



Prepared in accordance with the recommendation of the Task force on Climate-Related Financial Disclosures (TCFD), with reference to IFRS S2 Climate-Related Disclosures

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Introduction

Company Overview

BCPG Public Company Limited (BCPG) is an energy company with a diversified portfolio across renewable power, natural gas power, energy infrastructure and smart energy solutions located in Thailand, Taiwan, Lao PDR, Vietnam and the United States.

Our Business



Our Power Generation Portfolio

1,961.2 MW

Contracted Capacity

1,475.8 MW

Operating

250.4 MW

Developing

235.0 MW

Pipeline

Operating Capacity

Solar Power
206.0 MW



Wind Power
298.5 MW



Hydro Power
114.0 MW



Natural Gas
857.3 MW



Oil Terminal Capacity

716.5 ML.

District Cooling System Capacity

3,000 RT. Cooling load

Climate-related Disclosure Framework (TCFD & IFRS S2)

BCPG prepares its climate-related disclosures with reference to IFRS S2 Climate-related Disclosures, building upon the TCFD framework. The Company discloses governance, strategy, risk management, and metrics and targets related to climate-related risks and opportunities, including climate resilience, GHG emissions, and progress toward Carbon Neutrality and Net Zero commitments.



Governance

Governance processes, controls, and procedures used to monitor, manage, and oversee climate-related risks and opportunities.

Strategy

The effects of climate-related risks and opportunities on BCPG's business model, strategy, financial planning, and resilience under different climate scenarios.

Risk Management

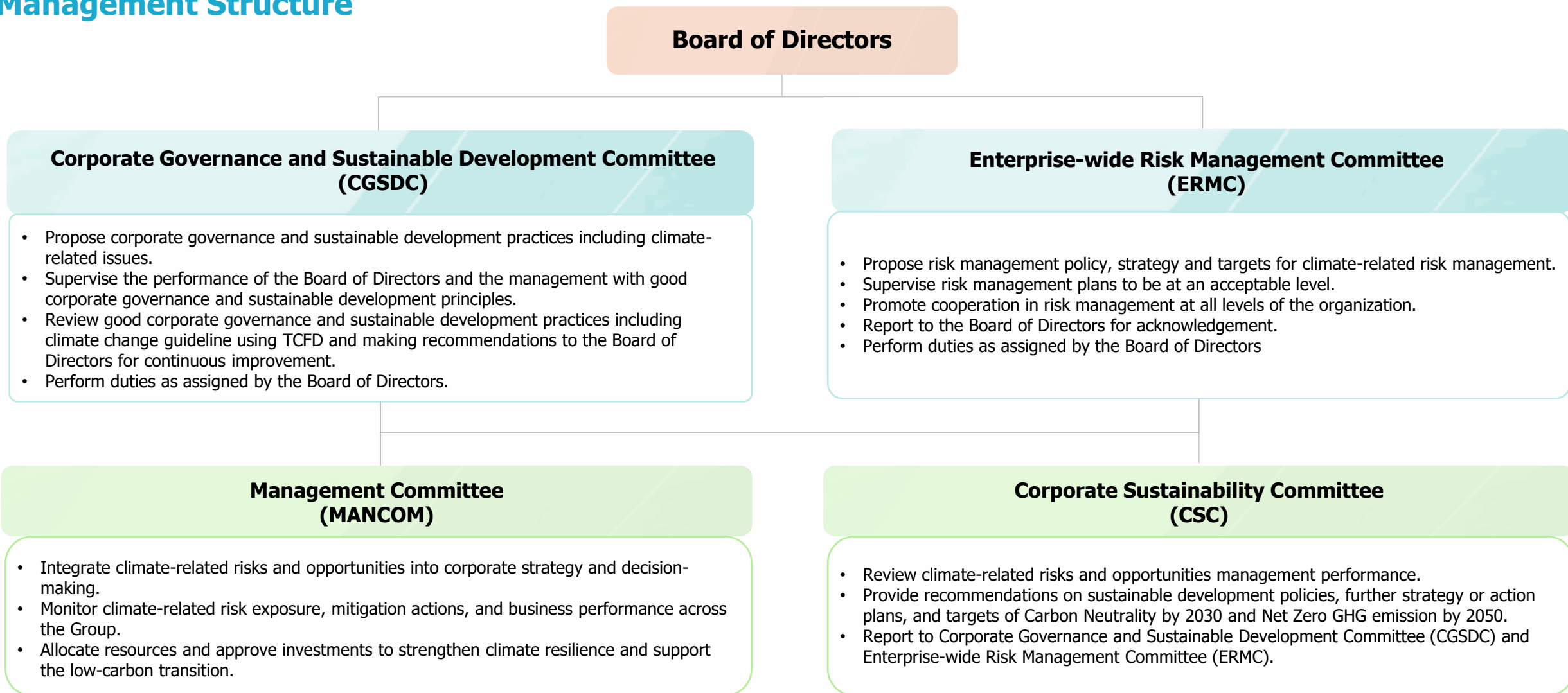
Processes used to identify, assess, prioritize, monitor, and manage climate-related risks and opportunities, and their integration into the enterprise risk management framework.

Metrics and Targets

Metrics, targets, and performance indicators used to monitor climate-related risks and opportunities, including GHG emissions, progress toward Carbon Neutrality and Net Zero targets.

Governance

Management Structure



Integration with Risk Management Processes and Policies

BCPG integrates climate-related risks and opportunities into its Enterprise Risk Management (ERM) framework. Climate-related risks are identified, assessed, prioritized, and monitored through the Company's established risk management processes, with oversight by the Enterprise Risk Management Committee (ERMC), management committees, and the Board of Directors. The outcomes of climate risk assessments are incorporated into strategic planning, investment decisions, business continuity planning, and capital allocation to strengthen the Company's long-term resilience.



Strategy

Scope of Assessment:

With reference to TCFD recommendations, we conduct scenario analysis of the following assets to anticipate the impact of climate change on our business. This was made possible thanks to the collaboration among different business units e.g., Operation, Finance and Asset Management.



**Solar & Wind Power
(21 Sites)**



**Hydro Power
(2 Sites)**



**Oil Terminals and Storage
(1 Site)**



**Natural Gas Power
(4 Sites)**



**GHG Reduction
5% by 2028***

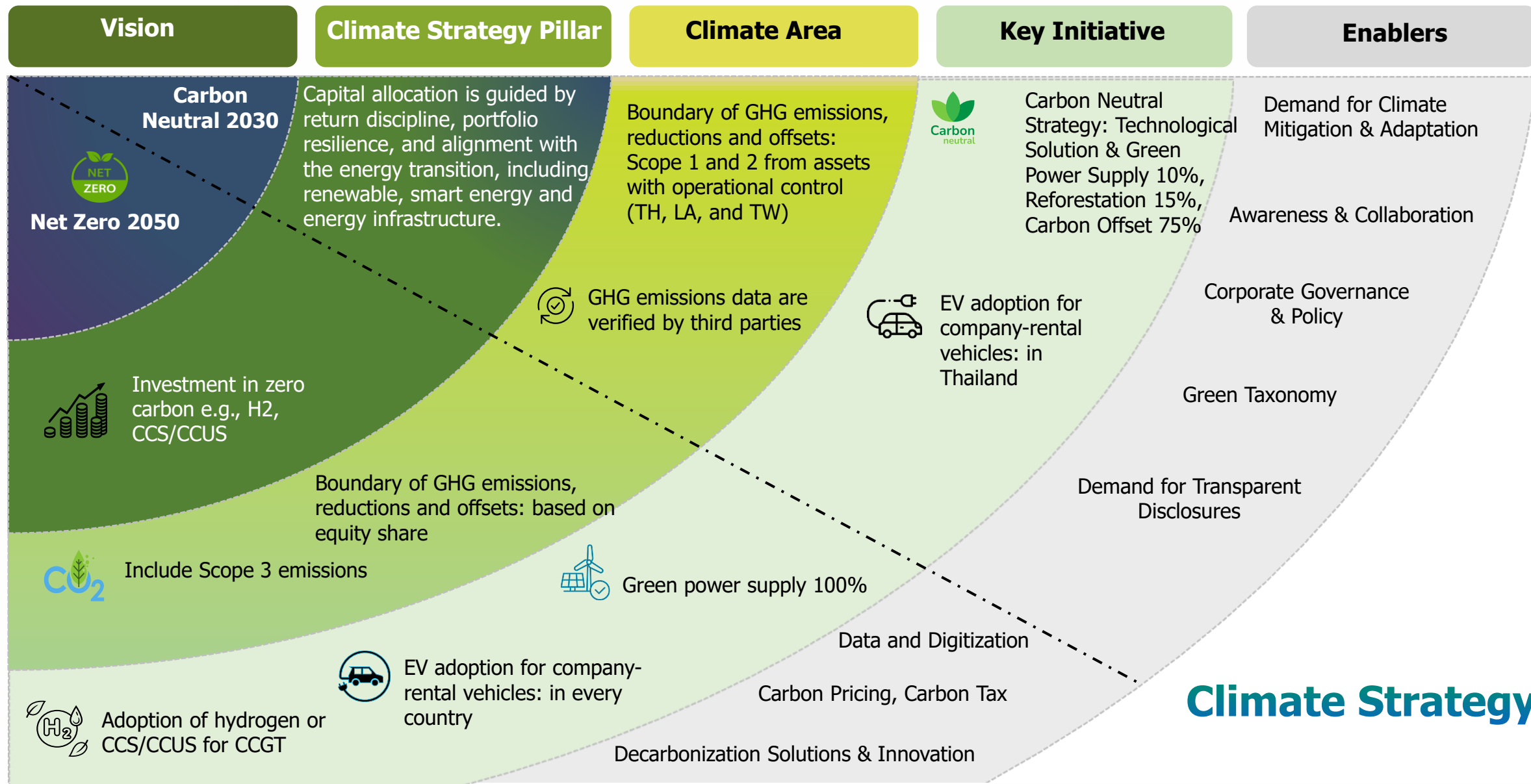


**Carbon
neutral
Carbon Neutral
by 2030**



**Net Zero
by 2050**

*2024 = new base year



Climate Strategy

Management Approach

BCPG integrates sustainability, climate considerations, innovation, and risk management into its business strategy to support long-term growth and resilience. The Company's management approach includes the following key areas:

Strategic Integration of Energy Transition and Sustainability

- Integrate clean energy development, digital innovation, and sustainability considerations into corporate strategy under the concept of **"Driving the Energy Transition through Sustainable Innovation."**
- Incorporate climate change trends, energy transition risks, regulatory developments, technology advancement, and stakeholder expectations into strategic planning and business decision-making.
- Enhance business resilience by developing growth opportunities aligned with the transition toward a low-carbon economy.

Renewable Energy Expansion and Business Diversification

- Expand renewable energy generation capacity through diversified clean energy technologies, including **solar PV, wind power, and distributed generation systems.**
- Diversify investments across different markets, countries, and technologies to reduce exposure to energy policy changes, geopolitical uncertainties, and market volatility.
- Strengthen long-term revenue stability while supporting greenhouse gas emission reduction and energy security.

Development of Distributed Generation (DG) Solutions

- Develop decentralized energy solutions that enable electricity generation closer to consumption areas.
- Provide renewable energy solutions through various business models, including **Power Purchase Agreements (PPA)** and energy services for commercial, industrial, and public sector customers.
- Improve energy reliability, reduce transmission losses, and increase access to clean energy for customers and communities.

Enhancement of Energy Efficiency and Low-Carbon Solutions

- Develop **Energy-as-a-Service** solutions to support customers in improving energy efficiency and reducing carbon footprints throughout the value chain.
- Implement energy optimization solutions, including building energy efficiency improvement, energy-saving equipment, and intelligent energy management systems.
- Develop the **District Cooling System (DCS)** by integrating Thermal Energy Storage (TES) and Energy Management System (EMS) technologies to improve energy efficiency and reduce greenhouse gas emissions.

Management Approach

BCPG integrates sustainability, climate considerations, innovation, and risk management into its business strategy to support long-term growth and resilience. The Company's management approach includes the following key areas:

Digital Transformation and Intelligent Energy Management

- Utilize digital technologies, including **Energy Management Systems (EMS), Internet of Things (IoT), Data Analytics, and Artificial Intelligence (AI)** to enhance energy monitoring and optimization.
- Develop digital energy platforms to enable real-time energy management, improve operational efficiency, and support emission reduction.
- Promote innovative energy solutions, including **Peer-to-Peer Energy Trading, Blockchain, and Smart Contract** applications to accelerate clean energy adoption.

Energy Storage and Future Energy System Development

- Explore and develop **Energy Storage System (ESS)** solutions to support renewable energy integration and enhance energy system flexibility.
- Prepare for increasing energy demand from emerging industries, including digital infrastructure and data centers.
- Strengthen readiness for future energy ecosystems through smart grid integration and advanced energy technologies.

Climate Risk and Enterprise Risk Management Integration

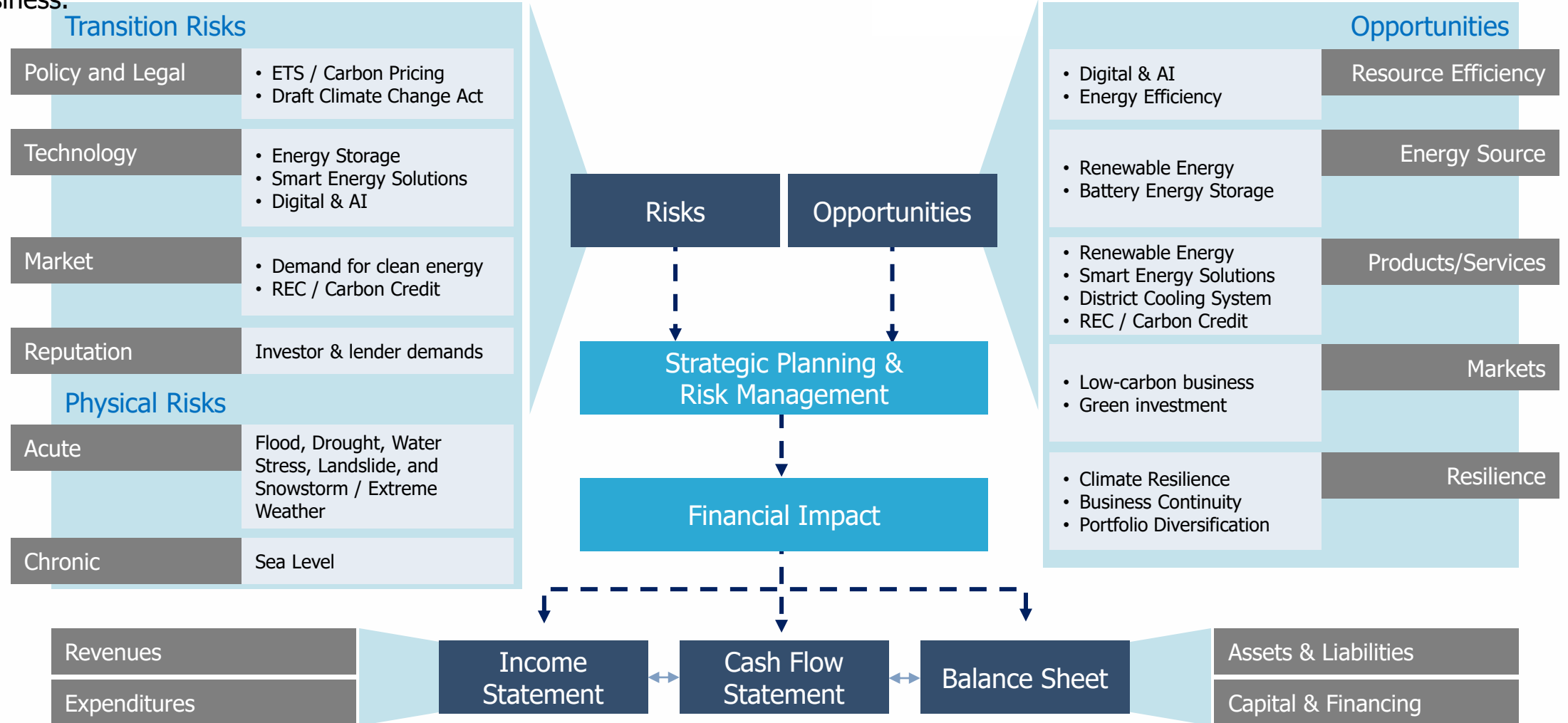
- Integrate climate-related risks and opportunities into the Company's **Enterprise Risk Management (ERM) framework**.
- Assess potential impacts from climate change, energy transition, technology disruption, regulatory changes, and market dynamics.
- Incorporate risk assessment results into strategic planning, investment decisions, and business development processes to enhance organizational resilience.

Innovation Governance and Partnership Development

- Establish governance processes to evaluate technology trends, assess business opportunities, and prioritize investments in innovative solutions.
- Collaborate with domestic and international partners to accelerate technology development and commercialization.
- Promote innovation that creates long-term value for stakeholders while supporting sustainable energy transition.

Climate-Related Risks, Opportunities, and Financial Impact

BCPG systematically assesses **climate-related risks and opportunities** through its ERM framework to support strategic decision-making, enhance business resilience, and capture growth opportunities in renewable energy while managing potential **financial impacts** across the business.



Transition Risks Assessment Process

BCPG assesses transition risks by monitoring climate-related policy, legal, technology, market, and reputation developments. The identified risks are evaluated for their potential business and financial impacts and integrated into the Company's Enterprise Risk Management (ERM) framework to support strategic planning and investment decisions.

Transition Risks Assessment Process

1. Identify Drivers

Identify the key transition drivers—including climate policies and regulations, carbon pricing and ETS, technology, market trends, and stakeholder expectations—and assess their potential impacts on the Company's business, strategy, and operations.

2. Assess Transition Risks

Evaluate policy, legal, technology, market, and reputation risks.

3. Evaluate Business & Financial Impacts

Assess impacts on operations, investments, revenue, costs, and asset values.

4. Integrate into ERM & Strategic Planning

Incorporate assessment results into ERM, strategic planning, capital allocation, and investment decisions.

5. Monitor & Review

Monitor regulatory developments, market changes, and emerging transition risks.

Transition Scenario Analysis

BCPG assesses transition risks and opportunities across short-, medium- and long-term horizons based on its business planning cycle, climate targets and portfolio resilience objectives. BCPG applies the **International Energy Agency (IEA) Stated Policies Scenario (STEPS)** and **Net Zero Emissions by 2050 (NZE) Scenario** to evaluate the resilience of its business strategy under different energy transition pathways. Carbon price assumptions are used as scenario analysis inputs to assess potential financial exposure from carbon pricing, emissions regulation and transition-related market changes. These assumptions are not forecasts of actual carbon tax rates, but are used to support budgeting sensitivity, investment screening and portfolio resilience review.

Horizon	Period	Link to Business Planning
Short term	2026-2027	Annual budget, KPI, near-term risk response
Medium term	2028-2030	Corporate Strategy 2027–2031 and Carbon Neutral 2030
Long term	Beyond 2030	Net Zero 2050 and long-life asset resilience

Carbon Price Assumption (USD/tCO ₂ e)	2026-2027	2028-2030	2040	2050
Thailand official carbon tax	5.5-6.5	TBD	TBD	TBD
IEA NZE – advanced economies	75	130	205	250
IEA NZE – emerging markets with net zero pledges	N/A	90	N/A	200

Transition Scenario Analysis

Internal Carbon Price (ICP)

BCPG adopts the Internal Carbon Price (ICP) approach in the form of a Shadow Carbon Price, aligned with Bangchak Group's climate strategy, to support climate-related risk management and investment decision-making. The Shadow Carbon Price is applied as an analytical assumption in the investment evaluation process to estimate potential-related costs under future carbon pricing mechanisms, such as carbon taxes and emissions trading systems (ETS).

As a diversified energy company, BCPG utilizes the Group's carbon pricing assumptions to support climate-related risk assessment and scenario analysis, to evaluate new investments and strategic projects under future carbon-constrained environments, to enhance capital allocation decisions toward low-carbon and clean energy solutions and to align business growth with the Group's Net Zero and energy transition objectives.

Internal Carbon Price (BCP Group)				
USD/tCO ₂ e	2026-2027	2028-2030	2040	2050
Existing Business	5	25	85	180
Conserving Nature and Society	15	35	95	190

Physical Scenario Analysis

“BCPG used ThinkHazard to identify baseline physical hazards for Thailand and Lao PDR assets, supported by World Bank CCKP and WRI Aqueduct for climate projections and water stress indicators.”

ThinkHazard!

Hazard Level

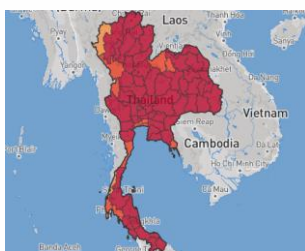
High	Medium
Low	Very low



Thailand

Cover Solar Power, Wind Power and Energy Infrastructure (Oil Terminal)

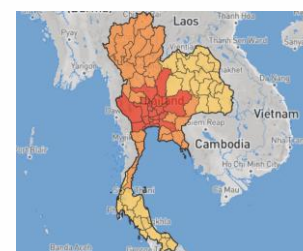
River Flood : High



Coastal Flood : High



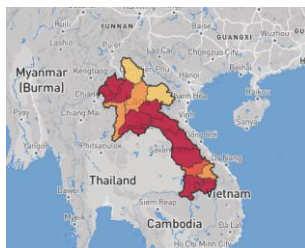
Water Scarcity : Medium



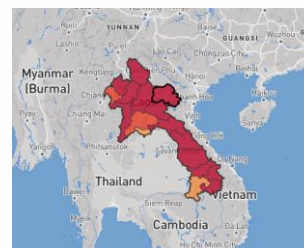
Laos

Cover Hydro Power and Wind Power

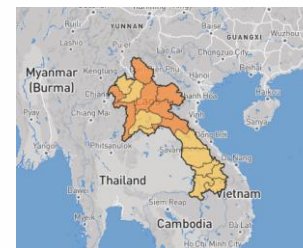
River Flood : High



Landslide : High



Water Scarcity : Low

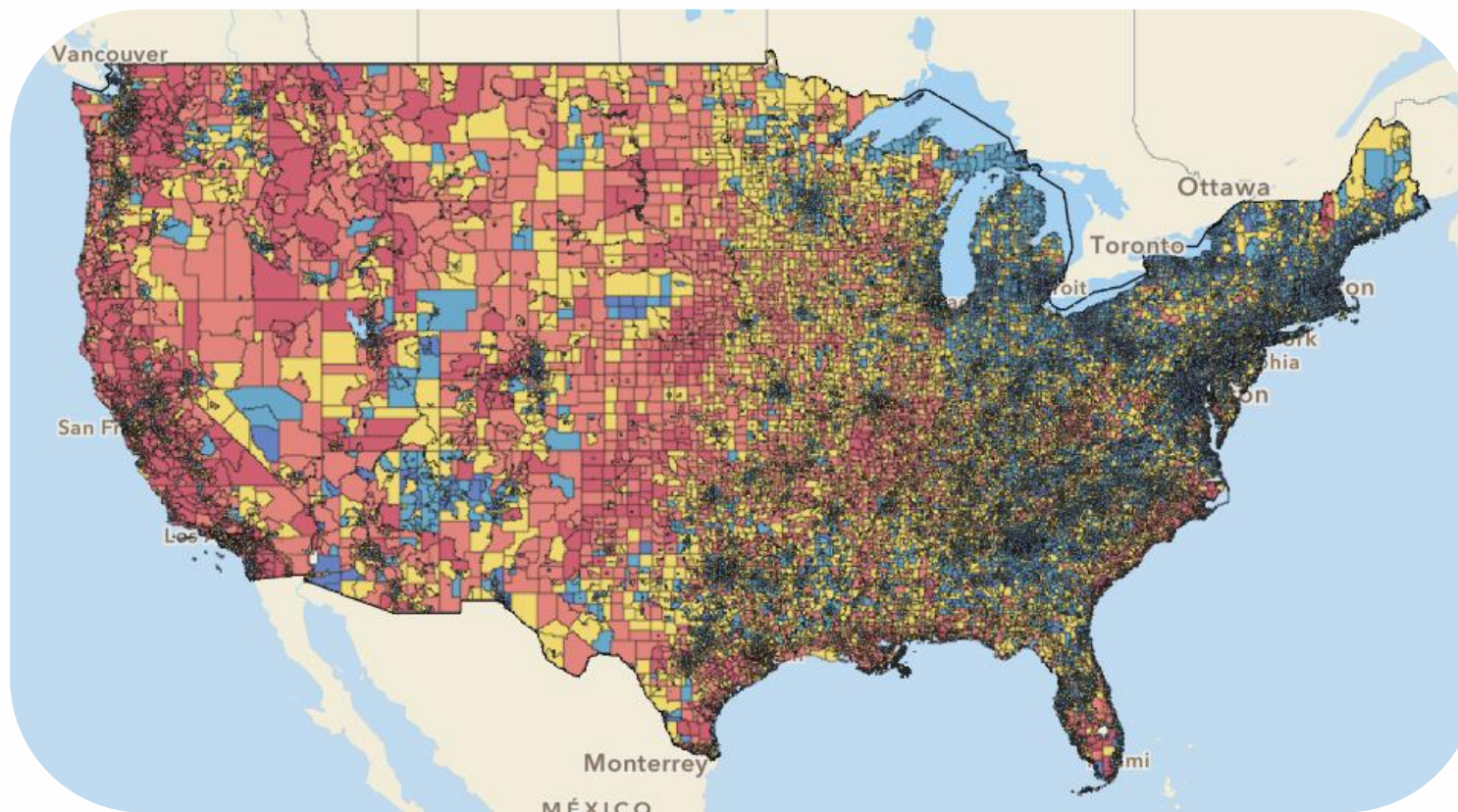


Physical Scenario Analysis

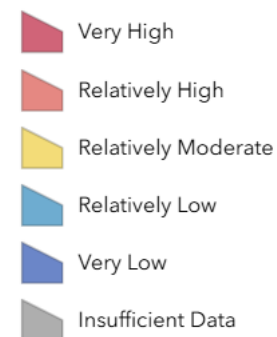
For U.S. CCGT assets, BCPG used FEMA National Risk Index and climate projection indicators from World Bank CCKP to assess baseline exposure and future climate trends. The assessment focuses on extreme winter weather and cold spell duration that may affect plant availability, fuel supply, grid conditions and business continuity.



Cover CCGT Power



National Risk Index Census Tracts



FEMA

Physical Scenario Analysis

BCPG conducts physical climate risk screening across selected hazards and prioritizes risks for detailed assessment based on asset exposure, vulnerability, likelihood and potential financial impact. Hazards with limited expected financial impact are monitored through asset-level risk management and disclosed in the appendix.

Risk Type	Physical Risks	Technology	Indicator	Climate Scenario	Timeframe	Tool
Acute	Flood	Solar 	Precipitation, Average Largest 5-Day Cumulative Precipitation	IPCC SSP1-2.6, SSP5-8.5	Short term: 2026-2027 Medium term: 2028-2030 Long term: beyond 2030, with 2050 as reference year	ThinkHazard for baseline; World Bank CCKP for projected precipitation
	Drought	Hydro 	Precipitation, Max Number of Consecutive Dry Days			ThinkHazard for baseline; World Bank CCKP for precipitation and consecutive dry days
	Water Stress	Hydro, Solar  	Max Number of Consecutive Dry Days			WRI Aqueduct for baseline; World Bank CCKP for consecutive dry days
	Landslide	Hydro, Wind  	Precipitation, Average Largest 5-Day Cumulative Precipitation			ThinkHazard for baseline; World Bank CCKP for projected precipitation
	Snowstorm / Extreme Weather	CCGT 	Cold Spell Duration Index			FEMA National Risk Index for baseline; World Bank CCKP for cold spell
Chronic	Rising Sea Level	Oil terminal 	Sea Level Change			ThinkHazard for baseline; World Bank CCKP for projected sea level

Remark : Excluding operations in Taiwan due to data availability

Likelihood Criteria

Risk	Opportunity	Likelihood
4 Very High	4 Very High	Almost certain: Expected to occur or already observed during the timeframe
3 High	3 High	Possible: Could occur based on historical events, forecast or scenario data
2 Medium	2 Medium	Unlikely: Not expected but plausible under stress conditions
1 Low	1 Low	Rare: Limited evidence or low exposure during the timeframe

Transition Risk Assessment

Risks Type	Climate Scenario	Risk	Likelihood			Potential Financial Impact	Business unit	Financial Type
			2026–2027	2028–2030	Beyond 2030			
R1: Policy and regulation	STEPS IEA: NZE	Carbon pricing and stricter emissions regulation for U.S. CCGT assets				- Potential increase in operating cost from carbon pricing, emissions allowance costs, compliance requirements, and additional reporting or assurance obligations. - Over the medium to long term, stricter emissions regulation could affect dispatch competitiveness, margin, asset valuation, and long-term portfolio positioning of CCGT assets.	CCGT	- OPEX
R2: Technology	STEPS IEA: NZE	- Technology commercialization - Decarbonization CAPEX				- Potential impairment or fair value adjustment if battery-related investment does not meet expected commercial performance. - Potential increase in CAPEX and OPEX for decarbonization, technology upgrades, emissions reduction, and environmental compliance. - Over the long term, assets that cannot transition cost-effectively may face reduced competitiveness, lower valuation, or earlier-than-expected reinvestment needs.	- CCGT - Oil terminal - Vanadium Redox Flow Battery	- OPEX - CAPEX - Revenue



Low



Medium



High



Very High

Transition Risk Assessment

Risks Type	Climate Scenario	Risk	Likelihood			Potential Financial Impact	Business unit	Financial Type
			2026–2027	2028–2030	Beyond 2030			
R3: Market	STEPS IEA: NZE	Fossil fuel demand uncertainty due to energy transition, changing demand, renewable penetration, and electrification				- Potential reduction in revenue and EBITDA from lower dispatch, lower capacity or energy market margins, lower utilization, lower oil throughput, or weaker demand for fossil fuel-related infrastructure. - Over the long term, market repricing may affect asset valuation and reinvestment decisions.	- CCGT - Oil terminal	- Revenue
R4: Reputation	STEPS IEA: NZE	Reputational pressure from investors, lenders, rating agencies, ESG assessors, and other stakeholders				- Potential negative impact on ESG rating, investor perception, access to green or sustainability-linked financing, cost of capital, and stakeholder confidence. - Reputational pressure may also increase disclosure, engagement, and assurance costs.	- CCGT - Oil terminal	- OPEX - CAPEX - Revenue



Low



Medium



High



Very High

Physical Risk Assessment

Risks Type	Climate Scenario	Risk	Likelihood			Potential Financial Impact	Business unit	Financial Type
			2026–2027	2028–2030	Beyond 2030			
R5: Acute	SSP1 – 2.6 SSP5 – 8.5	- Snowstorm / extreme winter weather for U.S. CCGT assets - Flood risk for solar assets in Thailand - Drought risk for hydro assets in Lao PDR				- Potential revenue loss from lower generation or forced outage, higher repair and maintenance cost, higher insurance premium or deductible, business interruption, and additional CAPEX for resilience measures. - For U.S. CCGT, extreme winter events may also create short-term cost exposure from fuel price spikes, operational constraints, or market volatility.	- Solar - Hydro - CCGT	- OPEX - CAPEX - Revenue
R6: Chronic	SSP1 – 2.6 SSP5 – 8.5	Sea level rise, coastal flooding and coastal weather variability affecting oil terminal in Thailand				- Potential increase in maintenance cost, inspection cost, corrosion prevention cost, drainage improvement cost, coastal protection cost, insurance cost and adaptation CAPEX. - Potential disruption to marine operations if abnormal wave, wind or weather conditions prevent vessels from berthing safely, which may affect throughput, service reliability and revenue. - Over the long-term, sea-level rise and coastal flooding may affect land boundary, asset integrity, useful life, safety management and asset valuation if adaptation is not adequately planned.	Oil terminal	- OPEX - CAPEX - Revenue



Low



Medium



High



Very High

Opportunities Assessment Process

BCPG identifies and assesses climate-related opportunities through a structured process, integrating key opportunities into business strategy and investment planning to support the low-carbon transition, enhance resilience, and create long-term value.



Opportunity Assessment

Opportunity	Climate Scenario	Opportunity	Likelihood			Potential Financial Impact	Strategic Response	Financial Type
			2026–2027	2028–2030	Beyond 2030			
O1: Resource Efficiency	STEPS IEA: NZE	Demand for cost-saving and energy-efficient solutions				- Potential increase in revenue and EBITDA from energy efficiency services, district cooling, solar rooftop and related customer solutions. - Potential improvement in customer stickiness through long-term service contracts and integrated utility offerings.	Expand cost-saving and low-carbon solutions, including solar rooftop, district cooling, energy management and utility solutions for commercial, industrial and data center customers.	- CAPEX - Revenue
O2: Energy Source	STEPS IEA: NZE	Demand for low-carbon electricity and decentralized energy				- Potential revenue and EBITDA growth from new solar projects, private PPA, renewable energy supply, and hybrid renewable-plus-storage solutions. - Potential long-term growth from customers with large and increasing electricity demand, including industrial estates and data centers.	- Pursue solar rooftop, private PPA, decentralized power and hybrid renewable solutions with customers seeking low-carbon and reliable electricity. - Explore partnership models for serving large-load customers such as data centers and industrial platforms.	- CAPEX - Revenue
O3: Products & Services	STEPS IEA: NZE	Expansion of low-carbon infrastructure and customer solutions				- Potential increase in revenue from new products and services, long-term customer contracts, recurring service income, and infrastructure-based business models. - Potential upside from bundling solar, storage, cooling and energy management into integrated customer solutions.	- Develop integrated low-carbon infrastructure solutions, including solar, district cooling, battery, energy management and resilient power solutions. - Prioritize customers with strong demand for reliability, cost saving and decarbonization, including data centers, industrial estates and large commercial customers.	- CAPEX - Revenue



Low



Medium



High



Very High

Opportunity Assessment

Opportunity	Climate Scenario	Opportunity	Likelihood			Potential Financial Impact	Strategic Response	Financial Type
			2026–2027	2028–2030	Beyond 2030			
04: Markets	STEPS IEA: NZE	Growth capture from decarbonization and energy transition markets				- Potential increase in revenue, EBITDA and asset value from new market entry, expansion of customer solutions, and higher demand for low-carbon infrastructure. - Potential improvement in access to green or sustainability-linked finance if business growth is aligned with taxonomy and transition expectations.	- Capture growth from decarbonization by expanding low-carbon infrastructure, energy solutions and strategic partnerships. - Monitor policy incentives, green taxonomy, data center demand, industrial decarbonization and customer demand for reliable low-carbon utilities.	- CAPEX - Revenue
05. Resilience	STEPS IEA: NZE	Battery and resilient energy solutions				- Potential new revenue stream from Battery-as-a-Service, energy storage projects, resilience services, peak shaving, backup power, and renewable integration. - Potential upside depends on battery cost, customer adoption, commercial model, utilization rate and ability to scale.	Explore Battery-as-a-Service and energy storage business models, especially for customers requiring reliable and low-carbon power. Assess commercial feasibility, customer demand, technology maturity, battery cost trends and partnership models.	- CAPEX - Revenue



Low



Medium



High



Very High

Financial Impact Estimation 2026-2027

BCPG estimates short-term financial impact by assessing potential effects on revenue, OPEX, CAPEX, EBITDA, cash flow and asset value. The assessment uses available internal information, including annual budget assumptions, asset operating data, insurance coverage, historical outage records, investment screening assumptions, internal carbon price, and climate-related scenario analysis. Where the financial effect cannot be reliably quantified, BCPG provides qualitative assessment and will further enhance quantitative analysis under the IFRS S2 implementation roadmap.

Business	Risk	Estimated Financial Impact 2026-2027
CCGT Power in U.S.	Carbon tax / carbon pricing	No material short-term impact identified under current applicable regulation
CCGT Power in U.S.	Snowstorm / extreme weather	No material budgeted impact identified for 2026–2027
Solar Power in Thailand	Flood / water stress	No material short-term financial impact identified
Oil Terminal in Thailand	Lower oil demand and throughput volume	No material short-term impact identified based on current contract / budget assumptions
Hydro Power in Lao PDR	Drought / water stress	Potential EBITDA impact estimated at 0-40 MB
Vanadium Redox Flow Battery	Technology commercialization and scale-up risk	No impairment identified in 2026–2027 based on current assessment

Business	Opportunity	Estimated Financial Impact 2026-2027
Solar Power	Demand for low-carbon and cost-saving power	Potential additional EBITDA estimated at 50-100 MB
Battery-as-a-Service	Demand for resilient and low-carbon energy solutions	

Integration into Strategy Formulation, Budgeting and Investment Decision-Making

In 2026, BCPG enhanced the integration of climate-related risks and opportunities into strategy formulation, annual budgeting, investment screening, and portfolio review. Climate-related assumptions, including internal carbon price, carbon tax exposure, physical risk exposure, resilience CAPEX, insurance coverage, water availability, and demand for low-carbon solutions, are considered in relevant budget assumptions and investment proposals. For new investments, climate-related risks are reviewed together with commercial, technical, legal, financial, ESG and country risks before management and committee approval.

Strategy & Budgeting



Investment



Supporting Climate Policy through Trade Associations and Collaborative Networks

BCPG actively participates in or monitors national and international trade associations and collaborative platforms to support climate policy, renewable energy development, carbon market advancement, and sustainable business practices. The Company periodically reviews its memberships to ensure alignment with its corporate strategy, ESG commitments, and climate-related objectives.



United Nations Global Compact

Climate governance, responsible business conduct, climate disclosure and international best practices



Thailand Greenhouse Gas Management Organization

GHG management, carbon reduction mechanisms, carbon market development and Net Zero transition



Federation of Thai Industries

Climate policy engagement, low-carbon transition, renewable energy development



Thai Renewable Energy

Renewable energy transition, clean energy deployment, Net Zero advocacy



Carbon Market Club

Carbon market promotion, carbon credit trading, carbon pricing mechanisms, GHG management, climate finance and Net Zero transition

BCPG will periodically review whether the positions and public policy advocacy of key trade associations are aligned with the Company's Climate Strategy, Carbon Neutrality, Net Zero targets and the Paris Agreement. Where material misalignment is identified, the Company will reconsider its membership.

Climate Risk Management

Company-Wide Risk Management System & Climate-Related Risks

BCPG conducts context-specific qualitative and quantitative scenario analysis of climate-related risks including both physical and transition risks in accordance with Enterprise Risk Management Framework - COSO ERM 2017.

Climate-related risks and opportunities are integrated into BCPG's enterprise risk management, annual budgeting, investment screening and portfolio review processes. Relevant risks are assessed based on potential impacts on revenue, OPEX, CAPEX, EBITDA, cash flow, asset value and business continuity.

1. Target Setting

2. Risk Identification

3. Risk Assessment

4. Risk Response

5. Monitoring & Reporting

Strategic Risk

- Impact to corporate and business strategy; i.e., business trend, technology change, demand-supply, customer retention, competition , partner loss, etc.

Operational Risk

- Impact to internal processes, people and systems; i.e., production process , operating controls, HR, IT, etc.

Financial Risk

- Changes to the economic and financial environment i.e., FX, interest rate, price, debt, tax rate and accounting problems.

Compliance and Reputational Risk

- Impact to image and goodwill of the company; i.e., security, environmental concern, social responsibility, compliance and fraud risk , and complaints from clients and stakeholders.

Climate-Related Risk Liked to Corporate Risk

Financial Impact Criteria

*Reference: Latest approved Budget 2026

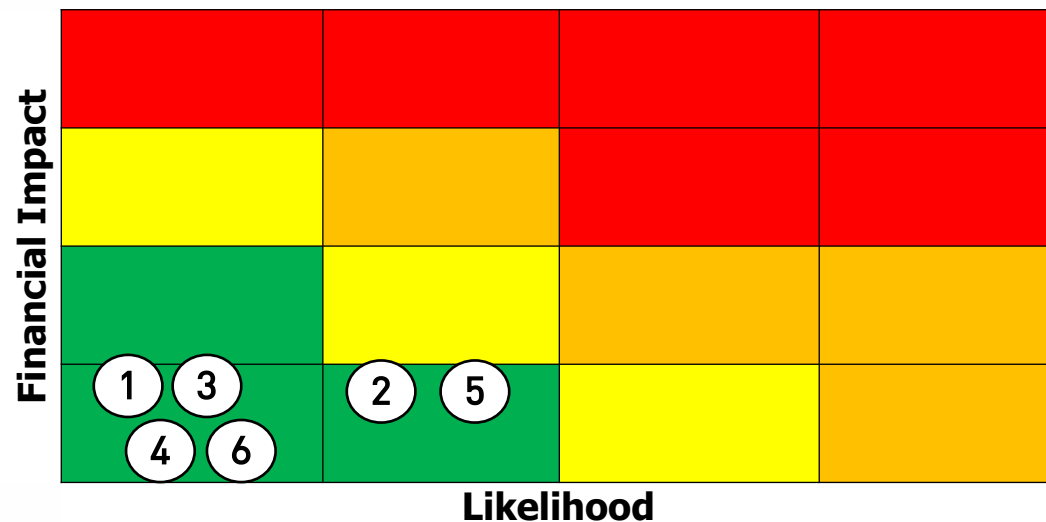
Risk	Financial Impact*
4 Critical	- Lower EBITDA, Revenue or Profit after Tax (PAT) >10%
3 High	- Lower EBITDA, Revenue or Profit after Tax (PAT) >5% -10%
2 Medium	- Lower EBITDA, Revenue or Profit after Tax (PAT) >1% - 5%
1 Low	- Lower EBITDA, Revenue or Profit after Tax (PAT) ≤1%

Opportunity	Financial Impact*
4 Very High	+ Increase EBITDA, Revenue or Profit after Tax (PAT) >10%
3 High	+ Increase EBITDA, Revenue or Profit after Tax (PAT) >5% - 10%
2 Medium	+ Increase EBITDA, Revenue or Profit after Tax (PAT) >1% - 5%
1 Low	+ Increase EBITDA, Revenue or Profit after Tax (PAT) ≤1%

For 2026–2027 short-term financial impact estimation, the Company applies the same financial impact criteria to assess potential effects on EBITDA, revenue and PAT, while also considering OPEX, CAPEX, cash flow, asset value and business continuity where relevant.

Risk and Opportunity Assessment 2026-2027

Risk Assessment



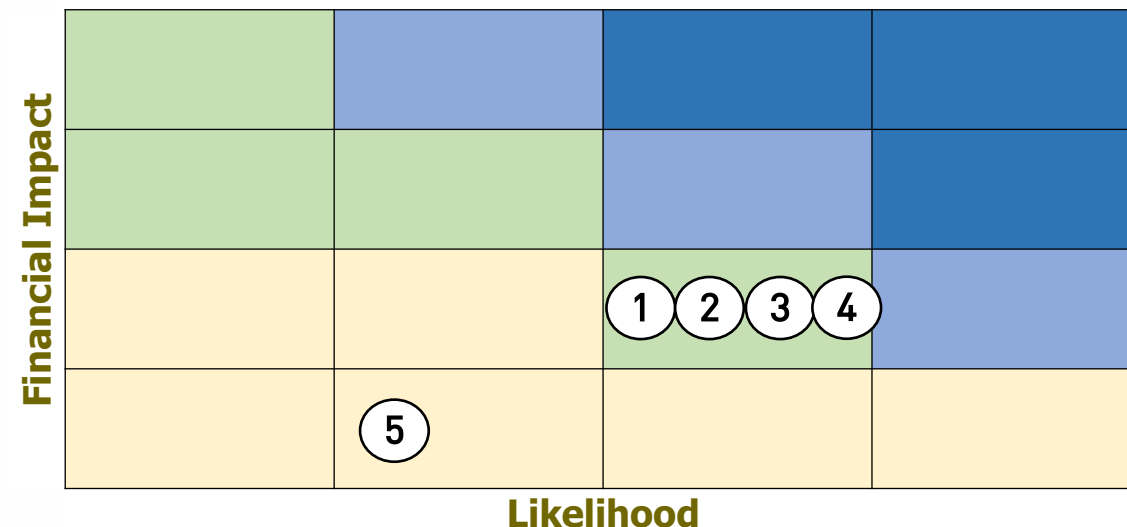
Transition Risks

- R1: Policy and regulation
- R2: Technology
- R3: Market
- R4: Reputation

Physical Risks

- R5: Acute
- R6: Chronic

Opportunity Assessment



Opportunity

- O1: Resource Efficiency
- O2: Energy Source
- O3: Products & Services
- O4: Markets
- O5: Resilience

Transition Risk Management (Timeframe 2026-2027)

Issue	Climate Scenario	Business Unit	Risk	Risk Level (LxI)	Existing Risk Response	Key Risk Indicators
R1: Policy and regulation	STEPS IEA: NZE	- CCGT	Carbon pricing and stricter emissions regulation for U.S. CCGT assets	Low (1,1)	- Monitor U.S. federal and state-level climate and power-sector regulations. - Assess carbon cost sensitivity using relevant carbon price assumptions and BCP Group Internal Carbon Price where applicable. - Review potential impacts on OPEX, EBITDA, dispatch competitiveness and asset value as part of portfolio review, budgeting and investment decision-making.	Carbon price / emissions allowance price
R2: Technology	STEPS IEA: NZE	- CCGT - Oil terminal - Vanadium Redox Flow Battery	- Technology commercialization - Decarbonization CAPEX	Low (2,1)	- Monitor commercial progress, technology readiness, cost competitiveness and market adoption of vanadium redox flow battery. - For CCGT and oil terminal assets, monitor decarbonization technology options, including efficiency improvement, emissions reduction or CCS/CCUS readiness where relevant.	- CCGT emissions intensity - Oil terminal energy consumption - Battery cost per kWh or system cost trend



Low



Medium



High



Critical

Transition Risk Management (Timeframe 2026-2027)

Issue	Climate Scenario	Business Unit	Risk	Risk Level (LxI)	Existing Risk Response	Key Risk Indicators
R3: Market	STEPS IEA: NZE	- CCGT - Oil terminal	Fossil fuel demand uncertainty due to energy transition, changing demand, renewable penetration, and electrification	Low (1,1)	- Monitor power market fundamentals for U.S. CCGT, including demand, capacity price, dispatch level, gas price, renewable penetration, reserve margin and market rule changes. - For oil terminal, monitor domestic oil demand, throughput volume, utilization rate, customer contract structure and alternative fuel / electrification trends.	- PJM capacity price - CCGT dispatch rate - CCGT capacity factor - CCGT spark spread - Oil throughput volume - Oil terminal utilization rate
R4: Reputation	STEPS IEA: NZE	- CCGT - Oil terminal	Reputational pressure from investors, lenders, rating agencies, ESG assessors, and other stakeholders	Low (1,1)	- Communicate the strategic role of CCGT and oil terminal assets in energy security, system reliability and transition resilience while disclosing climate-related risks and mitigation actions transparently. - Monitor ESG rating feedback and stakeholder concerns, and incorporate material feedback into sustainability strategy, investor communication and risk management.	- ESG rating - CSA score



Low



Medium



High



Critical

Physical Risk Management (Timeframe 2026-2027)

Issue	Climate Scenario	Business Unit	Risk	Risk Level (LxI)	Existing Risk Response	Key Risk Indicators
R5: Acute	SSP1 – 2.6 SSP5 – 8.5	- Solar - Hydro - CCGT	- Snowstorm / extreme winter weather for U.S. CCGT assets - Flood risk for solar assets in Thailand - Drought risk for hydro assets in Lao PDR	Low (2,1)	- For U.S. CCGT, monitor winter weather exposure, fuel supply risk, plant availability, grid conditions and emergency preparedness. Review winterization measures, insurance coverage, emergency response and lessons learned from extreme weather events. - For Thailand solar assets, assess flood exposure before investment and during operation, monitor heavy rainfall and site drainage, conduct preventive maintenance, and maintain business interruption insurance where appropriate. - For Lao PDR hydro assets, monitor rainfall, inflow, water level and drought conditions, and manage water release in accordance with concession and local requirements. - Integrate acute physical risk into BCP/BCM, emergency drills, insurance review and asset-level risk monitoring.	- U.S. – extreme low temperature, forced outage rate, fuel supply interruption, plant availability - TH – heavy rainfall - LA – consecutive dry days
R6: Chronic	SSP1 – 2.6 SSP5 – 8.5	- Oil terminal	Sea level rise and coastal weather variability affecting oil terminal in Thailand	Low (1,1)	- Monitor long-term climate trends including mean temperature, extreme heat days, sea level rise, coastal flood exposure, rainfall pattern and drainage performance. - Monitor coastal land boundary change and seawater encroachment, especially areas where land near the sea has already been affected.	- Sea level rise projection - Coastal flood exposure



Low



Medium



High



Critical

Opportunity Management (Timeframe 2026-2027)

Issue	Climate Scenario	Business Unit	Opportunity	Opportunity Level (LxI)	Existing Opportunity Response	Opportunity Indicators
O1: Resource Efficiency	STEPS IEA: NZE	- Solar - District cooling	• Demand for cost-saving and energy-efficient solutions	Medium (3,2)	• Develop cost-saving and low-carbon solutions such as solar rooftop, district cooling, energy management and efficiency services for commercial, industrial and data center customers.	• Electricity price • Carbon tax / Carbon pricing
O2: Energy Source	STEPS IEA: NZE	- Solar - Battery	• Demand for low-carbon electricity and decentralized energy	Medium (3,2)	• Expand solar rooftop, private PPA and decentralized energy for customers seeking low-carbon power, cost saving and energy security. • Explore hybrid solar-plus-storage where feasible.	• Electricity price • Carbon tax / Carbon pricing • Third-party access • Data center growth
O3: Products & Services	STEPS IEA: NZE	- Solar - Battery - District cooling	• Expansion of low-carbon infrastructure and customer solutions	Medium (3,2)	• Develop integrated solutions combining solar, cooling, battery, energy management and utility infrastructure for data centers, industrial estates and large commercial customers.	• Electricity price • Carbon tax / Carbon pricing

Low
 Medium
 High
 Very High

Opportunity Management (Timeframe 2026-2027)

Issue	Climate Scenario	Business Unit	Opportunity	Opportunity Level (LxI)	Existing Opportunity Response	Opportunity Indicators
04: Markets	STEPS IEA: NZE	- Solar - Battery	• Growth capture from decarbonization and energy transition markets	Medium (3,2)	• Capture growth from decarbonization, corporate net-zero demand, green taxonomy and data center expansion through low-carbon infrastructure, energy solutions and partnerships.	• Carbon tax / Carbon pricing • Third-party access • Data center growth
05: Resilience	STEPS IEA: NZE	- Solar - Battery	• Battery and resilient energy solutions	Low (2,1)	• Explore Battery-as-a-Service, storage, hybrid renewable-plus-storage and resilience solutions for data centers, industrial estates and critical infrastructure.	• Electricity price • Battery cost per kWh or system cost trend

 Low
  Medium
  High
  Very High

Metrics and Targets

BCPG's Climate Objective

BCPG marks the mid-term plan to reach Carbon Neutral in 2030 and the long-term plan to achieve Net Zero in 2050.



Reforestation



Electric Vehicle



Green Power Supply

Where we want to be...

Net Zero
2050



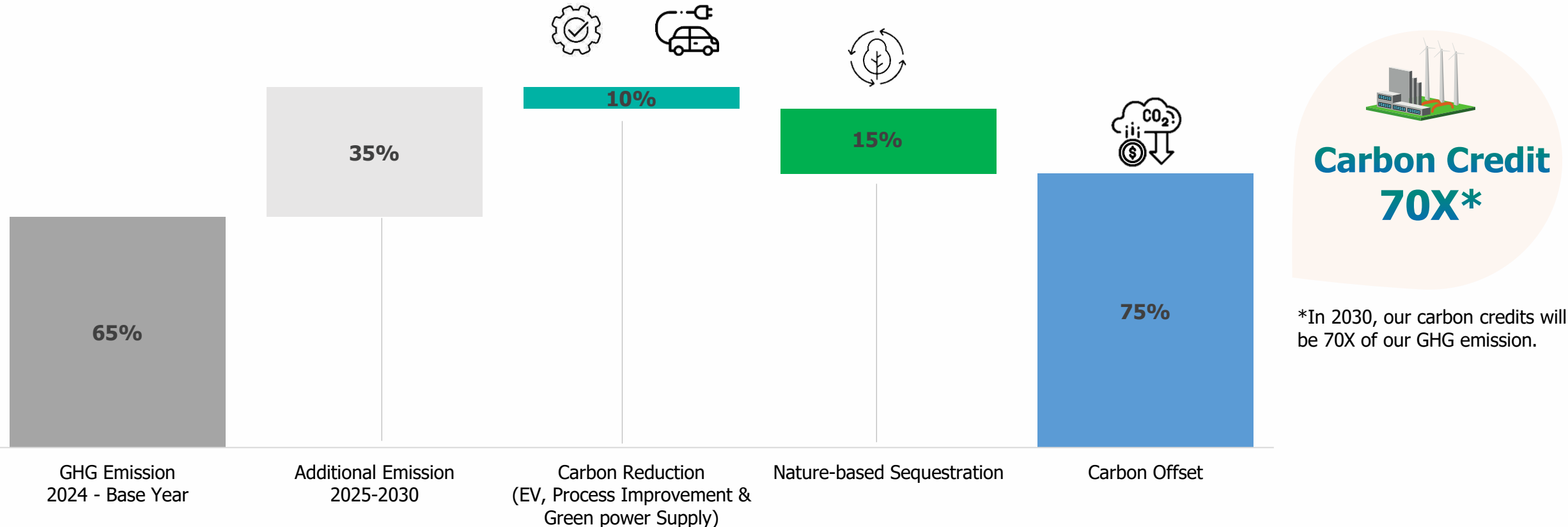
Since 2022

Pathway to Carbon Neutral in 2030

BCPG updated its GHG pathway using 2024 as the base year to reflect the current portfolio and operational boundary. The Carbon Neutral 2030 target covers Scope 1 and Scope 2 emissions from assets under operational control. BCPG prioritizes direct emissions reduction through process improvement, energy efficiency, green power supply, and EV adoption. Residual Scope 1 and Scope 2 emissions that cannot be technically or economically reduced will be balanced through nature-based sequestration and carbon credits.

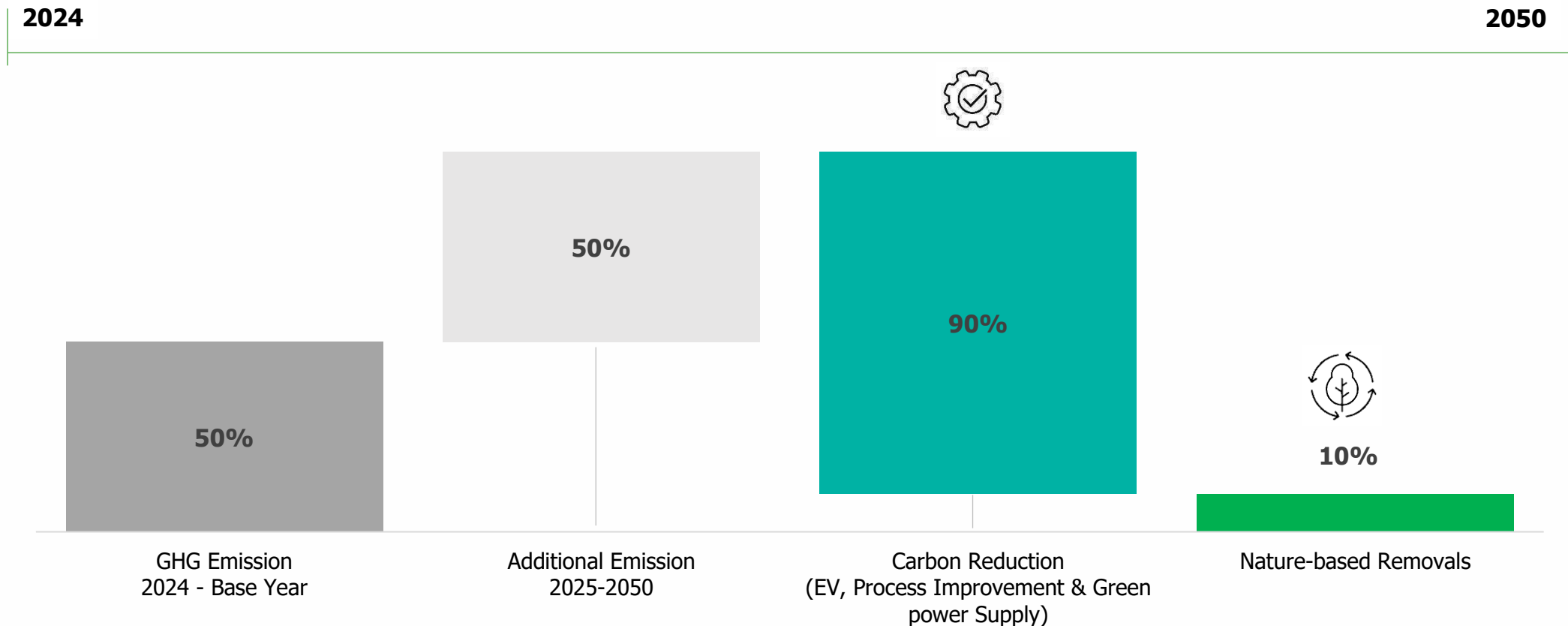
2024

2030



Pathway to Net Zero in 2050

BCPG's Net Zero 2050 pathway uses 2024 as the base year and focuses on reducing emissions within the Company's operational boundary as far as technically and economically feasible. A significant portion of BCPG's emissions is related to electricity consumption in power-related operations and supporting facilities. Therefore, long-term emissions reduction depends on both internal efficiency improvement and the availability of low-carbon electricity from the grid, as well as regulations that allow companies to procure or claim green electricity through mechanisms such as renewable energy certificates, green tariffs, corporate PPAs or other market-based instruments where applicable.



GHG Emissions Performance: Scope 1, Scope 2 and Selected Scope 3

Greenhouse Gas (GHG) Emissions		
Unit: tCO ₂ e	2024	2025
Direct Greenhouse Gas Emissions (Scope 1)	267	275
Indirect Greenhouse Gas Emissions from Purchased Electricity (Scope 2)	2,177	2,214
Other Indirect Greenhouse Gas Emissions (Scope 3)	836	1,789
Category 1: Purchased goods and services	8	1,075*
Category 3: Fuel-and Energy-Related Activities Not Included in Scope 1 or Scope 2	404	412
Category 5: Waste generated in operations	48	91*
Category 6: Business Travel	376	210
Total Greenhouse Gas Emissions (Scope 1 and Scope 2)	2,444	2,489
Total Greenhouse Gas Emissions (Scope 1, Scope 2 and Scope 3)	3,280	4,278

GHG reporting boundary: Scope 1, Scope 2 and selected Scope 3 emissions from BCPG's headquarters, Thailand power plants and Asia Link Terminal in Thailand.

Selected Scope 3 categories currently include Category 1, Category 3, Category 5 and Category 6. BCPG will continue to enhance Scope 3 data coverage and data quality in line with IFRS S2 readiness and future assurance requirements.

*Expanded data collection for tank terminal operations.

Overview of the BCPG Climate Change Initiatives

Risk Mitigation

- Business continuity plan / business continuity management for climate-related disruption
- Physical risk assessment
- Insurance and resilience CAPEX review
- Carbon pricing and regulatory monitoring
- Decarbonization CAPEX assessment for CCGT and oil terminal
- Battery technology monitoring

Opportunity Capture

- Solar rooftop and private PPA for low-carbon and cost-saving power
- District cooling and energy efficiency solutions
- Battery-as-a-Service and energy storage
- Green finance and taxonomy-aligned investment

Governance / Data / Disclosure

- TCFD enhancement with reference to IFRS S2
- Short-term financial impact estimation 2026–2027
- Integration into annual budgeting and investment screening
- GHG data management and CFO Enhancement Project
- Climate-related KRIs and opportunity indicators

Carbon Market Club & CFO Enhancement Project

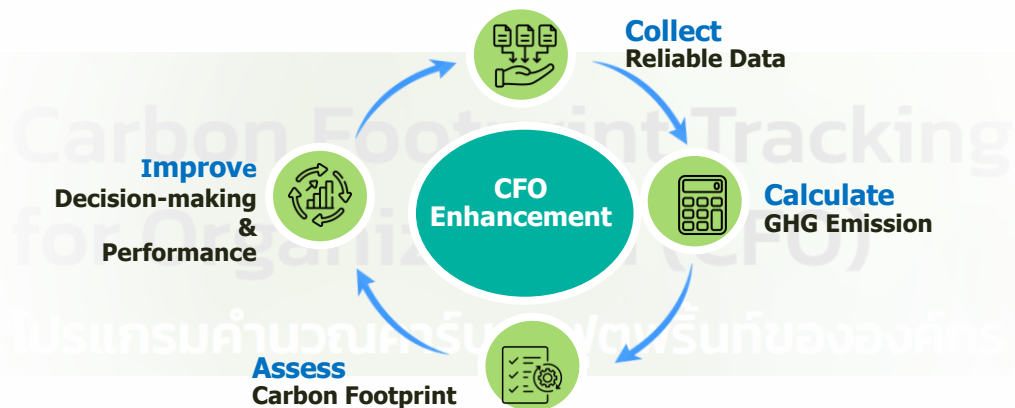
Supporting Climate Risk Management and Low-Carbon Transition

BCPG is one of 11 leading organizations in Thailand that co-developed the Carbon Market Club, a collaborative platform established to support Thailand's greenhouse gas (GHG) reduction targets and accelerate the transition toward a Low-carbon economy.



The Carbon Market Club promotes climate knowledge sharing, carbon footprint assessment, and carbon credit trading mechanisms, enabling organizations to better manage GHG emissions and strengthen resilience against climate-related risks. Over the past five years, the platform has continuously developed carbon market tools, knowledge resources, and digital solutions to support sustainable business transformation.

During 2025–2026, the Club launched the CFO Enhancement Project to improve Carbon Footprint for Organization (CFO) management. Key developments include the introduction of Data Import Functions and standardized Excel Templates, allowing organizations to efficiently integrate existing operational data into the platform, reduce reporting complexity, and enhance the accuracy and consistency of GHG emissions assessment. Knowledge-sharing activities conducted in 2025 included five climate-related webinars covering Carbon Tax, Low-Carbon Products, Digital Forest Solutions, Climate Change Legislation, and Climate Risk Management. In addition, monthly climate awareness articles were published to enhance stakeholder understanding of climate change, carbon markets, and sustainable business practices.



Outcomes



1,700+
members



327
Organizations



1,411
Individuals



200+
Monthly Climate Articles

Appendices 1 :

Physical Scenario Analysis

Physical Risk Baseline by ThinkHazard Tool

We used Think Hazard (qualitative assessment methodology) to categorize hazard baseline and used CCKP (Climate Change Knowledge Portal by World Bank) to project change under SSP1-2.6 and SSP5-8.5 scenarios in 2026-2027, 2028-2030, and beyond 2030 timeframes.

Risk Score Color Key by ThinkHazard

High	Medium	Low	Very low
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No.	Company Name	Location			Technology	Think Hazard evaluator								
		District	Province	Country		River flood	Urban flood	Coastal flood	Earthquake	Landslide	Tsunami	Volcano	Cyclone	Water scarcity
1	Bangchak Solar Energy (Prachinburi) Co., Ltd.	Wiset Chai Chan	Ang Thong	Thailand	Solar	H	H	N/A	L	VL	N/A	N/A	L	M
2	Bangchak Solar Energy (Buriram 1) Co., Ltd.	Nong Ki	Buriram	Thailand	Solar	L	L	N/A	L	VL	N/A	N/A	L	VL
3	Bangchak SolarEnergy (Buriram) Co., Ltd.	Prakhon Chai	Buriram	Thailand	Solar	L	L	N/A	L	VL	N/A	N/A	L	VL
4	Bangchak Solar Energy (Chaiya- phum 1) Co., Ltd.	Bamnet Narong	Chaiyaphum	Thailand	Solar	L	M	N/A	L	VL	N/A	N/A	L	VL
5	Bangchak Solar Energy Co., Ltd.	Bamnet Narong	Chaiyaphum	Thailand	Solar	L	M	N/A	L	VL	N/A	N/A	L	VL
6	BCPG PCL.	Tha Muang	Kanchanaburi	Thailand	Solar	H	M	N/A	L	VL	N/A	N/A	M	L
7	BSE Power (Kanchanaburi) Co., Ltd.	Bo Phloi	Kanchanaburi	Thailand	Solar	H	H	N/A	L	L	N/A	N/A	M	L
8	BSE Power (Kanchanaburi 1) Co., Ltd.	Bo Phloi	Kanchanaburi	Thailand	Solar	H	H	N/A	L	L	N/A	N/A	M	L
9	BSE Power (Lopburi) Co., Ltd.	Khok Samrong	Lopburi	Thailand	Solar	L	L	N/A	L	L	N/A	N/A	L	M
10	Bangchak Solar Energy (Nakhon Ratchasima) Co., Ltd.	Dan Khun Thot	Nakhon Ratchasima	Thailand	Solar	L	L	N/A	L	VL	N/A	N/A	L	M
11	BCPG PCL.	Bang Pa-In	Phra Nakhon Si Ayutthaya	Thailand	Solar	N/A	H	N/A	L	VL	N/A	N/A	M	M
12	Bangchak Solar Energy Co., Ltd.	Bang Pa-In	Phra Nakhon Si Ayutthaya	Thailand	Solar	N/A	H	N/A	L	VL	N/A	N/A	M	M
13	Bangchak Solar Energy (Prachinburi) Co., Ltd.	Bang Pa-In	Phra Nakhon Si Ayutthaya	Thailand	Solar	N/A	H	N/A	L	VL	N/A	N/A	M	M
14	BCPG Wind (Ligor) Co., Ltd.	Pak Phanang	Nakhon Si Thammarat	Thailand	Wind	H	H	H	L	VL	L	N/A	H	VL
15	Bangchak Solar Energy (Prachinburi) Co., Ltd.	Bang Pa-In	Phra Nakhon Si Ayutthaya	Thailand	Solar	N/A	H	N/A	L	VL	N/A	N/A	M	M
16	Bangchak Solar Energy (Prachinburi) Co., Ltd.	Kabin Buri	Prachinburi	Thailand	Solar	H	H	N/A	L	VL	N/A	N/A	L	L
17	BSE Power (Prachinburi) Co., Ltd.	Muang	Prachinburi	Thailand	Solar	H	H	N/A	L	VL	N/A	N/A	L	L
18	BCPG PCL.	Phra Phutthabat	Saraburi	Thailand	Solar	M	L	N/A	L	H	N/A	N/A	L	M
19	BSE Power (Udonthani) Co., Ltd	Si That	Udon Thani	Thailand	Solar	M	H	N/A	L	VL	N/A	N/A	L	VL
20	BSE Power (Petchnakorn) Co., Ltd	Wichian Buri	Phetchabun	Thailand	Solar	H	M	N/A	L	L	N/A	N/A	L	M
21	BSE Power (Petchnakorn) Co., Ltd	Phipun	Nakhon Si Thammarat	Thailand	Solar	L	H	N/A	L	M	N/A	N/A	H	VL
22	Asia Link Terminal Co., Ltd.	Ban Laem	Phetchaburi	Thailand	Infrastructure	M	L	H	L	VL	L	N/A	H	L
23	Nam San 3A	Khoune	Xiang Khouang	Lao PDR	Hydro	VL	H	N/A	VL	H	N/A	N/A	H	L
24	Nam San 3B	Thathom	Xiang Khouang	Lao PDR	Hydro	H	VL	N/A	L	H	N/A	N/A	H	L

Physical Scenario Analysis : Flood

Projected Anomaly of Precipitation Percent Change in Thailand



Period	SSP1-2.6	SSP5-8.5	Deduction
2020–2039	+2%	+6%	Short-term flood exposure may increase slightly to moderately, especially under SSP5-8.5.
2040–2059	+7%	+6%	Medium- to long-term flood exposure remains elevated under both scenarios.

Horizon	Likelihood	Risk implication
2026–2027	Medium	Increased precipitation signal is already visible, but near-term impact depends on asset location and drainage.
2028–2030	High	Flood risk remains material, especially for sites with high baseline river / urban flood exposure.
Beyond 2030	High	Continued positive precipitation anomaly supports higher long-term flood exposure.



Physical Scenario Analysis : Flood

Projected Anomaly of Average Largest 5-Day Cumulative Precipitation in Thailand



Period	SSP1-2.6	SSP5-8.5	Deduction
2020–2039	104 mm	104 mm	Heavy short-period rainfall exposure is already material. Flood risk remains relevant.
2040–2059	105 mm	106 mm	The projected increase is limited, but heavy rainfall exposure remains persistent. Flood risk should continue to be monitored.

Horizon	Likelihood	Risk implication
2026–2027	Medium	Heavy rainfall exposure is already material. Near-term impact depends on site-specific flood exposure, drainage capacity, elevation and historical flood experience.
2028–2030	Medium	Heavy rainfall exposure remains broadly stable, but Thailand solar assets with high baseline river flood or urban flood exposure should continue to be monitored.
Beyond 2030	High	The projected increase to 105–106 mm by 2040–2059 is not sharp, but persistent heavy rainfall supports long-term monitoring and resilience planning for flood-prone solar sites.



Physical Scenario Analysis : Drought

Projected Anomaly of Max Number of Consecutive Dry Days in Lao PDR



Period	SSP1-2.6	SSP5-8.5	Deduction
2020–2039	34 days	34 days	Drought exposure is material, with around one month of consecutive dry days.
2040–2059	35 days	35 days	No meaningful increase from the short-term period; risk remains stable but persistent.

Horizon	Likelihood	Risk implication
2026–2027	Medium	Around 34–35 consecutive dry days indicates meaningful dry-period exposure for hydro operations.
2028–2030	Medium	Risk remains material, but no clear worsening signal from the scenario data.
Beyond 2030	Medium	Risk remains material, but no clear worsening signal from the scenario data.



Low



Medium



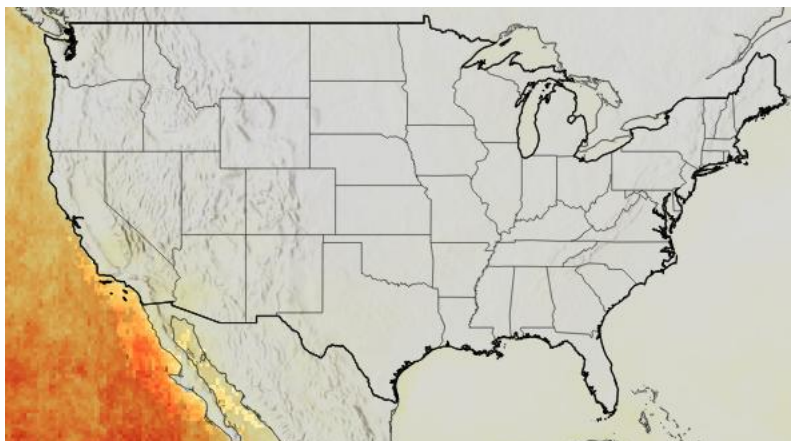
High



Very High

Physical Scenario Analysis : Extreme Weather

Projected Anomaly of Cold Spell Duration Index in U.S.



Period	SSP1-2.6	SSP5-8.5	Deduction
2020–2039	2 days	2 days	Some increase in cold spell duration remains relevant for short-term operational preparedness.
2040–2059	1 day	1 day	Cold spell duration anomaly declines slightly, suggesting no worsening trend in this indicator.
Horizon	Likelihood	Risk implication	
2026–2027	Medium	Cold spell anomaly remains present, and winter storm events can still affect CCGT operations even if duration is limited.	
2028–2030	Medium	No worsening trend from the cold spell indicator, but asset-level exposure should still be monitored.	
Beyond 2030	Low	Indicator suggests declining cold spell anomaly; risk should be managed as event-driven, not trend-driven.	



Physical Scenario Analysis : Sea Level Rise and Coastal Operational Risk

Projected Sea Level Change in Thailand



Period	SSP1-2.6	SSP5-8.5	Deduction
2020	0.040 m	0.040 m	Baseline sea-level rise signal is already present.
2030	0.078 m	0.085 m	Moderate increase; short-to-medium term risk remains manageable but should be monitored.
2050	0.168 m	0.208 m	Material long-term increase, especially under SSP5-8.5; adaptation planning becomes more important.

Horizon	Likelihood	Risk implication
2026–2027	Low	Sea level rise is gradual; immediate financial impact is expected to be limited. However, ALT has observed early signs of seawater encroachment on some coastal land areas.
2028–2030	Medium	More frequent abnormal wave or wind conditions may affect vessel access, berthing windows, and terminal operation reliability.
Beyond 2030	High	Potential impacts include coastal land loss or boundary change, jetty and marine access constraints, higher maintenance cost, coastal protection needs, drainage improvement, and possible adaptation CAPEX.



Physical Scenario Analysis : Landslide

Projected Anomaly of Average Largest 5-Day Cumulative Precipitation in Lao PDR



Period	SSP1-2.6	SSP5-8.5	Deduction
2020–2039	+6 mm	+6 mm	Heavy rainfall exposure increases slightly under both scenarios. Landslide risk remains relevant where baseline susceptibility is high.
2040–2059	+11 mm	+14 mm	Heavier rainfall signal becomes stronger, especially under SSP5-8.5. This supports higher attention to rainfall-triggered landslide risk over the medium to long term

Horizon	Likelihood	Risk implication
2026–2027	Low	Heavy rainfall anomaly is positive, but short-term financial impact depends on site-specific exposure.
2028–2030	Low	Rainfall-trigger potential remains relevant, especially if baseline landslide susceptibility is high.
Beyond 2030	Medium	By 2040–2059, the precipitation anomaly increases to +11 to +14 mm, supporting stronger long-term monitoring and adaptation planning.

● Low
 ● Medium
 ● High
 ● Very High

Physical Scenario Analysis : Water Stress

Projected Anomaly of Max Number of Consecutive Dry Days in Thailand



Period	SSP1-2.6	SSP5-8.5	Deduction
2020–2039	39 days	39 days	Thailand is projected to experience around 39 consecutive dry days, indicating meaningful dry-period exposure.
2040–2059	39 days	40 days	Dry-period duration remains broadly stable, with a slight increase under SSP5-8.5. No sharp worsening, but drought exposure persists.

Horizon	Likelihood	Risk implication
2026–2027	Medium	39 consecutive dry days indicates meaningful dry-period exposure.
2028–2030	Medium	Exposure remains stable; no significant worsening signal.
Beyond 2030	Medium	Slight increase to 40 days under SSP5-8.5 supports continued monitoring.



Physical Scenario Analysis : Water Stress

Projected Anomaly of Max Number of Consecutive Dry Days in Lao PDR



Period	SSP1-2.6	SSP5-8.5	Deduction
2020–2039	34 days	34 days	Around one month of consecutive dry days indicates meaningful dry-period exposure.
2040–2059	35 days	35 days	Slight increase of 1 day; water stress exposure remains persistent but broadly stable.

Horizon	Likelihood	Risk implication
2026–2027	Medium	34 consecutive dry days indicates meaningful dry-period exposure.
2028–2030	Medium	Exposure remains material but stable.
Beyond 2030	Medium	Slight increase to 35 days supports continued monitoring, but not a major escalation.



Low



Medium



High



Very High

Physical Risk and Definition

Risk Type	Physical Risk	Definition	Source
Acute	Flood	The overflowing of the normal confines of a stream or other body of water, or the accumulation of water over areas not normally submerged. Floods include river (fluvial) floods, flash floods, urban floods, pluvial floods, sewer floods, coastal floods and glacial lake outburst floods.	Climate Change Knowledge Portal
	Drought	a period of abnormally dry weather long enough to cause a serious hydrological imbalance. Drought is a relative term; therefore, any discussion in terms of precipitation deficit must refer to the precipitation-related activity that is under discussion.	Climate Change Knowledge Portal
	Water Stress	Water stress measures the ratio of total water demand to available renewable surface and groundwater supplies. Water demand include domestic, industrial, irrigation, and livestock uses. Available renewable water supplies include the impact of upstream consumptive water users and large dams on downstream water availability. Higher values indicate more competition among users.	Aqueduct (World Resources Institute)
	Cyclone	Cyclones, a non-frontal storm system that is characterized by a low-pressure center, spiral rain bands and strong winds. Usually, it originates over tropical or subtropical waters and rotates clockwise in the southern hemisphere and counter-clockwise in the northern hemisphere.	Think Hazard
	Landslide	A landslide is the movement of natural soil and rocks controlled by gravity. Landslides can involve dry mass or wet mass. Dry mass movements can be triggered by violent geophysical hazards such as earthquakes and volcanic eruptions, but they can also be a consequence of water scarcity and soil erosion. Differently, wet mass movements (mudslides) are more often caused by heavy precipitation or ice melting. Landslides are associated with other hazards such as floods, tropical cyclones, and severe local storms.	Think Hazard
	Earthquake	Earthquakes usually happens along a fault plate, the border between tectonic plates. Earthquakes often trigger landslides, tidal waves and tsunamis. Powerful aftershocks frequently occur, causing further damage and increasing psychological stress.	Think Hazard
Chronic	Rising sea levels	Rising sea levels is increases in the height of the sea with respect to a specific point on land.	Climate Change Knowledge Portal
	Rising mean temperatures	Global temperature is an average of air temperature recordings from weather stations on land and sea as well as some satellite measurements. Extreme temperature events (i.e., maximum, minimum) may have short-term durations of a few days with temperature increases of over 5°C above the norma temperatures.	Climate Change Knowledge Portal

Appendices 2 :

TCFD Glossary and Abbreviations

TCFD Glossary and Abbreviations

Glossary	Description
Board of Directors / Board	The body responsible for overseeing the Company's strategy, governance, risk management, performance and long-term value creation, including oversight of material climate-related risks and opportunities.
Climate-related Opportunity	Potential positive impacts arising from climate change, climate policy, technology shifts, market changes or customer demand. Examples include renewable energy, energy efficiency, low-carbon infrastructure, district cooling, battery solutions, and access to green finance.
Climate-related Risk	Potential negative impacts from climate change or the transition to a low-carbon economy. Climate-related risks include transition risks , such as policy, technology, market and reputational risks, and physical risks , such as extreme weather events and long-term climate shifts.
Transition Risk	Risk arising from the transition to a low-carbon economy, including changes in policy and regulation, carbon pricing, technology development, customer demand, market conditions, investor expectations and stakeholder perception.
Physical Risk	Risk arising from the physical impacts of climate change. Physical risks may be acute , such as floods, snowstorms, cyclones and droughts, or chronic , such as rising temperatures, water stress and sea level rise.
Acute Physical Risk	Event-driven physical risk caused by extreme weather events, such as flood, drought, snowstorm, cyclone, landslide or earthquake, which may affect asset availability, revenue, OPEX, CAPEX and business continuity.
Chronic Physical Risk	Long-term physical risk caused by gradual climate shifts, such as rising mean temperature, sea level rise, coastal flooding, water stress or changing rainfall patterns, which may affect asset integrity, maintenance cost and useful life.
Governance	The structures, processes and responsibilities through which the Company oversees climate-related risks and opportunities, including the roles of the Board, Board committees, management committees and relevant functions.

TCFD Glossary and Abbreviations

Glossary	Description
Scenario Analysis	A process used to assess the potential implications of different future climate pathways on the Company's business, strategy, financial planning and portfolio resilience.
Carbon Price	A cost applied to greenhouse gas emissions, either through a carbon tax, emissions trading scheme or internal management assumption. Carbon price assumptions may be used for scenario analysis, risk assessment and investment sensitivity.
Internal Carbon Price / ICP	A carbon price used internally by the Company or Group to assess potential financial impacts from future carbon pricing and to support investment evaluation, budgeting sensitivity and portfolio resilience assessment.
Shadow Carbon Price	A hypothetical carbon price used internally for investment evaluation and climate-related decision-making; it does not represent an actual financial charge.
Financial Impact	The potential effect of climate-related risks and opportunities on financial performance and position, including revenue, OPEX, CAPEX, EBITDA, cash flow, asset value, insurance cost, financing access and cost of capital.
Resilience	The ability of the Company's strategy, portfolio, assets and operations to withstand and adapt to climate-related transition and physical risks while maintaining long-term value creation.
Greenhouse Gas / GHG	Gases that trap heat in the atmosphere and contribute to climate change. Key GHGs include carbon dioxide, methane and nitrous oxide. Emissions are commonly reported in carbon dioxide equivalent, or tCO ₂ e.
Scope 1 Emissions	Direct GHG emissions from sources owned or controlled by the Company, such as fuel combustion from operating assets.
Scope 2 Emissions	Indirect GHG emissions from purchased electricity, steam, heat or cooling consumed by the Company.
Scope 3 Emissions	Other indirect GHG emissions that occur in the Company's value chain, including upstream and downstream activities not included in Scope 1 or Scope 2.

TCFD Glossary and Abbreviations

Glossary	Description
Carbon Neutrality	A state where GHG emissions within the defined boundary are balanced by emissions reductions, removals or offsets over a specified period.
Net Zero	A state where GHG emissions are reduced as far as practicable, and any residual emissions are neutralized through removals in line with the Company's defined target boundary and timeframe.
TCFD	Task Force on Climate-related Financial Disclosures. A framework structured around governance, strategy, risk management, and metrics and targets for climate-related financial disclosure.
IFRS S2	IFRS Sustainability Disclosure Standard on Climate-related Disclosures, issued by the International Sustainability Standards Board. It builds on the TCFD structure and requires disclosure of climate-related risks and opportunities that could affect enterprise value.
CSA	Corporate Sustainability Assessment by S&P Global. It evaluates companies' sustainability performance, including climate strategy, risk management, metrics, targets and disclosure quality.

Appendices 3 :

TCFD Content Index

TCFD Content Index

Pillar	TCFD Recommendation	IFRS S2 Alignment	Page
Governance	Board oversight and management role	Governance processes, controls and procedures	6
Strategy	Risks/opportunities, impact, resilience	Strategy, decision-making, financial effects, resilience	9
Risk Management	Identify, assess, manage, integrate	Identify, assess, prioritize, monitor and integrate into Enterprise Risk Management	31
Metrics and Targets	Metrics, emissions, targets	GHG emissions, climate targets, performance	40

