



**Managing  
What Matters to  
Our Business**

# Overview

To inform the sustainability-related disclosure of its annual suite of reports, CLP adopts the concept of double materiality to identify sustainability-related impacts, risks and opportunities (IROs). This approach means that CLP's Annual Report addresses financially material topics that could reasonably be expected to affect the Group's prospects, while the Sustainability Report focuses on topics that have a material impact on people, the environment and the economy. The assessment complements CLP's established risk management process, further detailed in the Risk Management Report on page 103.

The double materiality assessment operates on a three-year cycle. 2025 was Year 2, centred on reviewing and refreshing results from Year 1 (2024) based on the Group's latest strategic priorities, business risks and insights gathered from external stakeholders including investors, customers and industry experts. There has been no change in CLP's processes for identifying, assessing, prioritising and monitoring sustainability-related and climate-related risks and opportunities from the previous reporting period.

The 2025 assessment identified 93 IROs, of which 57 were rated as high or extreme in magnitude/severity and likelihood. Of these, 35 are sustainability-related financial risks and opportunities, and 22 are stakeholder impacts across the short (0-1 year), medium (1-5 years) and long term (over 5 years). CLP defines the time horizons based on when the IROs could reasonably be expected to occur, aligning with the time horizons used for business planning.

As part of CLP's assessment approach, scenario analysis is not used in the identification of sustainability-related risks. Scenario analysis is applied specifically to climate-related risks and opportunities, reflecting the Group's strategic focus on decarbonisation in line with [Climate Vision 2050](#).

CLP's double materiality assessment is informed by HKFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information for financial materiality, and the Global Reporting Initiative for impact materiality. The process and outcomes were reviewed internally by the management-level Sustainability Executive Committee and the Board-level Sustainability Committee, and have also undergone external assurance.

This section presents CLP's Group-level responses to the financially material risks and opportunities, organised under the five material topics. Market-specific responses can be found in the Business Performance and Outlook chapter on page 50.

Further details of the following topics are provided in CLP's [2025 Materiality Assessment Report](#):

- ❖ The current and anticipated effects of sustainability-related risks and opportunities on the Group's business model and value chain;
- ❖ Where these sustainability-related risks and opportunities are concentrated within the business model and value chain; and
- ❖ How the Group has responded, and plans to respond, to sustainability-related risks and opportunities through its strategy and decision-making processes.

Information on the stakeholder impacts is available in the [2025 Sustainability Report](#).



\* This material topic is not discussed in the Annual Report as no high or extreme sustainability-related financial risks and opportunities were identified. Details of the associated impacts and CLP's responses are provided in the 2025 Sustainability Report.

# Net-Zero Transition

CLP is decarbonising its business and ensuring the energy transition is delivered reliably and affordably in line with Climate Vision 2050 and requirements in its markets. This section addresses the following eight risks and three opportunities deemed financially material to the Group's net-zero transition in the annual materiality assessment. Some of the risks and opportunities are climate-related, which are indicated by the following symbols:



Climate-related physical risk





Climate-related transition risk







Climate-related transition opportunity

## Risks

### Short-term

- ❖ CLP's energy infrastructure assets face extreme weather risks, including extreme heat, storms, heavy rainfall, landslides and water stress, which can damage assets and disrupt services, potentially impacting financial performance. 
- ❖ CLP's operations are dependent on stable natural resources including consistent wind patterns and reliable access to water for cooling. Shifts in these climate variables may potentially affect asset performance and increase costs over time. 

### Medium-term



- ❖ Failure to deliver on Climate Vision 2050 could erode investor confidence in CLP's ability to profitably manage the energy transition, potentially resulting in a lower share price, higher financing costs and reduced access to funding. 
- ❖ Misaligned capital allocation with market-specific energy needs and decarbonisation pathways could hinder CLP's transition from fossil fuels to non-carbon energy assets, potentially resulting in stranded assets, diminished asset value and erosion of investor trust. 
- ❖ Ageing and insufficient grid infrastructure may pose constraints on the distribution of energy from CLP invested assets, including renewable energy and batteries, resulting in revenue loss, potentially affecting reliability and slowing the energy transition. 
- ❖ Exposure to carbon pricing mechanisms may increase CLP's costs and affect financial performance if carbon prices rise significantly. 
- ❖ Regulatory penalties and public health concerns may result from inadequate control of air emissions, wastewater discharges and hazardous waste.

### Long-term

- ❖ Investors are placing increasing expectations on nature- and biodiversity-related management. Failure to keep abreast of the evolving requirements may affect CLP's access to finance and cost of capital.

## Opportunities

### Medium-term

- ❖ Investments in low-carbon energy technologies will strengthen CLP's credentials on decarbonisation and increase trust from customers and investors. 
- ❖ CLP's expanding battery storage portfolio enhances energy supply reliability and supports more flexible energy dispatch in response to demand fluctuations. 
- ❖ New business opportunities can be generated by deploying virtual power plants (VPP) to improve grid flexibility, optimise renewable energy and reduce reliance on fossil fuel generated electricity.

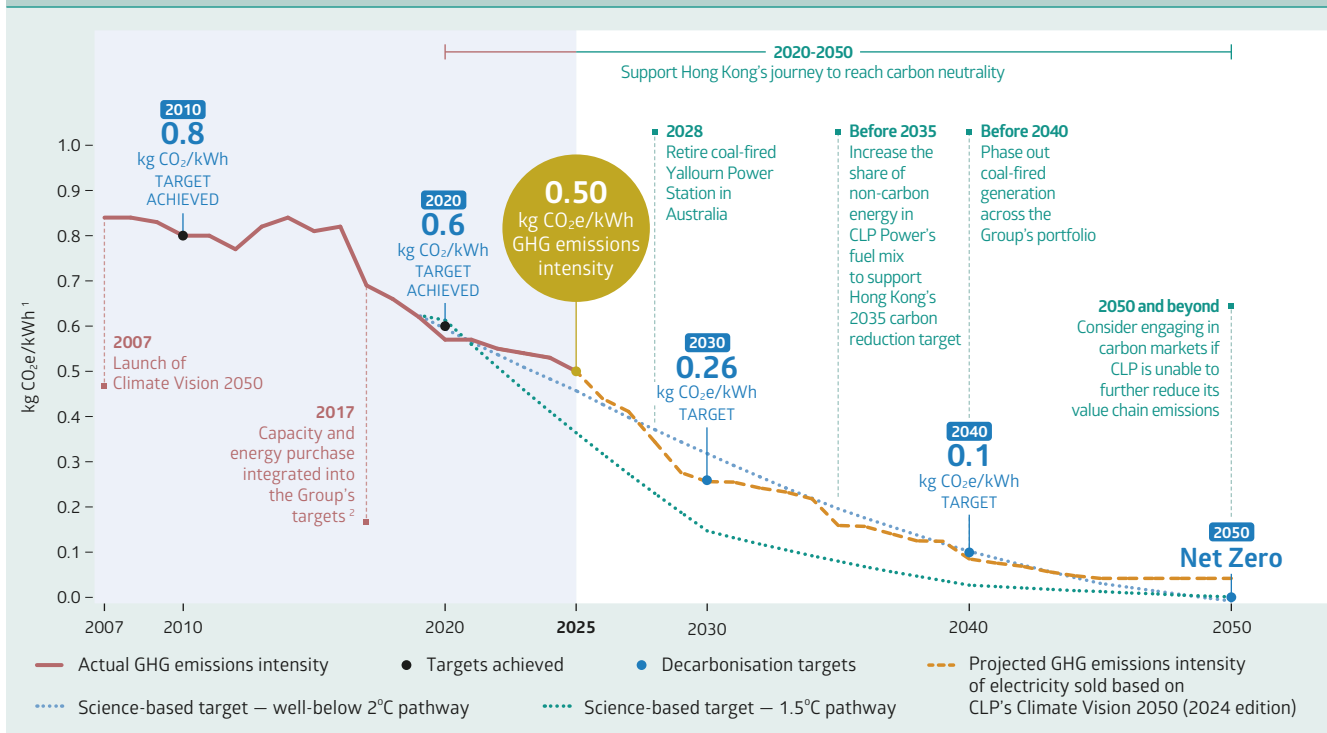
Other climate-related risks and opportunities are covered in Energy Growth Opportunities on page 40 and Operational and Supply Chain Resilience on page 49.

## Reducing GHG emissions

Climate Vision 2050 is CLP's decarbonisation roadmap supporting the Group's transition to a net-zero greenhouse gas (GHG) emissions business by mid-century. In 2025, the Group's total GHG emissions declined by 9.7% year-on-year to 45,783 kilotonnes of carbon dioxide equivalent (CO<sub>2</sub>e) on an equity basis. The GHG emissions intensity of electricity sold was 0.50 kilogrammes (kg) CO<sub>2</sub>e per kilowatt hour (kWh), down from 0.53kg CO<sub>2</sub>e per kWh a year earlier.

On an equity plus long-term capacity and energy purchase basis, the Group's energy sent out and GHG emissions from coal assets decreased by 13.2% and 12.2% year-on-year respectively. Energy sent out from non-carbon energy assets increased 5.3%. Together, these factors contributed to a reduction in the Group's overall GHG emissions intensity.

Chart 1: CLP's Past and Projected GHG Emissions Intensity



Notes:

- CLP's trajectory from 2007 to 2020 was based on the Group's carbon emissions intensity (kg CO<sub>2</sub>/kWh). Since 2021, in line with global best practices, CLP has reported its GHG emissions intensity based on kg CO<sub>2</sub>e/kWh.
- CLP's trajectory from 2017 to 2050 is on an equity plus capacity and energy purchase basis.

## Managing climate-related transition risks and opportunities

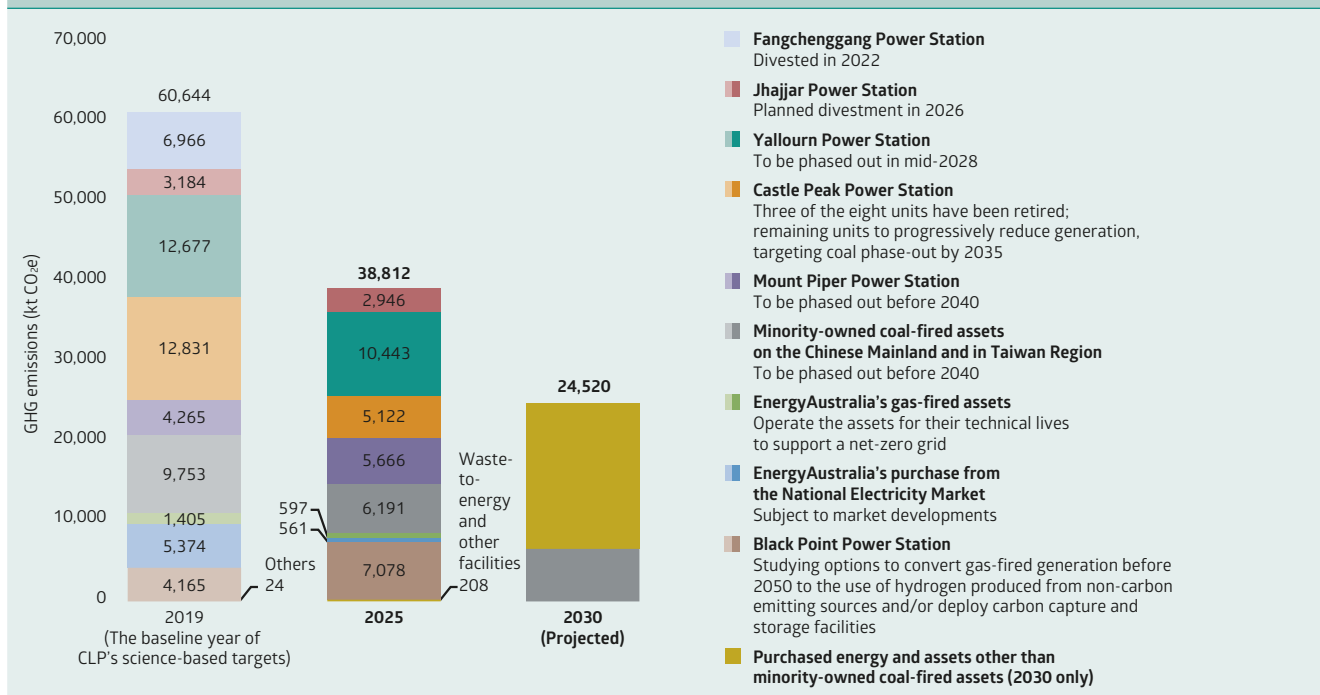
To manage climate-related risks and opportunities, the Group focuses on six key levers to decarbonise its business under Climate Vision 2050:

- ❖ Phase out coal-fired power plants
- ❖ Enable a fuel switch for power generation – transitioning from coal to gas/hydrogen
- ❖ Grow non-carbon energy – expanding nuclear and renewables

- ❖ Build infrastructure to support non-carbon energy delivery and renewable energy growth
- ❖ Enable greater electrification
- ❖ Increase energy efficiency

**i** See [CLP's Climate Vision 2050: Powering an orderly transition](#), published in March 2024, for more information on the Group's climate strategy, including the abovementioned levers, climate-related targets, scenario analysis, the identification and descriptions of climate-related risks and opportunities, as well as the planned use of carbon credits.

**Chart 2: CLP's Past and Projected Absolute GHG Emissions of Electricity Sold and Phase-out Schedule of Fossil Fuel Assets**



**Notes:**

- 1 The figures are on an equity plus capacity and energy purchase basis.
- 2 Numbers have been subject to rounding. Any discrepancies between the total shown and the sum of the amounts listed are due to rounding.

The current and anticipated financial effects of climate-related transition risks are summarised in Table 1. Based on Climate Vision 2050, transition risks are assessed against a high-emissions scenario, used as the baseline business-as-usual case reflecting existing climate policies. Risk levels are then determined by comparing this baseline with two transition scenarios: the deferred transition scenario, which assumes a slower initial decarbonisation followed by a steeper decline aligned with global efforts to limit warming to less than 2°C above pre-industrial levels; and the low-emissions scenario, which reflects a rapid transition aligned with a 1.5°C pathway.

**Table 1: Financial effects of climate-related transition risks <sup>1</sup>**

Transition risks	Relevance to CLP	Financial effects in 2025	Anticipated financial effects (2026-2030)
Domestic decarbonisation policies	All CLP markets	<p>Total capital investment in non-carbon generation assets, transmission, distribution and retail operations:</p> <p><b>HK\$11,459 million</b></p> <p>Also see Chart 3 on page 35.</p> <p>For EnergyAustralia, a HK\$345 million (after tax) provision was recognised in 2025 associated with the planned retirement of Yallourn Power Station in 2028. <sup>2</sup> The provision was not related to any recent changes in Australia's decarbonisation policies.</p>	<p>Percentage of total planned capital investment in non-carbon generation assets, transmission, distribution and retail operations:</p> <p><b>77%</b></p> <p>Also see Chart 4 on page 35.</p>
		<p>CLP regularly reviews its Climate Vision 2050 to ensure alignment with relevant policies in its operating markets.</p> <p>Capital investments in non-carbon assets for 2025 and the next five years represent resources allocated to decarbonise CLP's portfolio in line with its business plan and Climate Vision 2050 objectives.</p>	

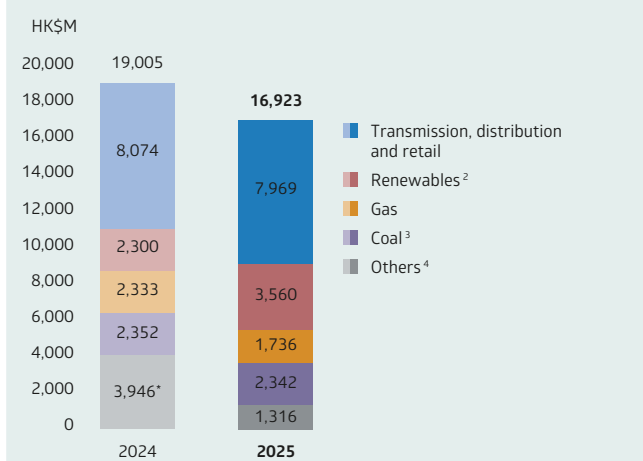
Transition risks	Relevance to CLP	Financial effects in 2025	Anticipated financial effects (2026-2030)
Stranded asset risks	As of 31 December 2025, coal-fired assets comprised 35% of CLP's equity generation and energy storage capacity.	A related impairment provision of HK\$608 million in respect of minority-owned coal-fired assets was recognised in 2025. <sup>3</sup>	Financial effects assessments involve significant uncertainty and the resulting quantitative information would offer limited utility for informed decision-making. <sup>4</sup>
Carbon pricing	As of 31 December 2025, 5% of CLP's equity generation and energy storage capacity was subject to carbon pricing.	CLP's minority-owned coal-fired assets on the Chinese Mainland are subject to carbon pricing exposure under China's national Emissions Trading Scheme. The risk from carbon pricing primarily affects the share of results of joint ventures if compliance costs arise.  EnergyAustralia's assets are currently not considered exposed to carbon pricing risk. At present, total Australian energy sector emissions remain well below the Safeguard Mechanism baseline. EnergyAustralia will continue to monitor developments including the Australian Government's scheduled 2026 review of the mechanism.  Scenario analysis indicates that carbon prices across CLP's markets could range from US\$53 to US\$250 per tonne in 2050. However, financial effects assessments involve significant uncertainty and the resulting quantitative information would offer limited utility for informed decision-making. <sup>4</sup>	
Potential exposure to litigation	All CLP markets	Financial costs, including those associated with legal claims over climate-related issues involve significant uncertainty, particularly as any legal action may incur substantial financial losses and costs in defending unsubstantiated claims, as well as reputational harm.  Consequently, any quantitative estimate of such costs offers limited utility for informed decision-making. <sup>4</sup>	
Stigmatisation of the carbon intensive sectors	All CLP markets	Reputational damage due to fossil fuel operations may result in potential financial impact including higher operating costs related to compliance and stakeholder engagement. In addition, these risks could affect future revenue streams and asset valuations. However, financial effects assessments involve significant uncertainty and the resulting quantitative information would offer limited utility for informed decision-making. <sup>4</sup>	

Notes:

- 1 At this time, in regard to the climate-related transition risks, no significant risk of a material adjustment to the carrying amounts of assets and liabilities in 2026 has been identified.
- 2 Further information is provided in Items Affecting Comparability on page 22.
- 3 Further information is provided in Items Affecting Comparability on page 22 and Note 14 to the Financial Statements on page 208.
- 4 The financial effects relief under The Stock Exchange of Hong Kong Limited's ESG Reporting Code has been applied.

To meet the rising demand for low-carbon energy, the Group's capital investment in renewable energy reached HK\$3,560 million in 2025, representing a 55% year-on-year increase. During the year, more wind and solar projects were commissioned on the Chinese Mainland, lifting the Group's renewable energy capacity to 4,953MW at the end of December, a year-on-year increase of 12%. This represents 21% of CLP's generation and energy storage portfolio. Energy storage is expected to account for a higher proportion of CLP's asset portfolio as new battery energy storage system (BESS) and pumped hydro projects are planned across Hong Kong, the Chinese Mainland and Australia. The Group also provides a growing range of energy services and solutions to enhance energy efficiency for customers, and supports the electrification of transport and other sectors of the economy.

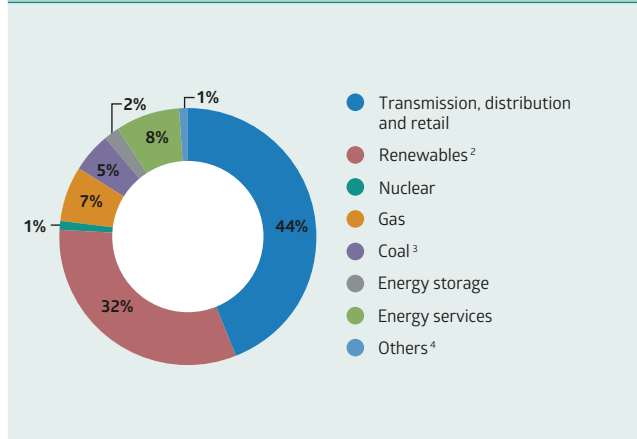
**Chart 3: Capital Investment Incurred by Asset Type<sup>1</sup>**



Notes:

- \* Includes acquisition of CLP Headquarters in Kai Tak.
- 1 On an accrual basis and includes: i) capital expenditure in fixed assets, right-of-use assets, investment property and intangible assets; ii) changes in investments and advances to joint ventures and associates; and iii) acquisitions of assets and / or businesses.
- 2 Renewables include wind, solar, hydro and waste-to-energy. In 2025, the capital investments allocated to these renewable segments were HK\$3,066 million for wind, HK\$385 million for solar, HK\$39 million for hydro, and HK\$70 million for waste-to-energy.
- 3 The capital investment in coal assets is for maintenance, upgrades and efficiency improvements only and not for the development of new coal-fired power plants.
- 4 Includes oil, energy storage, energy services, other businesses outside of power generation, transmission, distribution and retail, as well as corporate or enterprise items.

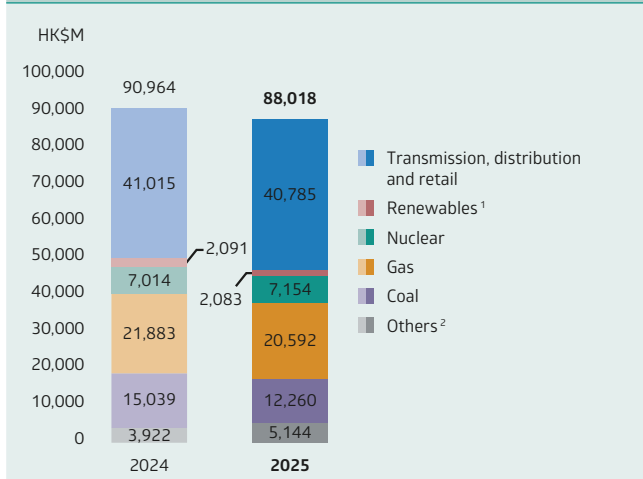
**Chart 4: Total Planned Capital Investment for 2026-2030 by Asset Type<sup>1</sup>**



Notes:

- 1 Capital investment includes: i) capital expenditure in fixed assets, right-of-use assets, investment property and intangible assets; ii) changes in investments and advances to joint ventures and associates; and iii) acquisitions of assets and / or businesses. Any minor discrepancy in total is due to rounding of percentages.
- 2 Renewables include wind, solar, hydro and waste-to-energy. Over the five-year period, the percentages of total planned capital investment allocated to these renewable segments are 18.1% for wind, 13.4% for solar, 0.1% for hydro, and 0.1% for waste-to-energy.
- 3 The planned capital investment in coal assets is for maintenance, upgrades and efficiency improvements only and will not be used for the development of new coal-fired power plants.
- 4 Includes oil, other businesses outside of power generation, transmission, distribution and retail, as well as corporate or enterprise items.

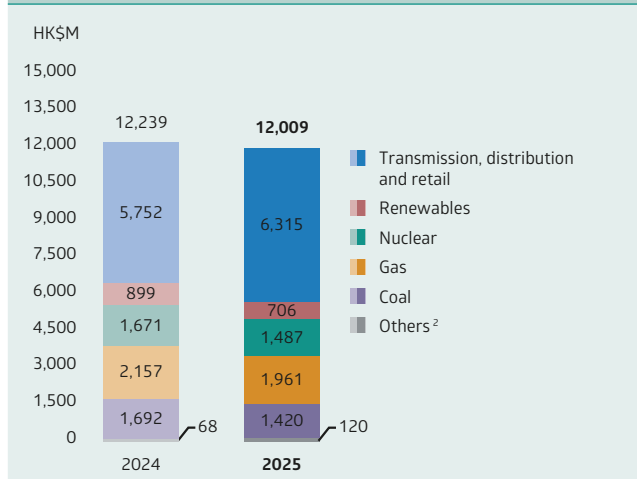
**Chart 5: Revenue by Asset Type**



Notes:

- 1 Renewables include wind, solar, hydro and waste-to-energy. In 2025, the revenue from these renewable segments was HK\$938 million for wind, HK\$606 million for solar, HK\$499 million for hydro, and HK\$40 million for waste-to-energy.
- 2 Includes oil, energy storage, energy services, other businesses outside of power generation, transmission, distribution and retail, as well as corporate or enterprise items.

**Chart 6: Operating Earnings by Asset Type<sup>1</sup>**



Notes:

- 1 Before fair value movements and unallocated expenses.
- 2 Includes oil, energy storage, energy services, other businesses outside of power generation, transmission, distribution and retail, as well as corporate or enterprise items.

## Net-Zero Transition

When evaluating the viability of investment projects that may result in additional GHG emissions, CLP applies a shadow carbon price to assess the potential cost exposure should carbon pricing become applicable to the project. The internal carbon-price range used is aligned with relevant international and local carbon-pricing benchmarks.

The current and anticipated financial effects of climate-related transition opportunities are summarised in Table 2. Climate-related scenario analysis has informed CLP's identification of these opportunities.

**Table 2: Financial effects of climate-related transition opportunities<sup>1</sup>**

Transition opportunities	Relevance to CLP	Financial effects		
		Financial effects in 2025	Anticipated financial effects (2026-2030)	Details
Increased demand in low-carbon electricity	All CLP markets	Revenue from non-carbon generation assets, transmission, distribution and retail operations: <b>HK\$49,982 million</b> Also see Chart 5 on page 35.	Percentage of total planned capital investment in non-carbon generation assets, transmission, distribution and retail operations: <b>77%</b> Also see Chart 4 on page 35.	Revenue generated by assets and services related to the respective transition opportunities contributes to the associated financial effects.  Other financial effects may include changes in capital expenditure and operating expenses.  Due to commercial sensitivity, only the percentages of total planned capital investment over the next five years, rather than absolute figures, are disclosed. <sup>2</sup>
Demand for energy storage	All CLP markets	Revenue from energy storage, energy services, oil, other businesses outside of power generation, transmission, distribution and retail, as well as corporate or enterprise items:	Percentage of total planned capital investment in energy storage: <b>2%</b>	
Demand for electrification of the transportation and industrial sectors	Hong Kong and Australia		Percentage of total planned capital investment in energy services: <b>8%</b>	
Energy services and energy efficiency offerings	All CLP markets	<b>HK\$5,144 million</b>		

Notes:

- At this time, in regard to the climate-related transition opportunities, no significant risk of a material adjustment to the carrying amounts of assets and liabilities in 2026 has been identified.
- The commercial sensitivity relief under the ESG Reporting Code has been applied.

## Managing climate-related physical risks

To address increasing climate-related physical risks, CLP is implementing comprehensive adaptation measures including flood protection for power stations and substations to maintain reliable operations. In addition, businesses across the Group conduct regular assessments on their exposure to extreme weather risks, enabling them to review and update the adaptation measures in their operations.

To assess the financial impact of climate-related physical risks, CLP uses the high-emissions scenario outlined in [Climate Vision 2050](#). Under this scenario, physical risks are significant, with average global temperatures projected to rise by over 4°C above pre-industrial levels by 2100.

The assessment methodology has been aligned across all hazard categories. Both current and anticipated financial effects include operating expenses and capital expenditure for climate adaptation measures relating to financially material generation and energy storage assets that are assessed as having a “high” or above physical risk exposure. Current effects also capture any financial impacts from physical hazards that occurred during the reporting year and have been recognised in the financial statements. Anticipated financial effects are mainly based on the latest business plan for 2026-2030 and do not include estimates of potential losses from climate-related risks. Further details are provided in Table 3.

**Table 3: Financial effects of climate-related physical risks<sup>1</sup>**

Physical hazards	Percentage of assets with risk exposure level “high” or above <sup>2</sup>	Percentage of financially material assets with risk exposure level “high” or above <sup>2,3</sup>	Financial effects in 2025	Anticipated financial effects (2026-2030)
Extreme wind and storms	35%	33%	<b>HK\$85 million<sup>4</sup></b> CLP incurs capital expenditure and operating expenses for measures including reinforcing energy infrastructure and managing vegetation near overhead power lines.	<b>HK\$284 million<sup>5</sup></b>
Flooding	27%	22%	In 2025, CLP incurred capital expenditure and operating expenses totalling HK\$11 million <sup>4</sup> to implement a range of measures to strengthen flood prevention, including enhancements to facilities inspection practices, drainage system cleaning, and the completion of a programme to install over 200 flood gates or protective devices at higher-risk substations in Hong Kong.	Flooding enhancement measures are part of operational and maintenance activities and the anticipated financial effects are not separately identifiable. <sup>5,6</sup>
Water stress and drought	32%	7%	Lack of cooling water may reduce CLP’s generation output, which could affect its revenue.  For EnergyAustralia, secure water access is critical to the Yallourn Mine Rehabilitation Plan. In relation to the anticipated financial effects, land remediation provisions may increase depending on several factors, including possible drought conditions, competing local water demands, the time required to fill the mine void, and the cost of purchasing water. Due to the significant uncertainty associated with these considerations, the financial effect has not been quantified. <sup>6</sup> For further information, please refer to the <a href="#">EnergyAustralia Sustainability Report 2025</a> .	

Physical hazards	Percentage of assets with risk exposure level "high" or above <sup>2</sup>	Percentage of financially material assets with risk exposure level "high" or above <sup>2,3</sup>	Financial effects in 2025	Anticipated financial effects (2026-2030)
Changes in wind speed	10%	0%	The Group's assessment to date cannot statistically or reliably attribute recorded changes in wind speed at its wind farms to climate change rather than natural variability, and no material financial effects have been identified. The Group will continue to monitor the performance of its portfolios and conduct periodic studies to strengthen its understanding of any changes in wind resource and their possible connection to climate-related factors.	Quantitative information on the anticipated financial effects is not provided due to the high level of uncertainties in assessing impacts across different geographic locations, as well as the inherent complexity in understanding the relationship between changes in wind speed and climate change.  Nevertheless, this risk could still have a potential impact on CLP's earnings over time. <sup>6</sup>
Wildfires	6%	0%	Given CLP's limited exposure to this risk, no material financial effects have been identified.	
Extreme heat	0%	0%	<b>HK\$3 million <sup>4</sup></b>  As of the end of 2025, no CLP's generation and energy storage asset was assessed as being exposed to high risk of extreme heat. However, as climate patterns change, CLP's exposure to such risk is estimated to rise significantly over the long term.  To manage this risk, CLP incurs costs for measures including regular inspection, maintenance and upgrades of cooling systems in generation assets, as well as procurement of additional backup equipment to enhance emergency response capabilities.	<b>HK\$35 million <sup>5</sup></b>
Rainfall-induced landslide	0%	0%	Given CLP's limited exposure to this risk, no material financial effects have been identified.	

Notes:

- At this time, in regard to the climate-related physical risks, no significant risk of a material adjustment to the carrying amounts of assets and liabilities in 2026 has been identified.
- Assets as a proportion of CLP's equity generation and energy storage capacity in MW as of the end of 2025.
- CLP defines financially material assets based on their existing physical risk exposure combined with operating earnings. These assets are then shortlisted as the most critical ones requiring detailed assessment for each climate hazard.
- Current financial effects include operating expenses and capital expenditure on climate adaptation measures for financially material generation and energy storage assets with a risk exposure level of "high" or above, incurred during the reporting year. They also include any financial impacts from physical hazards that have been recorded in the financial statements.
- Anticipated financial effects include aggregated operating expenses and capital expenditure for climate adaptation measures planned for 2026-2030.
- The financial effects relief under the ESG Reporting Code has been applied.

## Enhancing environmental performance

In addition to decarbonisation, CLP has been strengthening efforts to cut air emissions and improve water and waste management. The Group reduced emissions of nitrogen oxides (NOx), sulphur dioxide (SO<sub>2</sub>) and particulate matter (PM) in 2025 by 12%, 0.2% and 14% respectively from 2024 due to diversification of fuel mix and improved air emissions controls for its generation assets across Hong Kong, the Chinese Mainland and Australia. CLP achieved its 2025 air emissions reduction targets and will focus on further performance improvements to meet the Group's more stringent 2030 targets.

CLP also fulfilled its 2025 target for cutting freshwater consumption, which dropped 8% from a year earlier as a result of more efficient water use and lower utilisation of coal-fired power plants. Waste products generated decreased 17% year-on-year, as coal-fired plant utilisation dropped and the Group implemented measures based on circular economy principles, such as extending the lifespan of wind farm equipment on the Chinese Mainland. CLP's key environmental performance and targets are summarised in Table 4.

In 2025, the Group recorded six environmental-related regulatory non-compliance incidents. None of the cases resulted in fines or prosecutions.

**Table 4: Environmental performance and targets**

	2025 performance (year-on-year change)	2025 performance versus target		2030 target*
		Reduction vs 2021*	2025 target*	
NOx emission	-12%	-35%	-20% to -30%	-50%
SO <sub>2</sub> emission	-0.2%	-19%	-15% to -20%	-55%
PM emission	-14%	-28%	-10% to -15%	-90%
Freshwater consumption	-8%	-55%	-45% to -55%	-85%
Waste products generated	-17%	-74%	-65%	-70%

\* Compared with levels in 2021

**i** The Business Performance and Outlook chapter on page 50 provides more information on the following:

1. CLP's investments in renewable energy, BESS and other non-carbon energy infrastructure
2. Energy efficiency solutions, VPPs and other low-carbon energy services provided by CLP's businesses
3. Apraava Energy's agreement to sell coal-fired power station
4. Climate adaptation measures and planning by CLP's businesses
5. New air emission requirements in Hong Kong

Further information and metrics related to nature- and biodiversity-related management, including policies on emissions and use of resources, may be found in the [2025 Sustainability Report](#). Key data is also available in Five-year Summary: CLP Group Economic and Financial Data on page 254 and in Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data on page 256 of the 2025 Annual Report.

# Energy Growth Opportunities

With electrification and digitalisation accelerating demand for reliable, sustainable and affordable electricity, the Group is well-positioned to capture growth opportunities by investing in lower-carbon energy infrastructure and delivering decarbonisation solutions to customers. This section covers the following eight risks and five opportunities deemed financially material in the annual materiality assessment as CLP pursues energy growth opportunities. Some of the risks and opportunities are climate-related, and they are indicated by the following symbols:



Climate-related  
transition risk



Climate-related  
transition opportunity

## Risks

### Short-term

- ❖ Evolving regulatory frameworks such as electricity system operations and tariff structures could affect CLP's competitiveness and investment planning across its key markets.
- ❖ With energy affordability being a growing focus for Hong Kong customers and the Government, CLP is expected to continue delivering reliable, sustainable energy at a reasonable cost.
- ❖ Unsubstantiated claims on sustainability or failure to meet sustainability commitments may result in potential fines, lawsuits and reputational damage.
- ❖ Consumer energy resource and distributed energy resource technologies including solar, batteries and smart appliances may not be interoperable across CLP's markets, potentially reducing synergies for the Group's businesses.

### Medium-term

- ❖ Potential new players entering the energy sector with strong financial resources and low-carbon energy technologies may reduce CLP's market share and competitiveness in markets outside Hong Kong.
- ❖ Changes in Australian energy and decarbonisation policies could affect the financial performance of EnergyAustralia. 🌐
- ❖ Potential changes in requirements on GHG and other air emissions may increase compliance costs. 🌐

### Long-term

- ❖ Climate policy developments may require CLP to accelerate its coal-fired power plant closures, resulting in higher transition costs ahead of schedule. 🌐

## Opportunities

### Short-term

- ◆ Economic affluence in Asia and digital transformation to continue driving demand for low-carbon energy from consumers and industrial sectors such as data centres and electric transport. This creates opportunities for providers of end-to-end solutions including rooftop solar, home batteries and EV charging.

### Medium-term

- ◆ Access to low-cost equipment from Chinese suppliers may give CLP an advantage, especially when expanding in Asian markets as some US companies reduce their exposure in the region due to trade policy uncertainty.
- ◆ Electrification needs to quadruple by 2050 globally, which offers CLP opportunities to expand into new business lines and establish joint ventures in adjacent sectors, such as Energy-as-a-Service and transport, reducing emissions. 🔄
- ◆ Growing electrification and the development of a complete EV ecosystem can drive EV adoption and generate potential business opportunities. In particular, CLP can benefit from its access to competitive EV technologies from Chinese partners. 🔄

### Long-term

- ◆ Demographic change, urbanisation, the rapid electrification of transport and data centres create opportunities for CLP to expand its customer base and capture new sources of demand across core and emerging markets.

Other climate-related risks and opportunities are covered in Net-Zero Transition on page 31 and Operational and Supply Chain Resilience on page 49.

## Maintaining agility in dynamic policy environment

The 30<sup>th</sup> United Nations Climate Change Conference (COP30) in Brazil concluded without further commitments to phase out fossil fuels, underscoring ongoing uncertainty on global climate policies. By contrast, China continued to strengthen its climate actions with the Central Government unveiling new commitments for further carbon reduction.

At the same time, policymakers in China and Australia introduced major energy market reforms designed to promote competition. In response to the dynamic policy and competitive landscape, CLP China and EnergyAustralia focused on enhancing operational efficiencies and pursuing investment opportunities with good returns. The Group remains positive about the long-term growth prospects in both markets.

## Meeting energy demand in Asia Pacific

Asia Pacific is home to some of the world's fastest-growing electricity markets including China, India and countries in Southeast Asia. The strong pace of growth is expected

to be sustained by data centre and electric transport developments, and CLP is enhancing its capabilities to meet demand for low-carbon energy in the region. In 2025, CLP increased its investments in growth projects including renewable energy and BESS. Growth capital expenditure, intended for the Group's business expansion and excluding investments under the Scheme of Control Agreement in Hong Kong, increased 32.6% year-on-year to HK\$3.19 billion.

In addition to its established markets, the Group is exploring potential low-carbon investments in the Taiwan Region and Southeast Asian markets including Vietnam and Laos. CLP is well-positioned to capture these opportunities as its longstanding supply chain partnerships in the renewable energy sectors on the Chinese Mainland are expected to help lower development costs.

To expand current operations and enter potential new markets, CLP's regional businesses could also leverage collaboration and knowledge sharing to strengthen capabilities, particularly in renewable energy, grid operations and energy storage.

Table 1 provides key metrics tracking CLP's energy services and operations in its current markets.

**Table 1: Key metrics on energy services and operations <sup>1</sup>**

	2025	2024
<b>Number of customer accounts</b> (CLP Power, thousands)	<b>2,895</b>	2,830
– Residential	<b>2,528</b>	2,474
– Commercial	<b>228</b>	218
– Infrastructure and Public Services	<b>122</b>	121
– Manufacturing	<b>17</b>	17
<b>Number of customer accounts</b> (EnergyAustralia, thousands)	<b>2,300</b>	2,382
– Mass Market	<b>2,296</b>	2,378
– Commercial & Industrial	<b>4</b>	4
<b>Total electricity delivered</b> (CLP Power, GWh)	<b>35,760</b>	36,125
– Residential	<b>9,966</b>	10,204
– Commercial	<b>13,824</b>	13,882
– Infrastructure and Public Services	<b>10,430</b>	10,466
– Manufacturing	<b>1,540</b>	1,573
<b>Total electricity sales volume</b> (EnergyAustralia, TWh)	<b>12.9</b>	13.7
– Mass Market	<b>8.5</b>	8.9
– Commercial & Industrial	<b>4.4</b>	4.9
<b>Total gas sales volume</b> (EnergyAustralia, PJ)	<b>28.1</b>	30.2
– Mass Market	<b>27.5</b>	28.6
– Commercial & Industrial	<b>0.6</b>	1.6
<b>Length of transmission and distribution lines</b> (km)		
– CLP Power	<b>17,358</b>	17,123
– Apraava Energy	<b>494</b>	494
<b>Number of customers connected to smart meters since 2018</b> (CLP Power, millions)	<b>2.88</b>	2.68
<b>Energy sent out <sup>2</sup></b> (CLP Group, GWh)	<b>77,268</b>	79,760
– Coal	<b>27,993</b>	32,234
– Gas	<b>20,092</b>	19,847
– Nuclear	<b>21,160</b>	19,878
– Wind	<b>4,495</b>	4,482
– Hydro	<b>1,862</b>	1,776
– Solar	<b>1,573</b>	1,491
– Waste-to-energy	<b>60</b>	44
– Energy storage	<b>33</b>	8
– Others	<b>1</b>	1

Notes:

1 Minor discrepancies may result from rounding.

2 On equity plus long-term capacity and energy purchase basis.

## Strengthening EV charging ecosystem

Capitalising on opportunities from rising EV charging demand from private and commercial vehicles, the Group deepened partnerships across the value chain from policymakers and vehicle manufacturers to battery providers and EV charge point operators. The development of a strong industry ecosystem is key to supporting further EV adoption. In particular, availability of fast-charging facilities is crucial for more commercial vehicle users to switch to electric.

While there is potential for increased knowledge sharing between CLP's businesses in Hong Kong and Australia on electric transport, synergies are currently limited given the two markets are at different stages of maturity in EV charging development.

## Supporting investments with strong financial foundations

CLP's investment activities continued to be underpinned by the Group's strong and resilient financial position. The Group maintained a robust liquidity position, with undrawn bank facilities of HK\$25.5 billion and bank balances of HK\$3.9 billion as at the end of 2025. The strong liquidity is expected to be sustained in 2026.

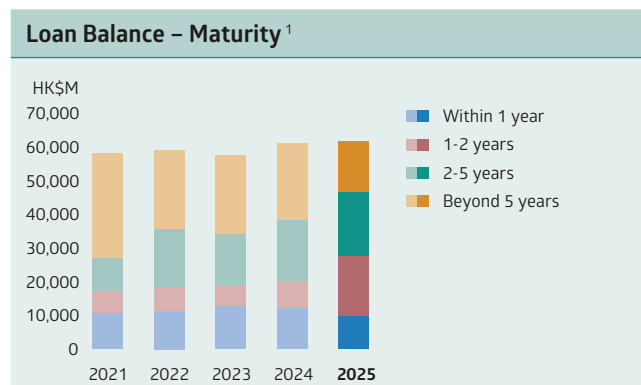
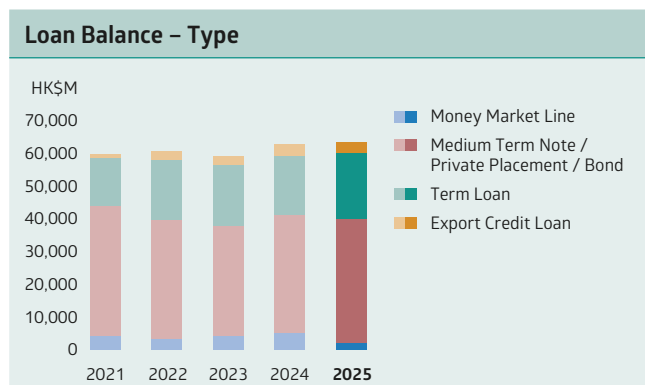
Amid ongoing market volatility, CLP's businesses capitalised on windows of more favourable market conditions to secure cost-effective financing and refinance higher-cost facilities. This disciplined approach, supported by efforts to preserve strong investment-grade credit ratings and diversify funding sources, enabled the Group to achieve an overall reduction of 17.5% in net finance costs in 2025, despite interest rates remaining elevated for longer than anticipated.

CLP maintains a disciplined and proactive approach to managing financial risks. The Group conducts ongoing monitoring and assessment of its liquidity profile, ensuring timely replenishment of funding resources and the preservation of a robust capital structure. Under CLP's well-established treasury risk management framework, approved derivative instruments are employed to hedge interest rate and foreign exchange exposures, thereby mitigating market-related risks. To ensure strong control over counterparty credit risk, all derivative transactions and deposits are executed exclusively with financial institutions that meet CLP's investment-grade credit standards.

Debt Profile as of 31 December 2025					Other
	CLP Holdings HK\$M	CLP Power <sup>1</sup> HK\$M	CAPCO HK\$M	Subsidiaries HK\$M	CLP Group HK\$M
Available Facility <sup>2</sup>	3,950	33,797	24,949	24,640	87,336
Bank Loans and Other Borrowings	-	26,646	23,511	11,672	61,829
Undrawn Facility	3,950	7,151	1,438	12,968	25,507

Notes:

- 1 The Bank Loans and Other Borrowings amount excludes perpetual capital securities.
- 2 For the Medium Term Note programmes, only the amounts of the bonds issued as at 31 December 2025 were included in the total amount of Available Facility. The Available Facility for EnergyAustralia excluded a facility set aside for guarantees.



Note:

- 1 The maturity of revolving loans is in accordance with the maturity dates of the respective facilities rather than the current loan drawdown tenors.

## Energy Growth Opportunities

In May, Standard & Poor's (S&P's) affirmed the credit ratings of CLP Holdings, CLP Power and CAPCO at A, A+ and AA-, respectively, all with stable outlooks. In August, Moody's affirmed the A2 credit rating of CLP Holdings, and the A1 ratings for both CLP Power and CAPCO, all with stable outlooks. Moody's also assigned a positive outlook on the Baa2 credit rating of EnergyAustralia. At the time of the report's publication, the credit ratings of the Group's major businesses were as follows:

	CLP Holdings		CLP Power		CAPCO		EnergyAustralia
	S&P's	Moody's	S&P's	Moody's	S&P's	Moody's	Moody's
Long-term rating	A	A2	A+	A1	AA-	A1	Baa2
Outlook	Stable	Stable	Stable	Stable	Stable	Stable	Positive
Short-term rating	A-1	P-1	A-1	P-1	A-1+	P-1	-



More information on [credit ratings](#) can be found on the Group's website.



More information about major financing activities in 2025 and debt profile can be found on pages 34 and 35 of the [2025 Annual Results Presentation of CLP Holdings](#).



Analyses of loan balance by types and bond funding by currencies can be found on the Financial Capital page in the [Investor Presentation Introductory Pack of CLP Holdings](#).

CLP's Climate Action Finance Framework (CAFF) continued to enable a growing volume of financing activities in support of the Group's decarbonisation effort. CLP will maintain close collaboration with financial market stakeholders on promoting the development of sustainable financial instruments, while continuing to align CAFF with latest advancements in relevant taxonomies. CLP Holdings has an NZ-2 score from Moody's Net Zero Assessment, representing the second-highest rating on the scale.



Information about [CLP Climate Action Finance Framework](#) can be found on the Group's website.



More information on the following topics is available in Business Performance and Outlook on page 50:

1. Climate and energy policy developments in China and Australia
2. CLP's investments in energy supply and infrastructure
3. Energy savings for CLP Power customers
4. Growth in energy demand from data centres and electric transport
5. CLP's latest initiatives on smart grid, electric transport and demand-side decarbonisation
6. Electricity tariffs in Hong Kong
7. Carbon credit litigation in Australia
8. Pilot project to blend hydrogen into natural gas for power generation in Hong Kong
9. New funding through CAFF and other financing channels in 2025

Further information, metrics and targets related to power supply reliability and energy efficiency are available in the [2025 Sustainability Report](#). Key metrics are also provided in Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data on page 256 of the 2025 Annual Report.

# Digital Innovation and Cybersecurity

**Building digital capabilities in AI, data analytics and cybersecurity is key to driving efficiency, enhancing customer experience and strengthening resilience across CLP's businesses. This section covers the following three risks and two opportunities deemed financially material to the Group's digital transformation as identified in the annual materiality assessment.**

## Risks

### Short-term

- ◆ Increasing vulnerability of smart grid and digital technologies to cyberattacks on critical infrastructure heightens CLP's exposure to operational disruptions, regulatory penalties, and reputational damage. A major cybersecurity incident or data breach could materially affect the Group's financial position and market confidence.
- ◆ Failure to implement effective governance will compromise the security and resilience of digital infrastructure and regulatory compliance.
- ◆ CLP's competitiveness may be affected if its digitalisation projects are not successfully implemented and do not deliver the targeted benefits.

## Opportunities

### Short-term

- ◆ AI and digital technologies enable CLP to enhance asset management and operational maintenance, improving the reliability and stability of power supply while realising cost efficiencies.
- ◆ Insights from electricity usage and operational data help CLP create innovative energy services for customers that support greater energy efficiency and emissions reduction.

## Accelerating digital transformation

Digitalisation continued to deliver further operational efficiencies for CLP and enable more reliable and innovative energy services in 2025. This was underscored by initiatives across the Group including distribution network optimisation in Hong Kong, centralised management of renewable energy operations on the Chinese Mainland and the growth of VPP services in Australia.

During the year, the initial phase of CLP's enterprise resource planning (ERP) system upgrade was completed. This optimised end-to-end business processes across the Group and enabled automation of work procedures. The second phase of the upgrade, to be completed in 2026, will further enhance customer services, strengthen power network asset management and support CLP's sustainability objectives.

In addition, the use of AI was accelerated with the Group deploying 24 new AI applications in 2025. They include tools and chatbots that support knowledge search, communication and training for customer service staff and analyse power station drawings to streamline engineering work. Many of these applications are enabled by a unified AI and data

platform that integrates key data across operations including power generation, transmission and distribution, and customer services in Hong Kong. As data volumes continue to increase, the platform helps improve cost efficiencies and drive faster development of new AI and data analytics applications to optimise CLP's operations.

## Supporting business priorities

The ongoing focus on AI and data analytics is a key part of CLP's 2025-2028 Digital Strategy, which aims to enhance technology capabilities in support of the Group's strategic priorities. Another focus area of the Strategy is developing a more digitalised workplace environment to enable CLP employees to integrate technologies and data to work better and smarter. In 2025, CLP rolled out a secured platform for employees in Hong Kong to access proven generative AI tools. New self-service chatbots powered by AI have also assisted employees on tasks including knowledge management and troubleshooting technology-related queries. As new technologies and upgrades continue to be implemented, the Strategy also aims to enhance the resilience of the Group's digital infrastructure against potential risks including cyber incidents and supply chain disruptions.

## Digital Innovation and Cybersecurity

As applications of AI increased, CLP also strengthened the governance of AI use. A set of AI Principles and an AI Policy were released for employees to adopt AI technologies in their work effectively and ethically, integrating appropriate human oversight to help minimise business risks.

### Enhancing energy services with digitalisation


Data-driven insights enabled CLP Power and EnergyAustralia to offer more flexible electricity tariffs for EV charging. Electricity customers with smart meters in Hong Kong can benefit from personalised energy-saving advice tailored to their consumption patterns. AI technologies are also supporting commercial and industrial customers in improving their energy management and reducing emissions from cooling systems.

To develop innovative energy solutions and services, the Group continued to partner with technology companies from around the world. Through the Free Electrons innovation programme, CLP's businesses worked with technology providers from Asia Pacific, the Americas and Europe in 2025 to pilot a range of applications including power network planning and asset condition monitoring. CLP also partnered with Chinese Mainland energy innovators on EV charging and renewable energy forecasting technologies through the Phoenix technology scouting programme.

### Strengthening cybersecurity protection

Cybersecurity is critical to CLP's business as an essential service provider. In 2025, the Group adopted more automated systems for cyber incident detection and response to further strengthen resilience as potential online threats continue to grow. CLP also introduced a new approach to integrate cybersecurity measures in the planning of new business processes and projects, positioning security as everyone's responsibility within a project team. To raise cybersecurity awareness and enable more effective response, employees are provided with regular training and opportunities to participate in phishing simulations.

In 2025, the Group did not have any notifiable non-compliance related to relevant physical or cybersecurity standards or regulations.

 More information on the following topics is available in CEO's Strategic Review on page 12 and Business Performance and Outlook on page 50:

1. The Group's 2025-2028 Digital Strategy
2. Distribution Network Operation Optimisation project
3. Grid-V system enhancing CLP Power's asset management and power reliability
4. Regional centralised control centres for renewable energy operations
5. AI applications for enhancing power system operations
6. Off-peak EV charging, VPP and other innovative energy services
7. New cybersecurity legislation in Hong Kong

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Further information and metrics related to digital innovation and cybersecurity, including policies on customer privacy, are available in the [2025 Sustainability Report](#).

# Future-Ready Workforce

CLP remains steadfast in its commitment to build a future-ready workforce as decarbonisation, electrification and digitalisation continue to reshape the energy industry. In addition to ongoing people investments to uplift capabilities and drive performance and growth, fostering an agile and inclusive culture is a key focus for the Group to drive competitiveness and enable everyone who works at CLP to thrive in change. These efforts help mitigate the following three financially material risks identified in the annual materiality assessment.

## Risks

### Short-term

- ◆ Failure to attract and develop talent into CLP's workforce will hinder its ability to execute decarbonisation and digitalisation goals, and the realisation of non-SoC opportunities in Hong Kong and other markets.

### Medium-term

- ◆ CLP's culture of operational excellence and process compliance drives reliability, however may reduce organisational agility and responsiveness to industry megatrends and market dynamics. This may potentially affect the Group's competitiveness and capacity to capture emerging opportunities.
- ◆ To successfully implement new technologies, employees need to adapt to digitalised ways of working.

## Attracting and retaining talent

To meet evolving business needs and opportunities, CLP continued to focus on attracting and retaining talented people in 2025. A steady pace of hiring was maintained and the Group recruited over 600 people across Hong Kong and the Chinese Mainland in 2025 to strengthen capabilities in commercial functions, engineering, digital technologies and customer service. Voluntary turnover moderated despite intense competition for talent.

At the end of 2025, CLP had 8,539 full-time and part-time employees serving its Hong Kong, Chinese Mainland and Australia businesses, compared with 8,415 a year earlier. This included 6,272 employees in CLP's core markets of Hong Kong and Chinese Mainland, compared with 6,160 at the end of 2024. Total remuneration for the year ended 31 December 2025 was HK\$7,761 million, compared with HK\$7,081 million in 2024, including retirement benefit costs of HK\$736 million, compared with HK\$696 million the previous year.

In addition to experienced professionals, CLP continued to recruit students across different educational levels. Over 30 engineering graduates from Hong Kong, Mainland and overseas universities joined the Group's flagship Graduate Trainee Programme in 2025 to gain experience across CLP's Hong Kong and Chinese Mainland businesses. The programme's curriculum is regularly updated to reflect advancements in low-carbon technologies and digitalisation, and a Digital stream was launched in 2025. The launch of the Engineering Cadet Programme in July provided over 20 cadets with structured training and job rotations in electricity operations, while the Technician Trainee

Programme was expanded to offer enhanced on-the-job learning for more participants. A strategic cooperation agreement on engineering internships established CLP as Tsinghua University's first Undergraduate Practice Training Base in Hong Kong, strengthening efforts to nurture talent for the energy sector.

To nurture the next generation of leaders, the updated CLP Executive Programme was launched to accelerate the growth of high-potential managers and professionals, and prepare participants for future senior leadership roles.

CLP continued to encourage internal mobility for colleagues and develop their understanding of the core Hong Kong and Chinese Mainland markets through internal transfer opportunities.

## Investing in training and development to upskill and reskill our workforce

CLP continued to invest in employee training and development to uplift organisational capabilities, and support improved work performance and growth. Colleagues received approximately 52 hours of internal and external training and development each on average in 2025. This included trainings related to implementation of CLP's updated ERP system. Time spent on upskilling (enhancing existing skills) and reskilling (training to enable transition to different roles) made up over 17% of training for employees in 2025, compared to 15% a year earlier.

Training programmes in technical, business, digital technology and leadership skills were enhanced. To encourage colleagues to take charge of their growth, CLP launched an e-learning

## Future-Ready Workforce

platform for training on a wide-range of topics including technology, management and leadership, with over 2,000 employees participating. Building AI skills was a key focus. In Hong Kong, over 500 colleagues completed CLP's AI Challenge upskilling programme, applying practical AI use cases to their work.

Ongoing partnerships with leading educational institutions including Tsinghua School of Economics and Management in Beijing and Canada's Ivey Business School provided training on national affairs, business leadership and management for high-potential employees.

### Employee Training

	Average Training Hours per Employee	% Trained
<b>By Region</b>		
Hong Kong	63.3	99.5
Chinese Mainland	76.3	100
Australia	16.2	97.3
Group Total	51.9	99.0
<b>By Gender</b>		
Male	61.1	99.2
Female	26.5	98.3
<b>By Professional Category</b>		
Managerial	22.7	97.1
Professional	36.1	98.9
General and Technical	74.0	99.3

## Building an agile and inclusive organisation and culture


To remain agile in the face of dynamic changes in the energy sector, the Group's businesses continued to evolve their operating models to align with market needs and capture new opportunities. Investment governance and reporting processes were streamlined further to support faster decision-making and innovation.

Workshops were conducted for managers in Hong Kong and the Chinese Mainland to integrate the Group's core values of Care, Excellence and Responsibility in their teams. Employee recognition in Hong Kong was strengthened with a digitally enabled peer-to-peer recognition programme, "GiveMeFive".

Results from an internal survey conducted across the Group in 2025 indicated uplifts in employee engagement and an increase in workforce perceptions of empowerment and organisation agility.

CLP recognises that good business outcomes are facilitated by an inclusive, diverse workplace in which all colleagues feel welcomed and respected. To promote increased awareness, the Group's refreshed policy on inclusion and diversity "Stronger Together" was launched in June 2025. Workshops and activities were held in October, generating strong interest with more than 3,000 attendances recorded at the events.

To drive cost competitiveness, CLP continued to promote more digitalised ways of working through a combination of technology adoption, process transformation and cultural change. More details can be found in Digital Innovation and Cybersecurity on page 45.

 More information on organisational capability development and workplace digitalisation is available in CEO's Strategic Review on page 12.

Further information on major human resources and pay issues is available in the Human Resources & Remuneration Committee Report on page 128.

More information and metrics on workforce development, including CLP's Value Framework and Group Labour Standards, are provided in the [2025 Sustainability Report](#). Key metrics are also available in Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data on page 256 of the 2025 Annual Report.

# Operational and Supply Chain Resilience


Maintaining resilient operations and supply chains is crucial to CLP's ability to deliver reliable energy and technology innovation. This section covers the following three financially material risks identified in CLP's annual materiality assessment, including a climate-related transition risk (indicated by  below) that could arise without effective operations and supply chain management.

## Risks

### Short-term

- ◆ Global geopolitical volatility may affect fossil fuel supply, and result in potentially higher energy costs for customers.
- ◆ While CLP is a regional business, its strong presence in the Hong Kong and Chinese Mainland markets may create complications for its operations in other markets amid geopolitical tension.

### Medium-term

- ◆ Geopolitical developments may disrupt the global supply of critical minerals for low-carbon energy (e.g. cobalt, lithium, nickel) and advanced energy and digital technologies. Any major disruption could potentially affect BESS and renewable energy developers. 

Other climate-related risks and opportunities are covered in Net-Zero Transition on page 31 and Energy Growth Opportunities on page 40.

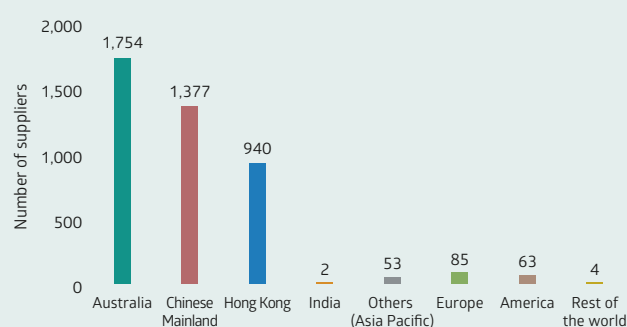
## Strengthening supply chain resilience


To ensure reliable and cost-effective access to fuels, materials and technologies amid a volatile global trade and geopolitical environment, CLP continued to strengthen supply chain management during 2025. Key measures included:

- ◆ Reduced over-concentration risks for key products and technologies by exploring alternative sources of high-quality products and services from new suppliers.
- ◆ Prioritised sourcing opportunities from nearby suppliers to mitigate potential geopolitical risks on long-haul transportation of goods.
- ◆ Explored the use of standardised product specifications to broaden potential supplier base.
- ◆ Incorporated sustainability risk assessment into supplier evaluation process, with reference to CLP's Supplier Code of Conduct.
- ◆ Reviewed contracts with suppliers and negotiated favourable commercial terms to optimise cost.
- ◆ As part of the Group's ERP system upgrade, the efficiency and transparency of procurement processes including supplier registration, contracting and payments were enhanced. More information on the ERP platform is available in Digital Innovation and Cybersecurity on page 45.

The measures further enhanced CLP's supply chain resilience and helped mitigate risks of potential disruption to CLP's operations and investments due to global uncertainties.

## Distribution of CLP's Suppliers by Region



 More information on the following topics is available in CEO's Strategic Review on page 12 and Business Performance and Outlook on page 50:

1. Power supply reliability in Hong Kong
2. Construction and delivery of low-carbon energy projects across Hong Kong, the Chinese Mainland, Australia and India
3. CLP's fuel costs in Hong Kong
4. Apraava Energy's view on improving relations between India and China

Further information and metrics related to operational and supply chain resilience, including policies on supply chain management, are available in the [2025 Sustainability Report](#). Key metrics are also provided in Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data on page 256 of the 2025 Annual Report.