange	Orange	Orange	Orange
Location													
Thailand	2	Green	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
Laos PDR	2	Green	Orange	Orange	Grey	Grey	Grey	Orange	Orange	Orange	Orange	Orange	Orange
Indonesia	1	Green	Orange	Orange	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
South Korea	1	Grey	Orange	Orange	Green	Green	Green	Orange	Orange	Orange	Grey	Grey	Grey

Table 4 Physical Risks Impact and Business Implications

Hazard	High Exposure Assets	Key Findings	Business Implications	Potential Financial Impact	Response Measures/ Adaptation Plan (2025-2030)
Extreme Heat	<ul style="list-style-type: none"> Power Plant: Natural Gas and Thermal & Fossil Fuel Power Plant: Solar PV 	<ul style="list-style-type: none"> Climate change projections indicate higher maximum temperatures and longer warm spell duration in the future. Projected to have significantly increased hazard impact on most of asset types. The impact is particularly high for Solar and Natural Gas plants, where a moderate to significant increase is expected on top of an existing very high-risk hazard. 	<p>Natural Gas</p> <ul style="list-style-type: none"> Extreme heat may increase the energy demand needed for cooling of heat sensitive assets as well as indoor where the personal are working. Extreme heat may impact any heat sensitive chemicals on site. The power output of a natural gas combined cycle power plant can decrease with increasing ambient air temperature. <p>Thermal Fossil Fuel</p> <ul style="list-style-type: none"> Higher ambient temperatures and warmer cooling water reduce the plant efficiency and electrical output. Higher temperatures may cause water used for cooling to exceed thermal discharge limits. There may be an increased energy demand for cooling from customers which can increase pressures on the system and may lead to power outages. <p>Solar PV</p> <ul style="list-style-type: none"> Higher ambient temperatures and warmer cooling water reduce the plant efficiency and electrical output. Higher temperatures may cause water used for cooling to exceed thermal discharge limits. There may be an increased energy demand for cooling from customers which can increase pressures on the system and may lead to power outages. 	<ul style="list-style-type: none"> Not yet calculated 	<ul style="list-style-type: none"> Employee training to identify heat stress symptoms and provide first aid. Evaluate and improve existing operational temperature ranges of cooling systems, turbines panels for projected extreme temperature ranges. Install energy-efficient cooling systems. Implement highly efficient water use systems, e.g., automated cleaning with recycled water.

Hazard	High Exposure Assets	Key Findings	Business Implications	Potential Financial Impact	Response Measures/ Adaptation Plan (2025-2030)
			Hydropower <ul style="list-style-type: none"> • Extreme heat can increase evaporative losses in reservoirs, reducing the water available for electricity generation. • During low water availability conditions, plants may need to release water from their reservoirs to help downstream operations, leading to a drop in energy production. 		
Flooding (River Flooding, Extreme Rainfall Flooding, Coastal Flooding)	<ul style="list-style-type: none"> • Power Plant: Natural Gas and Thermal & Fossil Fuel • Power Plant: Solar PV • Power Plant: Hydropower 	<ul style="list-style-type: none"> • It is observed that Assets located in Southeast Asia are more prone to Flood hazards. Climate projections indicate an increasing trend in extreme rainfall in this region. • Since most of EGCO's fossil fuel-based power plants have very risk to flooding from the baseline, it is essential that robust risk management measures are in place. • Solar and hydropower plants are also at significant risk of flooding, and this risk is expected to increase in the future. 	Natural Gas <ul style="list-style-type: none"> • Flooding may also impact gas extraction and processing facilities as well as damage equipment in compressor stations. • This can result in downtime whilst maintenance works as well as the associated costs and potential reputational damage. • Pipelines located near rivers may experience ground instability and subsidence associated with flooding. This can cause damage and gas leaks which need to be repaired. Thermal Fossil Fuel <ul style="list-style-type: none"> • Water on site can exceed the site's drainage capacity and cause physical damage to the site, equipment and vehicles associated with operations e.g. failure of electrical control systems and generators. • Physical damage could lead to site shut down for a number of days to weeks to repair or replace equipment/ infrastructure which would increase costs and reduce revenue. • Flooding can cause blockages and/or closures of key site access routes. 	<ul style="list-style-type: none"> • Paju ES showed the highest climate-related flooding risk for all timeframe and scenario. • Impact from flood risk event resulting in financial impact in terms of revenue loss compared to revenue is 16% in 2030 and 2050 in SSP1-2.6. • An anticipated cost of 571.6 million THB is shown in 2050 for the SSP1-2.6 scenario only. • The insurance coverage- corresponding to the total annual gross profit, approximately 3,304.6 million THB in 2030 and 3,521 million THB in 2050-indicates that the estimated climate-related flood risk is adequately covered. • Financial Implication is 536 million baht (5 years from 2025 - 2030) in SSP1-2.6 and SSP5-8.5 	<ul style="list-style-type: none"> • In-depth flood risk assessment to identify flood prone areas for all key locations. • Design and implement suitable mitigation measures such as increasing capacity of water drainage or pumping systems, construction of flood barrier where needed, etc. • Implement early warning systems at sites exposed to flooding risks and conduct capacity building/training on safety measures during floods for employees. • Collaborate with other stakeholders to plan for flood risk management. • Provide Reservoir Sedimentation Management • Installed Flood protection infrastructure has been installed. For instance, at a co-generation power plant in Thailand EGCO has installed. flood walls with management costs of ~10 million THB.

Hazard	High Exposure Assets	Key Findings	Business Implications	Potential Financial Impact	Response Measures/ Adaptation Plan (2025-2030)
			<ul style="list-style-type: none"> • Site closure may lead to power outages for customers which will lead to loss of revenue and potential reputational damages. • Solar PV • The floodwater would need to be sufficiently high enough to reach the panels so the exposure will depend on the installation. • There may be downtime whilst repairs and maintenance take place. • Hydropower • Sediment and debris carried by floodwater can block dam spillways and large volumes of water can damage key structural components and infrastructure such as the powerhouse and collapse the dam structure. 		
<p>Extreme Winds & Storms</p>	<ul style="list-style-type: none"> • Power Plant: Natural Gas and Thermal & Fossil Fuel • Power Plant: Hydropower 	<ul style="list-style-type: none"> • It should be noted that in recent years an increasing number of cyclones have been reported to affect some parts of the Globe. • Considering the locations of the assets, minimal to moderate change in cyclone hazard is expected. The future cyclone trend indicates a significant increasing trend in Southeast Asia and East Asia region. 	<p>Natural Gas</p> <ul style="list-style-type: none"> • They can cause physical damage to the above ground equipment and infrastructure, such as compressor stations, flare stacks, gas storage containers, distribution centers and offices. • Gas supply may be disrupted if there is sufficient damage to the infrastructure which could take days to weeks to repair. This can result in damage to revenue and reputation. 	<ul style="list-style-type: none"> • Not yet calculated 	<ul style="list-style-type: none"> • Implement early warning systems at sites exposed to extreme wind & storm risks and conduct capacity building/ training on safety measures during storms for employees. • Design and implement suitable mitigation measures such as increasing capacity of water drainage or pumping systems, construction of flood barrier where needed, etc. • Regularly maintain property before a storm

Hazard	High Exposure Assets	Key Findings	Business Implications	Potential Financial Impact	Response Measures/ Adaptation Plan (2025-2030)
		<ul style="list-style-type: none"> Assets in the Philippines and Taiwan are most exposed to cyclone and wind hazards and should expect a minimal to moderate increase in the risk and impact of the hazard. An increase in strong winds and cyclones may disrupt business operations due to damage to equipment. 	<p>Hydropower</p> <ul style="list-style-type: none"> Strong wind, landslides, debris, storm surges and flooding cause by cyclones can cause physical damage to hydropower plants by blocking spillways and potentially collapsing the dam structure. They can also damage the powerhouse, switchyard and electricity transmission systems. 		
<p>Water Stress and Drought</p>	<ul style="list-style-type: none"> Power Plant: Natural Gas and Thermal & Fossil Fuel Power Plant: Solar PV Power Plant: Hydropower 	<ul style="list-style-type: none"> Climate change projections indicate minimal changes from the baseline on water scarcity across EGCO's assets. The water availability of water at the local level (e.g. at site) may be affected by water usage patterns in and around the site area. For KEGCO and most solar powerplant, the baseline risk for water scarcity is high to very high and this risk continues to be a very high-risk hazard. EGCO may need to consider conducting detailed site-level water risk assessments and water stewardship programs to reduce potential business disruptions. 	<p>Natural Gas</p> <ul style="list-style-type: none"> There may not be enough water available for cooling systems which may lead to downtime. The cost of water may also go up during periods of water stress and drought. <p>Solar PV</p> <ul style="list-style-type: none"> There may be less available water for cleaning of the panels which would decrease operational efficiency and electrical output if they are dirty. The cost of water may also go up. The exposure could be rated low depending on the way the panels are cleaned e.g. AI robots use much less water than manual cleaning. <p>Hydropower</p> <ul style="list-style-type: none"> Operating below the Minimum Operating Level (MOL) risks incurring liquidated damages (LD) due to failure to meet the minimum power generation guarantees. This directly affects the financial performance of the company, as penalties can reduce profitability. 	<ul style="list-style-type: none"> From the scenario data, the lower bound for 2015-2020 is the lowest (8% for RCP2.6 (SSP1-2.6) and RCP8.5 (SSP5-8.5) in both scenarios) compared to the baseline. The future climate scenario (2025-2050) shows a decrease in the percentage of precipitation, but not lower than in 2020. The scenario data aligns with NTPC's historical record of low water levels in 2020, with the worst-case future scenarios remaining below the worst-case scenario of 2020. Therefore, the financial impact of decreased water availability (which leads to reduced water discharge through turbines) is expected to have a limited (financial impact = 0 baht) impact in future timeframes, as EGCO can manage electricity generation at lower volumes and has the rights to declare a drought year/season. 	<ul style="list-style-type: none"> Explore and invest in air-cooled or hybrid cooling systems that reduce water usage without compromising the plant's efficiency. Enhance the overall efficiency of power generation processes to reduce the heat load and the cooling water requirement. Implement highly efficient water use systems, e.g., automated cleaning with recycled water. Using reliable monthly inflow forecasts and generation simulations to make informed operational decisions is a mitigation strategy.

Hazard	High Exposure Assets	Key Findings	Business Implications	Potential Financial Impact	Response Measures/ Adaptation Plan (2025-2030)
		<ul style="list-style-type: none"> In July 2020, the NTPC reservoir experienced 'a record low water level' of 525.36 masl, which was below the minimum operating level (MOL) of 525.50 masl. This was due to the lower-than-average inflow since 1986. 			

In the upcoming years, EGCO seeks to develop a deeper understanding of the risks posed to sites through site-specific physical climate risk assessments, focusing on key assets and key hazards. As part of ongoing efforts to mitigate and adapt to physical risks, EGCO considers appropriate insurance products to cover damages and losses due to potential natural hazards at given locations and has developed context-specific mitigation plans for each site.

EGCO has prioritized asset water management as an integral part of physical risk mitigation and adaptation, which is further supported by the physical risks scenario analysis results where EGCO's assets have significant water-related risk exposure. To better understand the impact of these risks, EGCO has conducted demonstrational quantification of the financial impact of water scarcity and riverine floods in a scenario where no mitigation or adaptation efforts have been implemented by EGCO.

In implementing appropriate response measures for high water risk plants, such as at EGCO Cogen, EGCO has constructed water reservoirs to ensure year-round water supply and implemented fuel reservation plans to avoid operational disruptions. In flood risk areas, EGCO has implemented prevention action plans and emergency response measures, such as the construction of flood control structures. Additional adaptation efforts can be found in EGCO's sustainability reports.

3.3 Climate Strategy

EGCO transforms the results of climate risks and opportunities assessments into action plans and strategic frameworks. As a consequence of such assessments in recent years, EGCO has developed a climate strategy effectively through 2021-2030 with a strategic focus on the achievement of the GHG goals and implementation of key elements to pursue stellar climate change management. With the EGCO 2030 Strategic Climate Vision: "Accelerating the Energy Transition to a Low Carbon Society with Superior Innovation", EGCO's goals are focused on three key strategic pillars:

- **Resilient Portfolio** is based on phasing out carbon-intensive electricity generation in favor of increasing renewable electricity generation, with a target of 30% installed renewable energy capacity and 10% carbon intensity reduction (scope 1 & 2) within 2030. As resilience is a key element of ensuring growth in a transition towards a low-carbon society, based on our transition risks and opportunity assessment, renewable electricity growth and decarbonization of downstream sectors are expected to be key opportunities that EGCO seeks to capture under this Pillar.

- **Accelerate the Development of Innovative Businesses** by increasing revenue from low-carbon businesses, while also planning to promote decentralized renewable generation. To enhance the Group's drive towards innovative business, EGCO has been investing in renewable energy projects such as hydrogen power generation and other alternative energy technology companies. As evident by EGCO's analysis of global technological trends and opportunities assessment, hydrogen use has been identified as a key strategic focus for this pillar. EGCO seeks to pursue clean hydrogen in two of EGCO's plants and explore further capacity expansion.
- **Enabling Programs** to support capacity building and stakeholder engagement through improving internal climate risk and opportunity management. This also contributes to an organization's climate reputation. EGCO has developed KPIs and targets for capacity building and engagement initiatives, expects all conventional power plants to use Best Available Technology.

Further details under these three core strategic pillars can be found on pages 89-94 of EGCO's 2024 Annual Report. Additionally, further details on EGCO's climate lobbying efforts can be found in Annex B.

EGCO has also developed a net zero roadmap which outlines near-, medium-, and long-term key actions to achieve net zero ambitions and drive EGCO's climate strategy. EGCO will continue to employ this roadmap throughout upcoming years, to meet our goals.



Figure 5 EGCO's Net Zero Roadmap

Key Milestone Towards NET ZERO 2050

Energizing Today For a Brighter Tomorrow



Business Strategy
2025-2027

- 30% of renewable portfolio
 - Reduce 10% of CO₂ intensity
- 2030**



Co-firing up to 40% (by volumn)

H₂ Co-firing : Linden Unit 6
✓ (Completed in 2023)

NH₃ Co-firing : BLCP
The technical study with METI is completed and the feasibility study shall begin soon.



CCUS

- BLCP: Under the report preparation process
- KEGCO: Technical/Regulation/Business study and application for METI's funding program
- PAJU: Technical study with SK E&S on CCS Pilot Plant (Start operation in 2026)



Hydrogen Value Chain Capacity-building/Collaboration with potential partners

- Production, Distribution, Utilization
- MoU with BIG, DGA, and Thailand Post



New Business Opportunity

- Data center : Supporting data center with green energy solutions in alignment with EGCO's net zero target
- LNG : Supplying transitional fuels, reliable, lower-carbon energy on the path to net zero



Increasing of renewable power generation ratio in portfolio



Carbon Credit/IREC

Participation in Carbon Credit/IREC market business (Selling and Trading)



Thai Conservation of Forest Foundation (TCOF)



CARBON NEUTRAL 2040

- Expanding green energy capacity
- Expand alternative fuel (H₂)
- Retrofit CCUS expansion
- Operate hydrogen value chain commercially
- Measure, offset and report



NET ZERO 2050

- Expanding green energy capacity
- Use 100% clean fuel
- Retrofit 100% CCUS
- Expanding Hydrogen value chain

For more information, please visit :
<https://sustainability.egco.com/th/home>



The first phase, **Capacity Building**, continues up until 2030. Key activities in this phase consist of:

- Expand Co-firing Power Plant (H_2 blending) up to 40% by volume.
- Conduct Readiness analysis and feasibility studies on EGCO's assets for CCS retrofitting and METI.
- Purchase carbon credits to prevent an increase in emissions during the first phase.
- Expand the renewable electricity generation portfolio to 30% by 2030.

The second phase, **Carbon Neutral**, details EGCO's key actions in the mid-term between 2030 and 2040. Key activities include:

- Further Expand green energy capacity and renewable energy generation.
- Invest in permanent carbon removal through expanding CCS retrofitting.
- Expend alternative fuel (H_2) and operate hydrogen value chain commercially.
- Achieve carbon neutral status through offsetting where necessary to compensate for residual GHG emissions to reach the annual targets.

The third phase, **Net Zero**, lays out EGCO's priorities by 2050 in the long term to achieve the Net Zero target.

- Green energy capacity and renewable energy generation continuously expanded.
- Invest in permanent carbon removal by expanding CCS retrofitting to 100%
- Utilize 100% clean fuel.
- Expand the hydrogen value chain.

3.3.1 Internal Carbon Price

Objectives to Implement a Carbon Price

EGCO's Internal Carbon Pricing (ICP) is designed to increase awareness across all operations about the potential future costs of carbon. By incorporating these costs into project evaluations, ICP **encourages low-carbon investments, drives energy efficiency** to reduce greenhouse gas (GHG) emissions, and supports the **integration of climate-related considerations into risk assessments**. It enables EGCO to **conduct cost-benefit analysis, incentivize consideration of climate-related issues in decision making, and identify and seize low-carbon opportunities**. ICP **also helps influence strategy and financial planning**, supports efforts to navigate regulations, and encourages action to **reduce upstream value chain emissions** by promoting low-carbon practices across suppliers and partners. Additionally, it provides a framework to set a **carbon offset budget** and **stress test investments** under various carbon pricing scenarios. Altogether, ICP fosters the development of a sustainable energy portfolio, helps reduce upstream value chain emissions, and assists EGCO in **setting and achieving climate-related policies and targets** that align with its environmental sustainability goals.

Type of Internal Carbon Price, Price, and Application

This company's carbon pricing strategy is laid out in two distinct phases and remains at an exploratory stage, with implementation considerations still underway. In Phase 1, starting in 2025, the company plans to apply an internal shadow price of **\$6-\$15/metric tCO_2e** aligned with the IEA scenario for emerging market countries in 2030. This approach does not involve actual financial transactions and is **intended to inform internal decision-making processes**, specifically capital expenditure evaluations for new investments that incorporate high-efficiency, low-emission technologies. Moving into the Next Phase, which is expected to commence in 2030, the ambition for the internal carbon price significantly increases to **\$25-\$55/metric tCO_2e** based on benchmarking study. This phase also envisions a transition from a shadow price to an **internal carbon fee**. This more mature phase will **broaden the application of internal carbon pricing to encompass all business decision-making processes** related to capital expenditure, alongside establishing a dedicated fund for carbon footprint reduction.

GHG Scope Covered

The scope of emissions covered and the geographical boundary of this carbon pricing initiative also expand over time. Phase 1, starting in 2025, is limited to a boundary within Thailand and covers **GHG emission Scope 1 and 2**. By the Next Phase, starting in 2030, the boundary for

the carbon pricing mechanism will become **company-wide, reflecting a broader organizational commitment**. Concurrently, the scope of covered GHG emissions will expand to include **Scope 1, 2, and 3**, indicating a more comprehensive approach to managing the company's carbon footprint.

Figure 6 EGCO's Internal Carbon Pricing

Topic	Topic Phase 1 (starting 2025)	Next Phase (starting 2030)
Carbon price	\$6-15/metric tCO ₂ e	\$25-55/metric tCO ₂ e (High-level ambition)
Type of internal carbon price	Fixed shadow price (no actual money)	Internal carbon fee (actual money)
Boundary	Thailand	Company Wide
Scope	GHG emission Scope 1/2	GHG emission Scope 1/2/3
Application	<ul style="list-style-type: none"> Internal carbon pricing in capital expenditure decisions of some business decision-making processes by applied to new investment that use new technology with high efficiency with low emission. 	<ul style="list-style-type: none"> Internal carbon pricing in capital expenditure decisions of all business decision-making processes. Fund for carbon footprint reduction.

Metrics and Targets

4.1 Climate-Related Metrics

EGCO is committed to supporting a managed transition in line with the Thailand NDC and Paris Agreement and aspires to be a major sustainable Thai energy company committed to environmental protection and social development. With its “Cleaner, Smarter, Stronger” business model, EGCO aims for sustainable growth. Its key target included increasing renewable energy generation in the portfolio to 30% by 2030. EGCO's long-term goal is to achieve net-zero emissions by 2050. By reporting climate-related metrics and targets, EGCO builds trust with stakeholders and demonstrates its dedication to a sustainable future.

EGCO measures GHG emissions in line with the GHG Protocol Corporate Accounting and Reporting Standard⁵, using consistent methodologies, data sources, and assumptions based on operational activity and standard emission factors. This approach consistent with the previous reporting year, ensuring reliable and comparable results over time.

EGCO's Scope 1 and 2 GHG emissions boundary covers EGCO's headquarters and 13 power plants under operational control approach, and relevant Scope 3 emissions covering Category 15 investment in joint ventures. Please refer to the scope 3 emissions breakdown in Annex C.

Table 5 GHG Emissions Data*

Performance	Unit	2021	2022	2023	2024
Scope 1 Direct GHG emissions	Metric tons CO ₂ e	6,088,049	6,150,208	5,715,621	5,535,710
Scope 2 Energy indirect GHG emissions (Location-based)	Metric tons CO ₂ e	9,194	8,150	10,275	10,011
GHG emissions intensity (Scope 1 & 2)	Metric tons CO ₂ e per MWh	0.45	0.46	0.45	0.48

* The GHG emissions from 2021 to end of the year of 2024 include the Boco Rock Wind Farm. However, EGCO will divest Boco Rock Wind Fram in 2025, it is not included in the scope of climate-related risk assessment.

Table 6 Risk and Opportunity Metrics

Opportunity Metrics	Unit	2021	2022	2023	2024
Climate-related Opportunities					
Assets aligned with climate-related opportunities	Asset (s)	9	9	9	8
	% of all assets	64	64	64	61.5
Capital expenditure, financing, or investment deployed towards climate-related opportunities	MTHB	12,491	8,301	11,592	5,918
Energy-related Opportunities					
Total renewable energy generated	Megawatts (MW)	1,050.3	1,077.2	1,435.0	1,133
Share of renewable energy generation compared to total energy generation	%	19	18	20.4	21.6

⁵ Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004)

Risk Metrics	Unit	2021	2022	2023	2024
Climate-related Risks					
Assets vulnerable to climate-related transition risks	Asset (s)	5	5	5	5
	% of all assets	36	36	36	38.4
Assets vulnerable to climate-related physical risks ⁷	Asset (s)	14	14	14	12
	% of all assets	100	100	100	92.3
Capital expenditure, financing, or investment deployed towards climate-related risks	MTHB	N/A	N/A	10	10
Water-Related Risks					
Production plants in water-stressed areas	%	0	0	0	0
Cost of goods sold (COGS) in water-stressed areas	%	0	0	0	0

Table 7 IFRS S2 Sector-Specific Metrics⁶

Topic	Code	Metric	Performance 2024
Greenhouse Gas Emission	IF-EU-110a.1	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	N/A. Thailand does not have emissions limiting regulations
		Gross global Scope 1 emissions, percentage covered under emissions-reporting regulations	N/A. Thailand does not have emissions reporting regulations
	IF-EU-110a.2	Greenhouse gas (GHG) emissions associated with power deliveries ^(a)	11,027,712.74 metric ton CO ₂ e
	IF-EU-140a.1	Total water withdrawn, percentage in regions with High baseline water stress	0 m ³ (0%)
		Total water withdrawn, percentage in regions with Extremely High baseline water stress	0 m ³ (0%)
		Total water consumed; percentage in regions with High baseline water stress	0 m ³ (0%)
		Total water consumed, percentage in regions with Extremely High baseline water stress	0 m ³ (0%)

⁶ Refers to IFRS S2 guidance for the Electricity Utilities & Power Generator sector.

⁷ In 2024, the physical risk assessment covered a total of 19 power plants (including 6 power plants of JVs). Of these, 12 power plants fall within the GHG emission boundary for scope 1 and 2 with total of a13 power plants. Since the study is limited to power plants with a lifespan extending beyond 2025, Boco Rock Power Plant Pty. will not be included in the physical risk assessment.

Topic	Code	Metric	Performance 2024
Water Management	IF-EU-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	0 ^(b) incidents
	IF-EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	Refer to 3.2.2 Physical Scenario Analysis
End-Use Efficiency & Demand	IF-EU-420a.2	Percentage of electric load served by smart grid technology	N/A
	IF-EU-420a.3	Customer electricity savings from efficiency measures, by market	N/A
Nuclear Safety & Emergency Management	IF-EU-540a.1	Total number of nuclear power units, broken down by results of most recent independent safety review	N/A. EGCO does not have nuclear power units
	IF-EU-540a.2	Description of efforts to manage nuclear safety and emergency preparedness	N/A. EGCO does not have nuclear power units
Grid Resiliency	IF-EU-540a.1	Number of incidents of non-compliance with physical or cybersecurity standards or regulations	N/A
	IF-EU-540a.2	System Average Interruption Duration Index (SAIDI)	N/A
		System Average Interruption Frequency Index (SAIFI)	N/A
		Customer Average Interruption Duration Index (CAIDI), inclusive of major event days	N/A

Topic	Code	Metric	Performance 2024
Activity Metric	IF-EU-000.A	Number of: (1) residential, (2) commercial, and (3) industrial customers served	18
	IF-EU-000.B	Total electricity delivered to: (1) residential, (2) commercial, (3) industrial, (4) all other retail customers, and (5) wholesale customers	22,235,758.12 MWh
	IF-EU-000.C	Length of transmission and distribution lines	0 km EGCO does not own any transmission and distribution lines
	IF-EU-000.D	Total electricity generated, percentage by major energy source, percentage in regulated markets	Total electricity generated: 31,266,850 MWh Electricity generated by source: Coal: 4,241,367 MWh (13.57%) Natural gas: 22,597,981 MWh (72.27%) Wind: 772,424 MWh (2.47%) Solar: 107,119 MWh (0.34%) Hydropower: 3,472,879 MWh (11.11%) Fuel cell: 75,080 MWh (0.24%)
	IF-EU-000.E	Total wholesale electricity purchased	0 MWh

Disclosure reference: IFRS-S2-IBG - Issued IFRS Standards

Remarks:

^(a) Emissions associated with power deliveries calculated according to the methodology established in "EPS Metric D-3: Retail Electric Deliveries", contained in the Electric Power Sector Protocol for the Voluntary Reporting Program, June 2009, Version 1.0 provided by The Climate Registry, as recommended in IFRS S2 Appendix B.

^(b) Number of incidents of non-compliance associated with water quality permits, standards and regulations included under the Environmental Violations metric available in EGCO's Environmental Performance Report.

Additional climate-related metrics are available in EGCO's Environmental Performance Report and Performance Dashboard 2024. As EGCO's climate journey progresses, further metrics will be disclosed.

4.2 Climate-Related Targets

EGCO sets climate-related targets that are applicable to organization-wide and covers the seven greenhouse gases identified in the Kyoto Protocol including CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, and NF₃. In 2024, EGCO committed to seek target validation from the Science Based Targets

initiative (SBTi) for near-term and net zero targets covering scope 1, 2, and 3 emissions and is in the process of updating our targets to reflect SBTi requirements. We also plan to validate our targets and target setting methodology with a third-party.

Table 8 Climate-Related Targets

Emissions-Related Targets

• Scope 1 and 2 Targets:

- Reduce 10% Scope 1 and Scope 2 emissions intensity (Metric tons CO₂e per megawatt-hour (MWh)) by 2030 from 2020 baseline
- Achieve carbon neutrality by 2040 and net zero by 2050 for Scope 1 and Scope 2 emissions

• Scope 3 Targets:

- Reduce 50% absolute Scope 3 emissions Category 15 (Investments) by 2050 from the 2021 baseline.

Other Climate-Related Targets

- No new investments in coal-fired power plants
- Increase the portion of renewable energy to 30% of the total generating capacity by 2030
- Increase the utilization of clean fuel to 100% by 2040 and replace with hydrogen fuel and CCUS retrofit by 2050

Remark: Scope 1+2 combined base year emissions (2020) is 6 million metric tons CO₂e. (Target scope and related emissions reduction of scope 1&2 represent 100% of base year emissions)

Scope 3 Category 15 (Investments) base year emissions (2021) is 4,346,771 metric tons CO₂e.

Table 9 GHG Emissions Performance against Targets

Targets	Baseline	Units	Performance Against Targets	
			2023	2024
Reduce Scope 1 and Scope 2 emissions intensity by 10% (Metric tons CO ₂ e per megawatt hour (MWh)) by 2030 from 2020 baseline	0.45	Metric tons CO ₂ e/MWh	0.45	0.48
		% compared to target baseline	Maintain	6.67% increase
Reduce scope 3 emissions by 50% by 2050 from 2021 baseline*	4,346,771	Metric tons CO ₂ e	4,003,777	4,598,753
		% compared to target baseline	8% decrease	6% increase

In addition to our internal targets, EGCO conducts climate lobbying practices with external organizations. We assess our climate lobbying practices against the Global Standard on Responsible Climate Lobbying with the aim of achieving goals in line with Thailand's NDC and the Paris Agreement (Annex B)

* In previous reports, EGCO applied the equity share approach to calculate its GHG emissions. However, starting in 2024, the company transitioned to the operational control approach, resulting in a change to the GHG emissions boundary. For this year, the Scope 3 emissions reported in this table were focused on Category 15 (Investments) only, which is the most significant and the largest contributor or 84% of total scope 3 emissions.

IFRS S2 Content Index

Table 10 IFRS S2 Content Index

IFRS S2 Recommendation	EGCO's Public Disclosure
Governance - Disclose the governance processes, controls, and procedures used to monitor, manage and oversee climate-related risks and opportunities.	
a) Disclose the governance body(s) or individual(s) responsible for oversight of climate-related risks and opportunities.	<ul style="list-style-type: none"> IFRS S2 Disclosure 2025 - Governance (PDF page 6-9) Annual Report 2024 - Corporate Governance and Sustainability Committee (PDF page 120-124) Sustainability Management Structure
b) Disclose management's role in the governance processes, controls, and procedures used to monitor, manage, and oversee climate-related risks and opportunities.	<ul style="list-style-type: none"> IFRS S2 Disclosure 2025 - Governance (PDF page 6-9) Annual Report 2024 - Risk Governance Structure (PDF page 53-54) Sustainability Management Structure
Strategy - Disclose the strategy for managing climate-related risks and opportunities.	
a) Disclose the climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects.	<ul style="list-style-type: none"> IFRS S2 Disclosure 2025 - Scenario Analysis (PDF page 11-26)
b) Disclose the current and anticipated effects of those climate-related risks and opportunities on the entity's business model and value chain.	<ul style="list-style-type: none"> IFRS S2 Disclosure 2025 - Scenario Analysis (PDF page 11-26) Climate Strategy (PDF page 27-31) Annual Report 2024 - Emerging Risks (PDF page 65); Risk from Raw Water Shortage and Fuel Shortage Risk (PDF page 59); Climate Strategy (PDF page 89-94)
c) Disclose the effect of those climate-related risks and opportunities on the entity's strategy and decision-making, including information about its climate-related transition plan.	<ul style="list-style-type: none"> IFRS S2 Disclosure 2025 - Scenario Analysis (PDF page 11-26) Climate Strategy (PDF page 27-31) Annual Report 2024 - Emerging Risks (PDF page 65), Climate Strategy (PDF page 89-94)
d) the effect of those climate-related risks and opportunities on the entity's financial position, financial performance, and cash flows for the reporting period, and their anticipated effects on the entity's financial position, financial performance, and cash flows over the short, medium, and long-term, taking into consideration how those climate-related risks and opportunities have been factored into the entity's financial planning.	<ul style="list-style-type: none"> IFRS S2 Disclosure 2025 - Scenario Analysis (PDF page 11-26) Climate Strategy (PDF page 37-31)

IFRS S2 Recommendation	EGCO's Public Disclosure
<p>e) Disclose the climate resilience of the entity's strategy and business model to climate-related changes, developments, uncertainties, taking into consideration the entity's identified climate-related risks and opportunities.</p>	<ul style="list-style-type: none"> IFRS S2 Disclosure 2025 - Scenario Analysis (PDF page 11-26) Climate Strategy (PDF page 37-31)
<p>Risk Management - Disclose the processes to identify, assess, prioritize, and monitor climate-related risks and opportunities, including whether and how those processes are integrated into and inform the overall risk management process.</p>	
<p>a) Disclose the processes and related policies the entity uses to identify, assess, and prioritise, and monitor climate-related risks.</p>	<ul style="list-style-type: none"> IFRS S2 Disclosure 2025 - Climate-related Risks and Opportunities Management (PDF page 10-11)
<p>b) Disclose the processes the entity uses to identify, assess, prioritize 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.</p>	<ul style="list-style-type: none"> IFRS S2 Disclosure 2025 - Climate-related Risks and Opportunities Management (PDF page 10-11)
<p>c) Disclose the extent to which, and how, the processes for identifying, assessing, prioritizing and monitoring climate-related risks and opportunities are integrated into and inform the entity's overall risk management process.</p>	<ul style="list-style-type: none"> Annual Report 2024 - Risk Governance Structure (PDF page 53-54); Risk Management Philosophy and Policy (PDF page 54); Assessing Corporate Key Risks, Emerging Risks and Risks Mitigation (PDF page 56-64)
<p>Metrics & Targets - Disclose performance in relation to climate-related risks and opportunities, including progress towards any climate-related targets and targets required to be met by law or regulation.</p>	
<p>a) Disclose the information relevant to the cross-industry metric categories, including greenhouse gases, transition risks, physical risks, opportunities, capital deployment, internal carbon price, and remuneration.</p>	<ul style="list-style-type: none"> IFRS S2 Disclosure 2024 - Climate-Related Metrics (PDF page 32-35) Performance Data 2020-2023 and Performance Dashboard 2024, - Environment
<p>b) Disclose industry-based metrics that are associated with particular business models, activities or other common features that characterize participation in an industry.</p>	
<p>c) Disclose the targets set by the entity, and any targets it is required to meet by law or regulation, to mitigate or adapt to climate-related risks or take advantage of climate-related opportunities, including metrics used by the governance body or management to measure progress towards these targets.</p>	<ul style="list-style-type: none"> IFRS S2 Disclosure 2024 - Climate-Related Targets (PDF page 36-37) Annual Report 2024 - Business Targets (PDF page 20); Climate Strategy (PDF page 89-94)

Annex A: Financial Impact Quantification of Climate-Related Risks and Opportunities

Risks Driven by Regulations

Climate change is one of the most significant global challenges. Due to the nature of our business, climate change can impact EGCO Group's operation in many dimensions. For transition risk regarding policy, regulation, and technological changes, a carbon tax can affect the Company's strategy and investment directions.

In order to respond to climate change, EGCO prepared this enforcement through the EGCO Group 2030 Climate Strategy. The strategy covers 3 main aspects, namely resilient portfolio (increase investment in renewable energy business), innovative business (supporting low-carbon ventures and clean energy innovations), and enabling programs (focusing on internal operations, certifications, and memberships).

This analysis utilizes EGCO's historical and projected greenhouse gas emissions data, based on the company's business plan, together with projected carbon prices from the WEO 2024. These elements represent potential additional costs that may affect the company's financial performance. To provide a clearer understanding of the financial impact, the future carbon price, treated as an additional cost, is expressed in proportion to the revenue generated from EGCO's fossil fuel-based power generation business.

The strategy focuses on (a) No new investment in coal-fired power plants and increasing renewable energy, (b) exploring hydrogen opportunities and developing new ventures, and (c) expanding investments and fostering innovation for funding prospects.

Risks Driven by Change in Physical Climate Parameters

Physical climate risks, particularly those related to water availability and flooding, pose significant threats to EGCO Group's business continuity. To manage these risks, EGCO has implemented comprehensive control measures. These include securing all-risk insurance coverage to protect against potential losses from unexpected events, assessing water-related risks using the World Resources Institute's Aqueduct Water Risk Atlas, and conducting water stress scenario analyses through ISIMIP. Based on these assessments, EGCO develops tailored mitigation plans appropriate to the specific conditions of each power plant.

Opportunities Arising from Climate Change

To strengthen market opportunities and diversify investments in line with long-term energy needs, EGCO Group has identified the growth of renewable energy as a key opportunity arising from climate change. By expanding renewable energy production to meet projected demand under a business-as-usual scenario, the Company has the potential to increase revenue by 14-38% under the STEPS scenario and 32-47% under the APS scenario, compared to the original business plan.

Annex B: Global Standard on Responsible Climate Lobbying

EGCO, as a leading company in Thailand, recognize the significance of shaping climate-related policies and regulations to align with our business interests. To ensure our climate lobbying efforts are conducted responsibly and in line with global best practices, EGCO has established

a set of framework indicators. These indicators serve as a guide for our lobbying activities and demonstrate our dedication to engaging transparently and ethically in discussions surrounding climate policies.

No.	Framework Indicator	EGCO Actions	Reference
1	Make a public commitment to align all of its climate change lobbying with the goal of restricting global temperature rise to 1.5°C above pre-industrial levels.	<p>EGCO is committed to support a managed transition in line with the Thailand NDC and Paris Agreement.</p> <p>EGCO is also committed to become Net Zero by 2050 with the goal of restricting global temperature rise to 1.5°C above pre-industrial levels.</p>	IFRS S2 - Metrics and Targets
2	Apply the scope of this commitment to all of its subsidiaries and business areas, and all operational jurisdictions.	<p>Climate Strategy Framework and other ESG-related policies are applied for all types of power businesses conducted by EGCO.</p> <p>Reporting of EGCO's net zero positioning covers all subsidiaries and jurisdictions where EGCO has operations.</p>	
3	Publicly commit to taking steps to ensure that the associations, alliances and coalitions of which it is a member conduct their climate change lobbying in line with the goal of restricting global temperature rise to 1.5°C above pre-industrial levels.	<p>Statement of our position on public policies relating to climate change, which is aligned with the Paris Agreement.</p> <p>EGCO is an active member of various groups and has made public commitments to adhere to the policies and roadmaps established by these groups and the government. These commitments are aligned with Thailand's NDC and the Paris Agreement.</p>	IFRS S2 - Metrics and Targets

No.	Framework Indicator	EGCO Actions	Reference
4	Assign responsibility at Board level for oversight of its climate change lobbying approach and activities.	<p>Governance framework for public policy engagement with clear accountabilities up to executive level.</p> <p>The Board is responsible for approving climate strategy including climate lobbying policies, overseeing progress, and appointing the Corporate Governance and Sustainability Committee which is responsible for environmental stewardship and addressing climate change.</p>	IFRS S2 - Governance
5	Assign responsibility at senior management level for day-to-day implementation of its climate change lobbying policies and practices.	<p>Governance framework for public policy engagement with clear accountabilities up to executive level.</p> <p>At the senior level, individuals are assigned the responsibility of developing and implementing effective strategies, coordinating with relevant stakeholders, and ensuring that the organization's lobbying activities are aligned with its climate goals. In line with this, EGCO has designated four senior management personnel, Dr.Worapong Sinsukthavorn, Mr. Sirichai Wangsingsoo, Mr. Adisorn Tanmee, and Mr. Nakul Rakpanya, to serve as Directors. Mr. Nakul Rakpanya concurrently serves as Registrar of the Electricity Supply Industry Association of Thailand (TESIA).</p>	IFRS S2 - Governance
6	Establish an annual monitoring and review process to ensure that all of its direct and indirect climate change lobbying activities across all geographies are consistent with the goal of restricting global temperature rise to 1.5°C above pre-industrial levels.	<p>Reviewing and monitoring process to assess whether public policy engagements and lobbying are aligned with the Paris Agreement for both direct lobbying activities and trade associations.</p> <p>EGCO has established procedures to evaluate, supervise, and determine the compatibility of its public policy engagements and lobbying efforts with the objectives of the Paris Agreement. The climate change lobbying activity is reviewed by the Board in the Board review and monitoring process before the decision. This evaluation encompasses both our direct lobbying activities and those conducted through our trade associations. However, currently, our financial contributions are restricted to trade associations only.</p>	<p>https://sustainability.egco.com/en/reporting-center/performance-data</p> <p>IFRS S2 - Risk Management and Climate Strategy (3.3 Climate Strategy)</p>

No.	Framework Indicator	EGCO Actions	Reference
7	Establish a process for engaging with stakeholders related to setting and reviewing its climate change lobbying policies, positions and activities.	EGCO and stakeholders participated in focus group meetings under the Carbon Capture Utilization and Storage Technology Roadmap (CCUS TRM), which is a climate lobbying activity to serve Thailand's commitment to UN COP26 which is Carbon Neutral by 2050 and Net Zero Greenhouse Gas Emissions by 2065, to collect and analyze important data as well as convene brainstorming sessions with relevant stakeholders to gather useful information for the roadmap.	https://www.youtube.com/watch?v=HZVrWPmHkQU IFRS S2 - Risk Management and Climate Strategy
8	Establish a clear framework for addressing misalignments between the climate change lobbying positions adopted by the associations, alliances and coalitions of which it is a member and the goal of restricting global temperature rise to 1.5°C above pre-industrial levels.	<p>Clear framework for addressing misalignments between climate change policy positions of trade associations and our own climate position.</p> <p>EGCO actively participates in association gatherings to encourage dialogues and guarantee that the actions taken by the organization are consistent with Thailand's NDC and the Paris Agreement. As part of this commitment, EGCO has implemented a transparent framework to address any inconsistencies that may arise between the climate change policy positions of trade associations and our stance on climate issues.</p>	IFRS S2 - Risk Management and Climate Strategy
9	Publish a detailed annual review covering the company's assessment and actions related to the 1.5°C-alignment of: (a) its own climate change lobbying activities; (b) the climate change lobbying activities of the associations, alliances, coalitions or thinktanks of which it is a member or to which it provides support.	As a member of various climate change lobbying organizations, EGCO regularly monitors and reviews the Thailand NDC and Paris Agreement. They collaborate with government entities to develop a roadmap for addressing climate change effectively.	https://www.youtube.com/watch?v=HZVrWPmHkQU
10	Recognise the existence of and report on action to address any misalignments between its climate change lobbying and/or the climate change lobbying activities of its trade associations, coalitions, alliances or funded thinktanks and the goal of limiting global temperature rise to 1.5°C above pre-industrial levels.	Given EGCO's extensive membership in various organizations and alliances, the company leverages the commitments established within these groups to review, compare, and assess its activities for any potential misalignments. If any misalignments are identified, EGCO initiates further discussions within the respective group to address and resolve the discrepancies to ensure a cohesive approach toward their climate change lobbying efforts.	IFRS S2 - Risk Management and Climate Strategy

No.	Framework Indicator	EGCO Actions	Reference				
11	Create or participate in coalitions that have the specific purpose of lobbying in support of the goal of restricting global temperature rise to 1.5°C above pre-industrial levels.	EGCO has participated in several meetings to discuss environmental policies and the changing global climate in collaboration with the government, with the aim of developing a project that will lead Thailand towards carbon neutrality and net zero. This initiative is also in line with the commitments declared at the UN Climate Change Conference of the Parties, specifically COP26.	IFRS S2 - Risk Management and Climate Strategy				
12	Publicly disclose, for all geographies, its membership of, support for and involvement in all associations, alliances and coalitions engaged in climate change-related lobbying.	<p>EGCO has disclosed its membership and all relevant associations engaged in lobbying activities about climate change on its official website as follows:</p> <p>Climate policy positions and activities of trade associations:</p> <table border="1"> <thead> <tr> <th>Trade Association</th> <th>Climate Policy Position and Activities</th> </tr> </thead> <tbody> <tr> <td>Thailand Business Council for Sustainable Development (TBCSD)</td> <td> <p>The Thailand Business Council for Sustainable Development (TBCSD) and the Thailand Environment Institute (TEI) promote sustainable business practices through initiatives such as green meetings, low-carbon models, climate forums, and public awareness campaigns. They work with government and private sectors to support Thailand's transition to a low-carbon economy.</p> <p>EGCO Group, led by President Dr. Jiraporn Sirikum, actively supports TBCSD's mission. At the "CEO Forum: Climate Action Leading Towards Net Zero" during the Thailand Research Expo 2024, Dr. Jiraporn Sirikum outlined EGCO's key sustainability strategies, including clear net-zero policies, regulatory improvements, and innovation. EGCO aims to reach 30% renewable energy by 2030, carbon neutrality by 2040, and 100% clean energy by 2050, supported by projects like the hydrogen-powered Linden Cogen Unit 6 and investment in APEX Clean Energy. The company also emphasizes environmental conservation near its operations. These efforts reflect EGCO's commitment to advancing a low-carbon economy in line with TBCSD goals.</p> </td> </tr> </tbody> </table>	Trade Association	Climate Policy Position and Activities	Thailand Business Council for Sustainable Development (TBCSD)	<p>The Thailand Business Council for Sustainable Development (TBCSD) and the Thailand Environment Institute (TEI) promote sustainable business practices through initiatives such as green meetings, low-carbon models, climate forums, and public awareness campaigns. They work with government and private sectors to support Thailand's transition to a low-carbon economy.</p> <p>EGCO Group, led by President Dr. Jiraporn Sirikum, actively supports TBCSD's mission. At the "CEO Forum: Climate Action Leading Towards Net Zero" during the Thailand Research Expo 2024, Dr. Jiraporn Sirikum outlined EGCO's key sustainability strategies, including clear net-zero policies, regulatory improvements, and innovation. EGCO aims to reach 30% renewable energy by 2030, carbon neutrality by 2040, and 100% clean energy by 2050, supported by projects like the hydrogen-powered Linden Cogen Unit 6 and investment in APEX Clean Energy. The company also emphasizes environmental conservation near its operations. These efforts reflect EGCO's commitment to advancing a low-carbon economy in line with TBCSD goals.</p>	https://sustainability.egco.com/en/reporting-center/performance-data
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		<p>Climate-related direct lobbying activities:</p> <p>None</p>							

No.	Framework Indicator	EGCO Actions	Reference								
13	Publicly disclose, for each of these organisations: (a) how much it pays to them on an annual basis; (b) those organisations where it sits on the board or plays an active role in committees or other activities related to climate change.	<p>Contributions to each Organization</p> <table border="1"> <thead> <tr> <th>Trade Association</th> <th>Contributions 2024 (THB)</th> </tr> </thead> <tbody> <tr> <td>Thailand Business Council for Sustainable Development</td> <td>No monetary contributions</td> </tr> <tr> <td>International Council on Large Electric System</td> <td>25,013</td> </tr> <tr> <td>United Nations Global Compact</td> <td>525,000</td> </tr> </tbody> </table>	Trade Association	Contributions 2024 (THB)	Thailand Business Council for Sustainable Development	No monetary contributions	International Council on Large Electric System	25,013	United Nations Global Compact	525,000	https://sustainability.egco.com/en/reporting-center/performance-data
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14	Publicly disclose its overall assessment of the influence that its climate lobbying has had on (a) supporting ambitious public climate change policy; (b) the company's ability to deliver its own corporate transition strategy.	EGCO, through its membership in various organizations promoting climate lobbying, ensures a clear roadmap towards achieving carbon neutrality. This objective is reinforced by the company's own policy and the implementation of projects within the organization, such as the utilization of Carbon Capture, Utilization, and Storage (CCUS). These initiatives align with Thailand's commitment to the UN COP26 target of becoming Carbon Neutral by 2050 and Net Zero by 2065. Active participation in such endeavors empowers the company to develop climate-related policies that align with its long-term objectives, enhancing preparedness, optimizing investments, and ultimately attaining carbon neutrality.									

Annex C: Scope 3 GHG Emissions 2024

Performance	Emissions (Metric tons CO ₂ e)	Methodology
Other indirect (scope 3) GHG emissions	5,481,992	<p>The analysis was conducted within the scope of the headquarters and encompassed 13 power plants under EGCO's control.</p> <p>The calculation methodology and standards utilized included the Greenhouse Gas Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard, ISO14064-1:2018 Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals, and the IPCC Guidelines for National Greenhouse Gas Inventories, 2006.</p>
Category 1 Purchased Goods and Services	6,295	<p>The data includes only the top 5 goods and services purchased from the total spending items listed in the year 2024.</p> <p>The method employed in this calculation is the spend-based approach, utilizing the spend value of each item. These goods and services are classified based on the United States Environmentally Extended Input-Output model (USEEIO). Their associated emission factors are used by multiplying the spend value of each item by its respective emission factor.</p>
Category 2 Capital Goods	421	<p>In this category, EGCO considers the top spending goods that depreciate and have a minimum spending requirement of 5,000,000 THB.</p> <p>The methodology used for calculation is similar to category 1, purchased goods and services. EGCO employs a spend-based approach, where the emission factor is multiplied by the respective classified item. It's important to note that the spending value in this category is significantly higher compared to the items listed in Category 1. Consequently, this leads to higher emissions being emitted.</p>
Category 3 Fuel and Energy-Related Activities	874,684	<p>Emissions are calculated specifically focusing on the well-to-tank aspect, which covers emissions generated during the extraction, production, refining, and transportation of the fuel before it reaches EGCO's operations.</p> <p>The calculation methodology employed is the Average Data Method, considering fuel-and-energy-related items like natural gas, diesel oil, husk, and electricity. To ensure accuracy, well-to-tank emission factors from the Department for Environment, Food and Rural Affairs in the United Kingdom (DEFRA) are used in the calculation.</p>
Category 4 Upstream Transportation	N/A	<p>The methodology used in this category is a distance-based approach, considering both well-to-tank and tank-to-wheel emissions for products purchased in 2024.</p> <p>The distance is determined from EGCO's tier 1 suppliers to the company of powerplants listed in the scope of calculation, and transportation modes are classified as per DEFRA categories. The emissions associated with transportation are calculated by converting the distance into fuel consumption using the Net Calorific Value (NCV) obtained from the Department of Alternative Energy Development and Efficiency (DEDE) and multiplying them by the relevant emission factors.</p>

Performance	Emissions (Metric tons CO ₂ e)	Methodology
Category 5 Waste Generated	490	Emissions are solely accounted for waste, as EGCO does not send any wastewater to third parties for treatment. Consequently, there are no Scope 3 emissions associated with wastewater. For the calculation of waste emissions, the Average Data Method is employed. The total annual weight of waste generated from power plants and EGCO headquarters is collected and classified based on the treatment methods listed in DEFRA. For waste that undergoes multiple treatment methods, the method with the highest ratio, landfilling, is used to determine emissions.
Category 6 Business Travel	281	This calculation considers emissions solely from employee transportation for business activities, excluding hotel stays. The methodology used is a spend-based approach, converting expenditure into emissions using the IPCC volume 2 (2006) emission factor and United States Environmentally Extended Input-Output model (USEEIO v2.0).
Category 7 Employee Commuting	1,069	The methodology employed for this calculation is a distance-based approach. It involves converting distances gathered through a commuting survey into emissions using emission factors sourced from the Department for Environment, Food and Rural Affairs (DEFRA).
Category 8 Upstream Leased Assets	N/A	The methodology employed for this category is the Average Data Method. The emissions in this category are estimated by considering the area utilized by EGCO's power plants and converting it into electricity consumption based on the IEA Emission Factors.
Category 9 Downstream Transportation	N/A	Excluded. EGCO already included electricity-related emissions under Scope 1.
Category 10 Processing of Sold Products	N/A	Excluded. EGCO does not have any intermediate products.
Category 11 Use of Sold Products	N/A	Excluded. EGCO includes the energy used by the end-user in category 3 - fuel- and energy-related activities.
Category 12 End-of-Life Treatment	N/A	Excluded. The product (i.e. electricity) does not need any end-of-life treatment.
Category 13 Downstream Leased Assets	N/A	In this category, the methodology employed is the Average Data Method. The emissions generated from the leasing assets of EGCO are estimated by considering the total area of the leasing assets and converting it into electricity consumption using the IEA Emission Factors for the year 2024.
Category 14 Franchises	N/A	Excluded. EGCO does not have any franchises.
Category 15 Investments	4,598,753	EGCO is in the process of calculating Category 15 emissions.

Annex D: Transition Scenario Analysis

Driver Screening

To ensure that the transition scenario analysis is reflective of EGCO's businesses, EGCO conducted a screening process of all transition drivers identified as relevant to EGCO. In line with TCFD recommendations, the drivers identified cover policy and legal, technology, market, and reputational risks.

Transition Drivers	TCFD Category	S&P CSA Category	Business Implication
Transition Risk			
Carbon pricing	Policy & Legal	Current Regulation Risk (Legal Risk)	<ul style="list-style-type: none"> Carbon pricing raises operational costs for fossil fuel-based power plants, affecting profitability and competitiveness.
Regulatory changes	Policy & Legal	Emerging Regulation Risk (Legal Risk)	<ul style="list-style-type: none"> Regulation changes needs can create operational, financial, and regulatory burdens for power plants, requiring investment in compliance, data management, and resources.
Development of new and more efficient technologies	Technology	Technology Risk	<ul style="list-style-type: none"> Investing in efficient technologies can reduce costs, improve compliance, and boost competitiveness.
Changing customer behavior towards Net-Zero	Market	Market Risk	<ul style="list-style-type: none"> Changing customer behavior towards net-zero can impact EGCO, including demand volatility, regulatory changes, asset devaluation, business model disruption, increased competition, and Value chain uncertainties.
Stigmatization of the industry	Reputational	Reputational Risk	<ul style="list-style-type: none"> As sustainability concerns grow, power companies may face public backlash, resulting in decreased customer loyalty, investor pullback, and regulatory pressure.
Transition Opportunity			
Renewable generation	Market	Market Risk	<ul style="list-style-type: none"> By adopting advanced technologies and combining different renewable sources like solar, wind, and storage, plants can increase efficiency, reduce costs, and enhance energy reliability.





Electricity Generating Public Company Limited

222 EGCO Tower, 14th, 15th Fl., Vibhavadi Rangsit Road,
Tungsonghong, Laksi, Bangkok 10210

Tel: 0 2998 5000

Website: www.egco.com

IFRS Disclosure 2025

