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We aim to create long-term, sustainable value for our many stakeholders.

CLP's sustainable approach to business aims to deliver long-term value for its many stakeholders. This chapter is organised into sections titled **Capital Providers, Customers, Our People, Partners** and **Community** and discusses the outcomes of CLP's management of the five financially material topics to stakeholders. Previous annual reports used the Capitals framework to report on CLP's use of resources in the value creation process. This year's Annual Report, while keeping to the same value creation process, has adopted a stakeholder-centric approach to highlight the value created by CLP through the lens of stakeholders.

Five financially material topics for CLP in 2022



Shaping and executing the transition to net zero



Bolstering energy security and reliability



Pursuing energy growth opportunities in our core markets



Building an agile and innovative workforce



Reinforcing resilience in a changing operating environment

The five financially material topics that create or erode the Group's enterprise value were determined following a comprehensive materiality assessment in 2022, which considered a wide range of factors including CLP's strategic priorities and megatrends affecting its business. The table below will help readers more easily find specific information in relevant sections of the Stakeholders chapter.

Financially material topics and related sub-topics	Where to go for more information
1. Shaping and executing the transition to net zero:	
Acting as a trusted partner in the clean energy transition	> Capital Providers (page 69) Partners (page 88) Community (page 92)
Investing in clean electricity infrastructure	> Capital Providers (page 69) Partners (page 88)
Responding to evolving regulatory landscapes	> Partners (page 88)
2. Bolstering energy security and reliability:	
Providing customers with reliable and reasonably priced energy	> Customers (page 77)
Navigating geopolitical instability	> Customers (page 77)
3. Pursuing energy growth opportunities in our core markets:	
Creating new earnings streams as other sectors electrify	> Capital Providers (page 69) Partners (page 88)
Deepening CLP's value proposition with the right partners	> Capital Providers (page 69) Partners (page 88)
Deploying customer-facing energy solutions	> Partners (page 88)
Developing Energy-as-a-Service business models	> Partners (page 88)
4. Building an agile and innovative workforce:	
Attracting and retaining future talent	> Our People (page 82)
Enhancing technical and digital capabilities	> Our People (page 82)
Promoting workplace safety and wellbeing	> Our People (page 82)
5. Reinforcing resilience in a changing operating environment:	
Building resilience in the face of climate change and an evolving business environment	> Customers (page 77) Community (page 92)
Reinforcing cyber resilience and data protection	> Customers (page 77)

Please refer to the Sustainability as Our Business Strategy chapter (page 22) for more information about the materiality assessment. Detailed coverage of material topics impacting people, the environment and the economy – known as impact material topics – can be found in CLP's [Sustainability Report](#).

Material Topics



Shaping and executing the transition to net zero



Pursuing energy growth opportunities in our core markets

CLP aims to be **the trusted partner in the clean energy transition** for capital providers including shareholders, bond investors and financial institutions by **investing in clean electricity infrastructure** and sustainable energy business models to decarbonise its business in Asia Pacific. The Group finances its decarbonisation through sustainable, diversified and cost-effective funding sources. As the transition to a low-carbon economy gathers pace, CLP is diversifying its services by **developing Energy-as-a-Service business models** to support customers' needs, **creating new earnings streams as other sectors electrify**. Key initiatives covered in this section include:

- Divestment of a majority stake in Fangchenggang Power Station to provide more capital to support CLP's clean energy investments. The Group's capital investments rose 13% to HK\$16,009 million in 2022.
- Increasing customer demand for sustainable energy solutions in Hong Kong and Mainland China accelerating the growth of CLPe.
- Securing cost-effective sources of sustainable financing in the first half of 2022 to support business needs before financial market liquidity tightened later in the year.
- Sustainable financing accounting for 68% of financing activities for CLP's regulated business in Hong Kong in 2022, increasing from 58% a year earlier.
- Strong liquidity maintained with undrawn facilities of HK\$31.6 billion and a bank balance of HK\$4.3 billion for the Group as of 31 December 2022.

Rising Expectations on Decarbonisation

Despite a challenging global economic outlook, businesses with stronger environmental, social and governance (ESG) performance have continued to benefit from access to sustainable financing from banks and financial institutions at reasonable cost. The continued availability of funding options has helped finance high levels of capital expenditure required for the energy transition and sustain efforts to decarbonise the global economy, enabling businesses to address rising expectations from stakeholders to step up climate action.

Opportunities for decarbonisation in China remain a bright spot globally with the World Bank forecasting in October

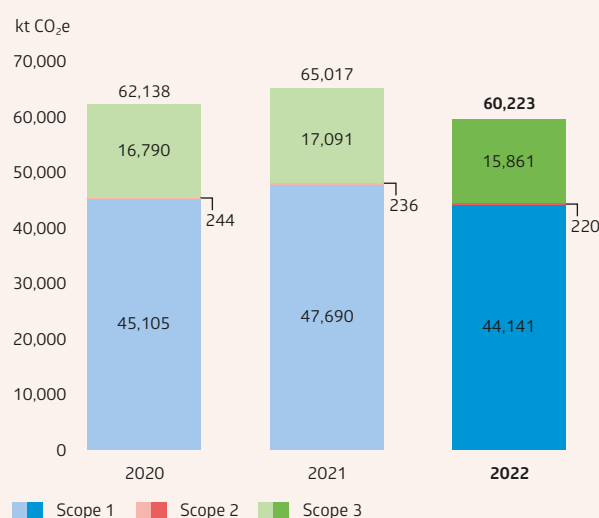
that at least US\$14 trillion (HK\$110 trillion) of additional investments for green infrastructure and technology are needed for the country to achieve its 2060 carbon neutrality goal. Private sector participation is crucial to China's low-carbon transition by delivering market solutions and stimulating innovation, according to the World Bank.

CLP Holdings was ranked first for corporate decarbonisation action and strategies out of 100 companies listed in Hong Kong, Shanghai and Shenzhen in a study in September by China's influential Caijing magazine. The study considered a wide range of factors including emissions performance, information disclosure and risk management, in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Steering Towards a Net-Zero Future

CLP continued to decarbonise its business across Asia Pacific by progressively shifting away from coal-fired generation and increasing investment in renewable energy and sustainable energy business models. The total amount of greenhouse gas emissions (Scope 1, 2 and 3) covering CLP's value chain, including suppliers and customers, decreased to 60,223 kilotonnes of carbon dioxide equivalent (kt CO₂e) on an equity basis, a 7.4% year-on-year decline. The Group's greenhouse gas emissions intensity of electricity sold was 0.55kg CO₂e per kilowatt hour (kWh) in 2022, reduced from 0.57kg CO₂e/kWh a year earlier. Energy sent out from coal and gas assets decreased 6.3% on an equity plus long-term capacity and energy purchase basis, which helped lower the Group's greenhouse gas emissions intensity.

Greenhouse Gas Emissions (on an Equity Basis)



Notes:

- 1 Numbers are subject to rounding. Any discrepancies between the total shown and the sum of the amounts listed are due to rounding.
- 2 Please refer to Glossary (page 321) for definitions of greenhouse gas emissions (Scope 1, 2 and 3).

The HK\$1,648 million divestment of a 70% stake in Fangchenggang Power Station in Guangxi Zhuang Autonomous Region in November helped channel more capital to accelerate CLP's pace of clean energy investments in Mainland China. The transaction is expected to reduce the Group's annual greenhouse gas emissions by about 10% compared with 2022 levels when measured on an equity plus long-term capacity and energy purchase basis. The divestment will result in an estimated total abatement of more than 30,000 ktCO₂e of emissions from the Group's portfolio before 2030, compared with the decarbonisation trajectory projected in 2021.

Since 1 January 2022, the Group's minority interests in Shiheng I and II Power Stations in Shandong province were transferred to the local partner. The handover contributed to the drop in the Group's emissions last year, and was in accordance with contractual arrangements agreed with the partner.

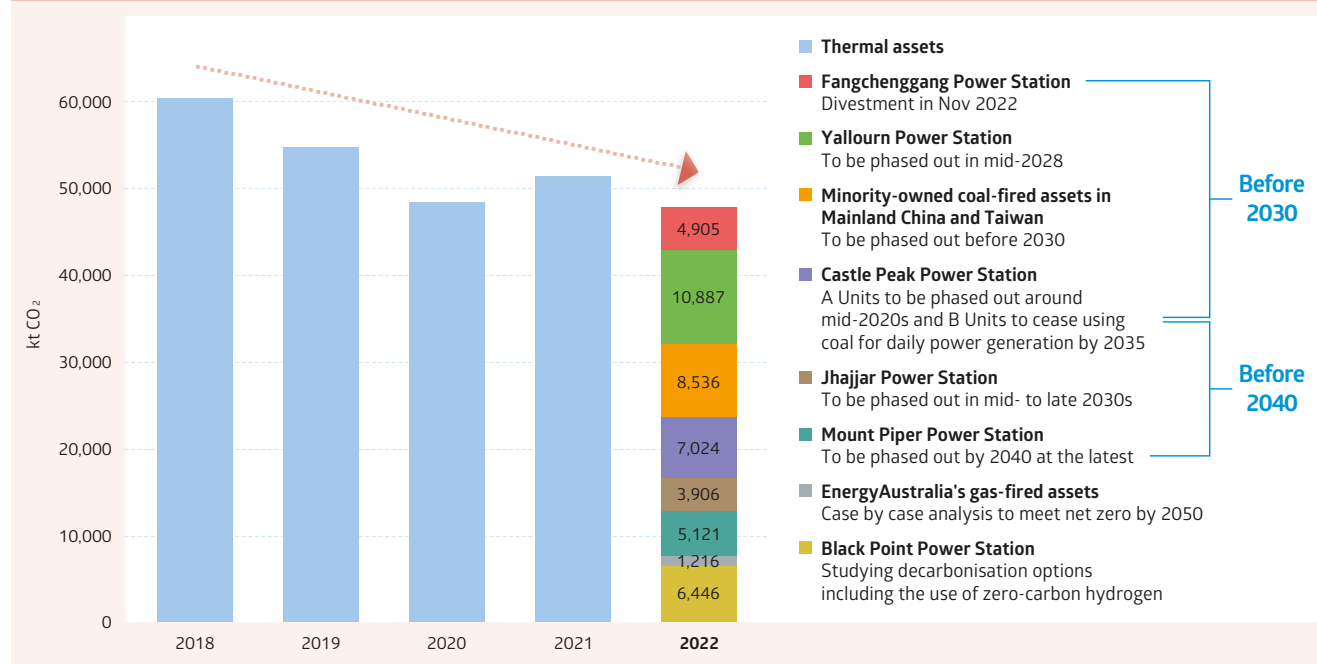
Meanwhile, a 350 megawatt (MW) unit at Castle Peak A Power Station in Hong Kong was put in reserve to operate

only in emergency situations after it reached the end of its asset life in May. Other units at the power station will be progressively retired in coming years as replacement capacity enters Hong Kong's electricity supply, including the new D2 gas-fired generation unit at Black Point Power Station.

Under its Climate Vision 2050, CLP is accelerating the Group's exit from coal-fired generation before 2040. EnergyAustralia's Yallourn Power Station is scheduled for retirement in mid-2028 and Mount Piper Power Station by 2040 at the latest. CLP also aims to exit its minority-owned coal investments in Mainland China and Taiwan before 2030, while Castle Peak B Power Station in Hong Kong will cease using coal for daily power generation by 2035.

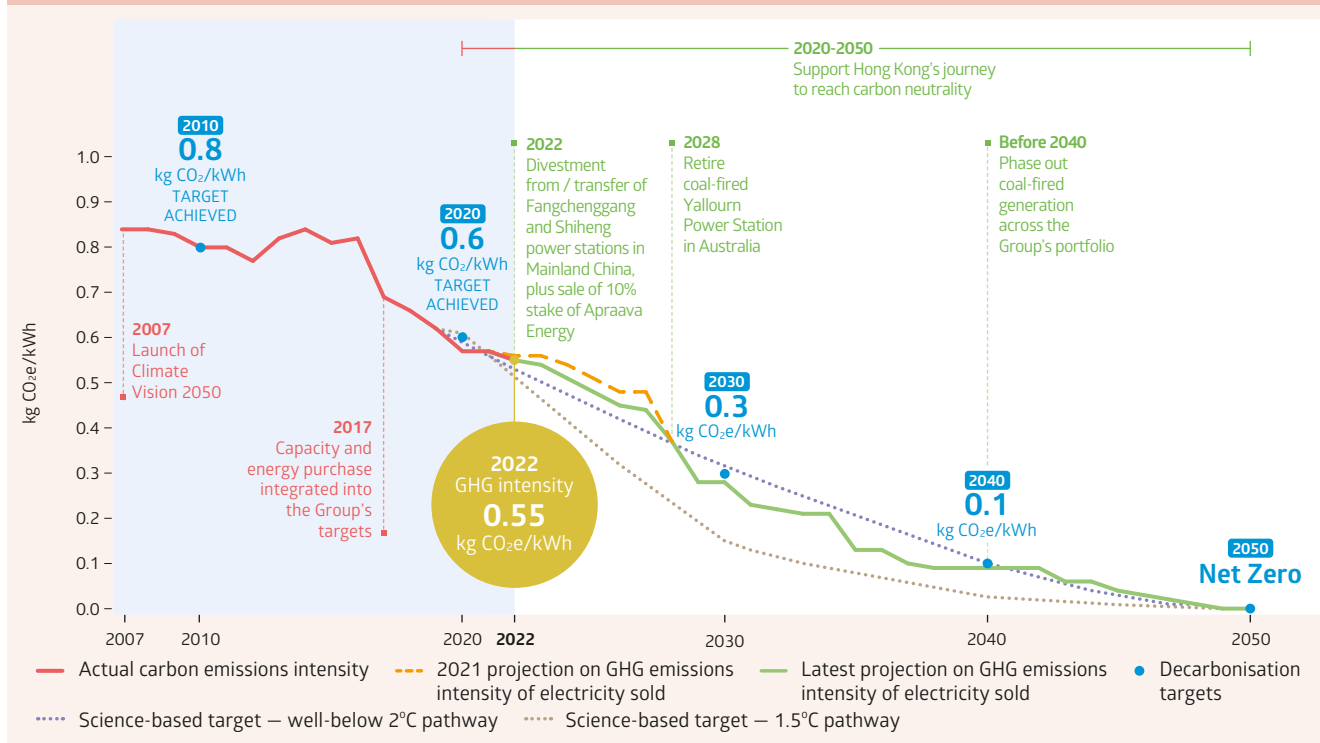
Because of the important role of Mount Piper in maintaining a reliable electricity supply to New South Wales, EnergyAustralia will continue to work closely on future plans for the plant with stakeholders including Federal and State Governments while exploring the feasibility of flexible capacity projects, including a pumped hydro energy storage plant at Lake Lyell with a total capacity of up to 335MW and a 500MW battery energy storage system (BESS).

CLP's Thermal Generation Assets: Absolute Scope 1 and Scope 2 Emissions and Phase-out Schedule



Note: The emissions figures are on an equity plus long-term capacity and energy purchase basis.

CLP's Past and Projected Greenhouse Gas Emissions Intensity



Notes:

- CLP's trajectory from 2007 to 2020 is based on the Group's carbon emissions intensity (kg CO₂/kWh). Since 2021, in line with global best practices, CLP has reported its GHG emissions intensity based on kg CO₂e/kWh.
- CLP's trajectory from 2017 to 2050 is on an equity plus long-term capacity and energy purchase basis.

In 2022, non-carbon operations were the source of most of CLP's earnings. Transmission, distribution and retail generated 71% of operating earnings before unallocated expenses. Fossil fuel operations accounted for a smaller proportion, with contributions from gas assets at 16% and coal assets making a loss for 2022.

The Group will continue to look for opportunities to accelerate the decarbonisation of its portfolio. A review of the current targets for Climate Vision 2050 is underway with the aim to set a 1.5°C-aligned target. Progress in Hong Kong is in part contingent on the Government's approval of CLP Power Hong Kong Limited's (CLP Power) decarbonisation-related projects.

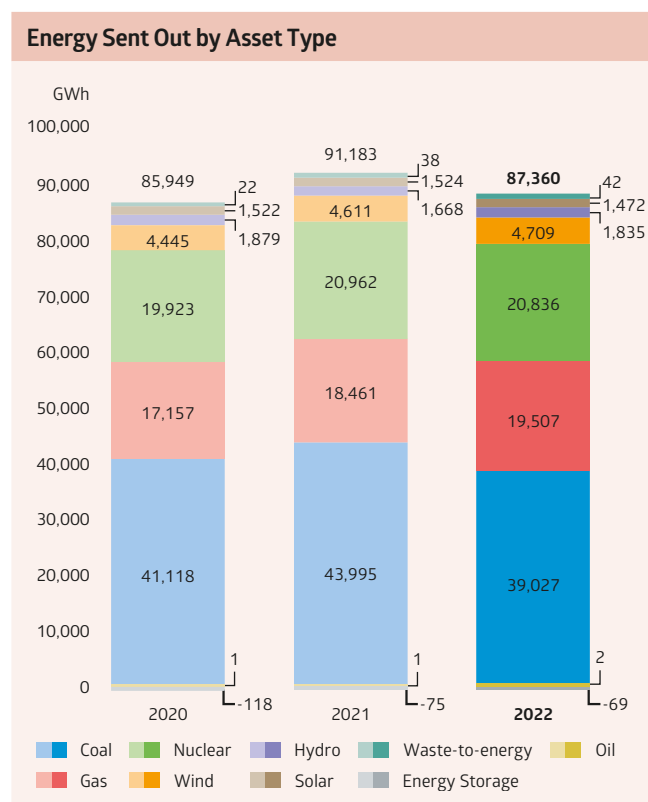
Exploring Opportunities in Green Energy

In tandem with the gradual phase out of coal-based assets, CLP continued to pursue investments in lower-carbon generation and diversified energy solutions. Capital investments increased 13% to HK\$16,009 million as CLP focused on decarbonising its businesses in Hong Kong, Mainland China, Australia and India.

CLP China accelerated the pace of renewable energy development, beginning commercial operations of its new 100MW Qian'an III wind project in Jilin province early in 2022. The new 50MW Xundian II wind farm in Yunnan province is scheduled to go into service in the first quarter of 2023. Meanwhile, the 150MW Bobai wind farm in Guangxi will be CLP China's largest wholly owned wind energy project when construction is completed in 2024.

The clean energy portfolio of CLP China will be further strengthened in 2023 by the planned acquisitions of two solar farms currently under construction – a 100MW project in Guangdong province and an 80MW project in Jiangsu province.

In India, Apraava Energy's new 251MW Sidhpur wind farm in Gujarat state is due to be commissioned in the first half of 2023. EnergyAustralia continued to focus on investments in flexible capacity including the fast-start Tallawarra B Power Station and a battery energy storage system in Wooreen to support Australia's energy transition, providing back-up for the country's renewable energy sources.



Notes:

- 1 Energy sent out by asset type is on an equity plus long-term capacity and energy purchase basis.
- 2 Numbers are subject to rounding. Any discrepancies between the total shown and the sum of the amounts listed are due to rounding.
- 3 The "Energy Storage" asset category includes pumped storage and battery storage.

Navigating the Low-Carbon Journey

CLP Power continued to study a proposal for an offshore wind farm after conducting preliminary geotechnical site investigations. Enhancements are being carried out to its cross-border Clean Energy Transmission System to allow the import of more zero-carbon energy and progress was made on the development of natural gas-based infrastructure projects, including the D2 generator at Black Point Power Station and an offshore LNG terminal.

Natural gas is a transition fuel supporting Hong Kong's journey towards its 2050 carbon neutrality target by lowering the carbon intensity of power generation. Under a multi-pronged approach to decarbonisation, CLP Power is also focused on supporting improved energy efficiency for customers and increased electrification in the economy,

including investment in the ongoing smart meter replacement programme and measures to support the growing popularity of electric vehicles (EVs). CLP Power continued to invest in smart grid infrastructure to support the two-way flow of electricity and data as demand for the Renewable Energy Feed-in Tariff Scheme grew and more customers embraced digitalisation.

The Group completed an upgrade of the centralised cooling system at Po Park Shopping Plaza in Guangzhou in March 2022 to help the customer improve energy efficiency, as part of a contract to operate cooling services for the retail complex until 2036. The Energy-as-a-Service (EaaS) contract allows the customer to pay for the services through a schedule of regular fees over 15 years, without upfront capital costs.

The Energy-as-a-Service Boom

Rising demand for sustainable energy solutions from businesses and organisations in Hong Kong and Mainland China drove the rapid growth of CLPe, a wholly owned subsidiary of CLP Holdings that expanded its workforce by more than 20% in 2022 to meet business needs. Backed by its engineering expertise, CLPe provides an expanding range of solutions to help customers improve their energy efficiency and reduce carbon emissions, including solar energy, cooling, EV charging and BESS.

EaaS proved an increasingly popular model for customers and was used by CLPe in cooling services projects for Hong Kong customers including property companies Chinachem Group and Shui On Group. CLPe also signed EaaS agreements with Link Properties Limited in Hong Kong for solar energy services. At MTR Corporation (Shenzhen) Limited's headquarters in Shenzhen's Longhua district, CLPe launched a distributed solar project under the EaaS model. The MTR project is the first under a memorandum of understanding (MoU) on energy digitalisation signed in August by CLPe and the Longhua District People's Government of Shenzhen Municipality. It is expected to lead to further opportunities for CLPe to provide sustainable energy solutions for businesses in the area.

Advanced digital capabilities such as artificial intelligence and data analytics are at the heart of many sustainable energy solutions, and it is a vital for CLP to draw on the latest technologies to deliver better energy management and efficiency improvements for customers.

Investments in Energy Innovators

Technology innovation is critical for the development of cleaner, more digitally connected energy solutions needed to build a low-carbon economy. CLP has committed to about US\$100 million (HK\$780 million) of investments in innovators around the world since 2017 as part of efforts to strengthen the Group's technology capabilities.

CLP's venture investment portfolio covers more than 50 technology companies globally, with a focus on the innovation centres of Mainland China, the US and Israel. The portfolio has not only delivered investment returns exceeding 10% annually but has enabled CLP to collaborate with some of the world's most dynamic entrepreneurs to accelerate energy innovation.

CLP is exploring a possible pilot project with Hydro X, an Israeli company with an innovative technology for storing hydrogen. In 2021, Hydro X received an investment from CLP-OSEG, CLP's joint venture with the Other Sources Energy Group in Israel. The partnership with Hydro X will help increase CLP's understanding on technologies that enable the storage and transportation of hydrogen, a fuel that has the potential to decarbonise the electricity sector.

After acquiring a 5% stake in Beijing-based Venturous Group in 2022, CLP formed a strategic partnership with the Chinese smart city technology firm. The collaboration focuses on the Greater Bay Area and will benefit from Venturous Group's capabilities in technologies including Internet of Things, artificial intelligence (AI) and building energy management.

Since investing in AutoGrid Systems in 2018, CLP continued to strengthen its collaboration with the Silicon Valley-based company on AI technology to balance power supply and demand at times of peak electricity consumption. In 2022, AutoGrid was acquired by Schneider Electric with CLP continuing as a strategic investor. The transaction will support AutoGrid in accelerating its growth through greater resources and a broader global reach.

Apart from direct investments like AutoGrid, CLP's venture portfolio includes technology companies in venture funds managed by the US's Westly Group and the CSG Energy Innovation Fund set up by China Southern Power Grid.

CLP can also access the latest energy technologies by participating in accelerator and scouting programmes including the Phoenix Programme, run by China's CYZone, and Free Electrons, a programme enabling international utility companies to collaborate with energy technology providers around the world.

Access to Cost-Effective, Sustainable Financing

Throughout a year of extreme financial market volatility and heightened geopolitical tension, CLP maintained good access to diversified sources of cost-effective funding, completing its financing activities in a timely, meticulous manner to support business growth, with ESG features embedded in the financing aligned to the Group's climate objectives. The Group's financial position remained strong, despite a lower level of operating cash flow of HK\$12,734 million due to EnergyAustralia's operational challenges against a backdrop of an unprecedented energy market, while in Hong Kong, fuel costs to be recovered from customers increased and a provisioning for special rebate was made. CLP's balanced asset portfolio and solid performance and earnings in the core markets of Hong Kong and Mainland China helped the Group to maintain total dividends for 2022 of HK\$7,832 million, which is in line with 2021. CLP's financial health and flexibility enabled the Group to maintain adequate financial strength with both internal resources and external funding to support capital investments.

Global financial markets saw unprecedented upheavals in 2022. The start of the Ukraine conflict in February quickly caused surging inflation, elevated commodity prices and triggered multiple rounds of monetary tightening by central banks that resulted in the fastest pace of interest rate increases globally since 2000. The yield of the benchmark 10-year US Treasury Notes surged from 1.63% in early January 2022 to 4.24% in October, the highest level since 2008, before retreating to 3.87% at the end of December. Three-month Hong Kong Interbank Offered Rates jumped from 0.26% in January 2022 to 5.42% in December, before softening to 4.99% at year end.

CLP followed its prudent financing and treasury management philosophies to take timely action in the first quarter of 2022 to secure most of its funding needs before market liquidity tightened after March, while achieving sustainability-related benefits in the process. This helped CLP retain its financial headroom for growth at attractive commercial terms in a more socially responsible way. A good example was the JPY15 billion (HK\$1 billion), three-year samurai cross-border

syndicated loan facility of CLP Power which carries emission reduction-linked features, with proceeds fully swapped into Hong Kong dollar through a sustainability-linked derivative. The financial derivative was reported to be one of the first of its types arranged for a corporate in Hong Kong.

This transaction was soon followed by a total of HK\$9 billion financing for CLP Holdings, CLP Power and Castle Peak Power Company Limited (CAPCO). The three entities executed HK\$4.7 billion, HK\$1 billion and HK\$3.3 billion, respectively, of new short- to medium-term bank facilities at competitive terms. They further raised the financial headroom of CLP Holdings and expanded the company's capabilities to pursue business opportunities and meet contingencies. The loan facilities completed by the Scheme of Control (SoC) entities provided support to continuous capital and operational expenditures in Hong Kong in line with the decarbonisation commitments of the Hong Kong Government and CLP, and included ESG features similar to some existing loan facilities.

CLP Power and CAPCO have well-established Medium Term Note programmes in place under which bonds in aggregate amounts of up to US\$4.5 billion and US\$2 billion respectively may be issued. As of 31 December 2022, notes with an aggregate nominal value of around HK\$27.5 billion and HK\$9.1 billion were issued by the two companies respectively.

Healthy Financial Position Withstanding Challenges

CLP's prudent, pragmatic and highly disciplined risk management philosophy ensured the Group conducted its financing and risk management in good order within its governance framework with no undue exposure. This perseverance also helped support good, stable investment-grade credit ratings and outlooks for CLP Holdings, CLP Power and CAPCO that enable the Group to take up business opportunities and effectively manage evolving challenges in the operating environment. The Group retained strong liquidity and a healthy capital structure in 2022, with financial capability and flexibility built on solid, long-term relationships with capital providers. CLP's readiness to deal with market fluctuation, and strong commitment to climate action ensured the Group navigated through the turbulence while maintaining its business strategy with continued progress on decarbonisation. CLP's proactive financial risk management, focused on natural and accounting-effective hedging, also protected the Group against interest rate and foreign exchange movements. The Group's fixed-rate debt as a proportion of total debt was 52% excluding perpetual capital securities or 55% including perpetual capital securities.

Extraordinary volatility and higher prices in forward energy markets in Australia from March to July 2022 once posed immense challenges to EnergyAustralia to meet margin calls on its energy contracts within very short term notice. CLP Holdings leveraged on its good networking in the financial market and extended strong support to EnergyAustralia for the business unit to complete a A\$1 billion (HK\$5.5 billion) non-recourse syndicated credit facility in July. This credit facility was split into revolving cash advance loan and amortising term loan to cater for EnergyAustralia's fund flow requirements and enabled the business to replenish liquidity. EnergyAustralia also upsized its revolving bank debt facility from A\$2.5 million (HK\$14 million) to A\$750 million (HK\$4 billion) in April and arranged A\$300 million (HK\$1.6 billion) bank guarantee facilities in December to meet its needs.

CLP China worked with existing and new lenders to lower the financing cost and extend debt tenor for four renewable energy projects. A total of RMB1.1 billion (HK\$1.2 billion) non-recourse project loan facilities were refinanced, enhancing the economic value of the investments. In addition, new non-resource project loan facilities in total of RMB1.2 billion (HK\$1.3 billion) were arranged for two renewable energy projects.

As a result, the Group's liquidity strengthened, with undrawn facilities and bank balances increasing to HK\$31.6 billion and HK\$4.3 billion respectively as of 31 December 2022, compared with HK\$19.5 billion and HK\$3.7 billion respectively six months earlier. Meanwhile CLP Holdings maintained HK\$13.5 billion of liquidity on 31 December 2022, more than double the HK\$6 billion held on 30 June 2022. This higher level of liquidity is expected to remain in 2023 and will be supported by dividend income from subsidiaries, joint ventures and associates, and the arrangement of debt facilities in appropriate amount.

Following CLP's strategic divestment of an additional 10% stake in Apraava Energy to CDPQ in December, Apraava Energy is accounted for as a joint venture and its debt balance has been excluded from the CLP's overall debt profile. This would further strengthen CLP's financing capability to invest in renewable energy and decarbonisation projects. Apraava Energy arranged Rs55 billion (HK\$5.2 billion) of debt facilities at competitive interest rates mainly to refinance existing loans to fund power transmission and renewable energy projects.

Debt Profile as of 31 December 2022	CLP Holdings HK\$M	CLP Power HK\$M	CAPCO HK\$M	Other Subsidiaries HK\$M	CLP Group HK\$M
Availability Facility ¹	12,850	34,152	26,636	17,212	90,850
Bank Loans and Other Borrowings	–	29,421	19,138	10,658	59,217
Undrawn Facility	12,850	4,731	7,498	6,554	31,633

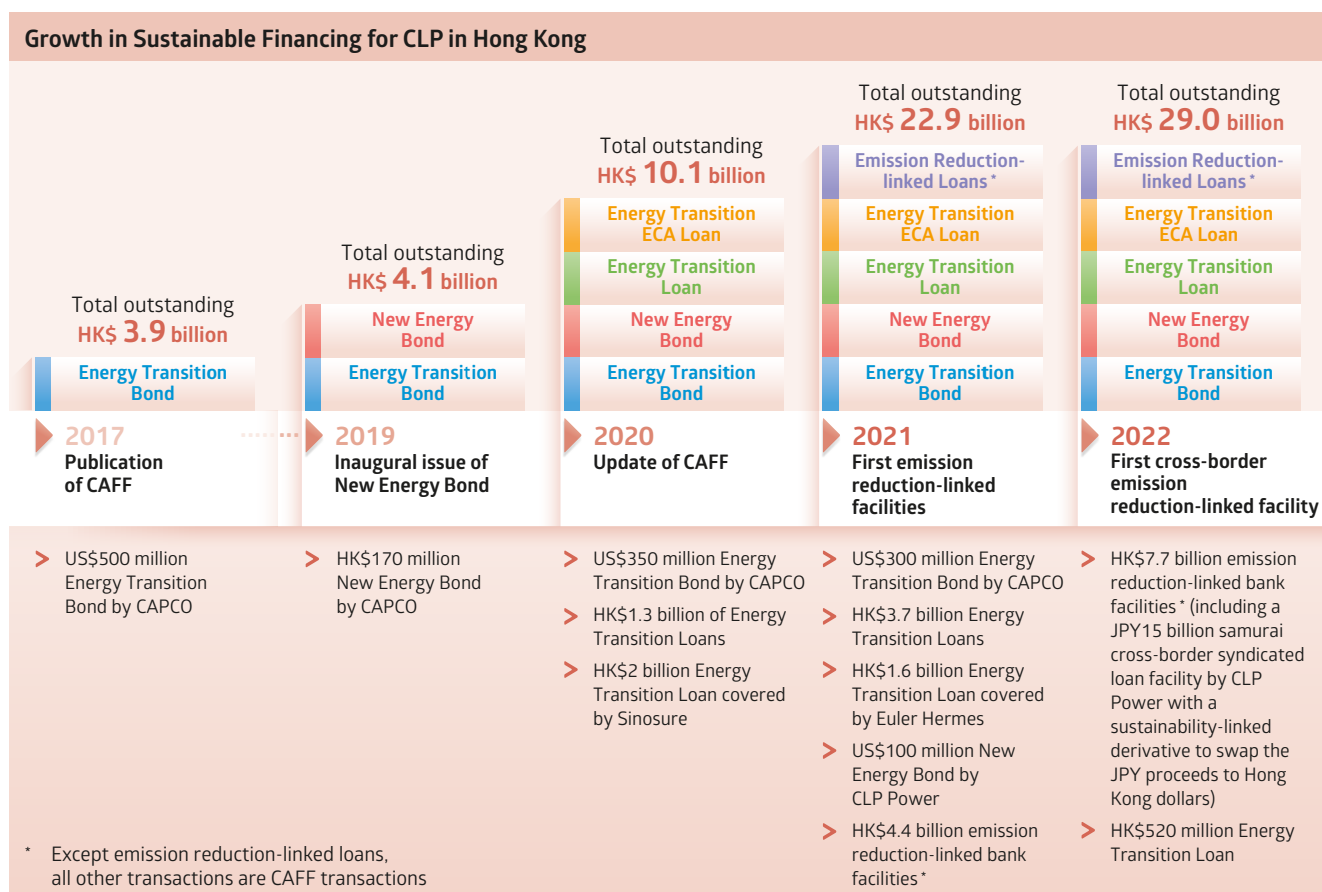
Note:

¹ For the Medium Term Note programmes, only the amounts of the bonds issued as at 31 December 2022 were included in the total amount of Available Facility. The Availability Facility in EnergyAustralia excluded a facility set aside for guarantees.

Growth in Sustainable Financing

The establishment of CLP's Climate Action Finance Framework (CAFF) in 2017 was a testament to the Group's pioneering position in green, sustainable financing and commitment to the highest standards of corporate governance. CLP has since arranged an aggregate of HK\$19 billion of Climate Action Finance Transactions, through 10 tranches of bonds, export credit loans and commercial loan facilities, to support decarbonisation of the business. The CAFF has been also refined over the years to align with evolutions in the market and CLP's growing low-carbon asset portfolio.

Of the financing activities arranged by CLP's SoC businesses in Hong Kong in 2022, 68% were from sustainable financing sources, up from 58% the previous year.



See CLP Climate Action
Finance Report 2022.



More information about
CLP Climate Action Finance Framework
can be found on our website.

In September 2022, CLP extended its climate commitment to the Group Provident Fund Scheme, which incorporated sustainability as a key element for the first time and included a sustainable growth fund with ESG elements in its portfolio to broaden asset allocation options for members.

Diligent Risk Management Underpins Solid Business

The energy sector is capital intensive with long payback periods. Faced with increasing level of risks in the market, CLP's ability to arrange sustainable, commercially attractive funding, supported by an effective risk management framework, is a critical factor in managing and expanding the business and creating value for its stakeholders. CLP transacts only with credible financial institutions and financially sound business counterparts with strong credit ratings. These measures ensure CLP's businesses do not face undue residual financial or credit risks, and provide assurance to stakeholders including shareholders and other capital providers, governments, customers and business partners.

CLP recognises the importance of maintaining strong investment-grade credit ratings to achieve its business and climate objectives.

Standard & Poor's (S&P) affirmed CLP Holdings' A rated credit rating in July and opined that CLP's regulated business in Hong Kong remained intact, while the company's financials were likely to be constrained by the weak Australian

segment. Moody's opined in October that CLP Holdings has maintained adequate financial profile and sound liquidity within its current A2 credit rating profile. In December, Moody's assigned an inaugural Baa2 credit rating to EnergyAustralia with a stable outlook, noting the importance of its generation fleet to the National Electricity Market and parent support from CLP. In the same month, EnergyAustralia asked S&P to withdraw its BBB- credit rating with negative outlook.

Along with their credit rating reviews, S&P and Moody's assigned CLP Holdings, CLP Power and CAPCO with ESG credit scores, which reflected impact of key sustainability drivers to credit. S&P and Moody's assigned CLP Holdings with scores of E-3, S-2, G-1 and E-3, S-3, G-2, respectively, on a scale of 1 (highest score) to 5 (lowest score). Both agencies recognised CLP's credible commitment to taking action on climate change and the capital spending for energy transition to meet the net-zero emission targets. The S-2 and G-1 scores are among the highest assigned by S&P to power companies in the region, reflecting the Group's strong commitment to transparent disclosure, robust governance and risk management.

CLP is committed to transparent, reliable and consistent reporting in line with the TCFD's recommendations, enhancing its climate-related risk assessment and developing bespoke climate scenarios for its markets. Further information is provided in CLP's [2022 Climate-related Disclosures Report](#). 🍊

	S&P	Moody's
CLP Holdings	A / Stable	A2 / Stable
CLP Power	A+ / Stable	A1 / Stable
CAPCO	AA- / Stable	A1 / Stable
EnergyAustralia	Not Applicable	Baa2 / Stable



More information of our credit ratings can be found on our website.



More information about major financing activities in 2022 and our debt profile can be found on pages 35 and 36 of the CLP Holdings 2022 Annual Results Presentation.



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

Material Topics



Bolstering energy security and reliability



Reinforcing resilience in a changing operating environment

CLP is committed to **providing customers with reliable and reasonably priced energy**. With the conflict in Ukraine exacerbating the global energy crisis, CLP **navigated the geopolitical instability** by strengthening cost control measures and maintaining diversified fuel sources, **building resilience in the face of climate change and an evolving business environment**. As CLP offers a growing range of energy services and business models, the Group's customer base is diversifying beyond the 5.21 million traditional retail energy customers in Hong Kong and Australia to other consumers, businesses and organisations requiring sustainable energy solutions. With the accelerating pace of digitalisation, CLP strengthened its **cyber resilience and data protection** to safeguard its business and customers against rising online threats. Key initiatives covered in this section include:

- > Continued operational resilience and a secure energy supply to customers during most acute phase of the pandemic in Hong Kong
- > Cost controls and customer support to mitigate the impact of surging fuel prices on electricity tariffs
- > Decisive action on the recommendations of experts panel following a cable bridge fire incident

Putting Customers First

The operational resilience of CLP Power ensured a safe, secure supply of electricity for customers as the most acute phase of the COVID-19 pandemic caused widespread disruption in Hong Kong in early 2022. It maintained a high standard of operations for power plants and grid networks underpinned by solid business continuity planning at a time when a stable energy supply was critical to households and businesses.

Meter reading and customer service centres were suspended or scaled back from January 2022 onwards to safeguard public health and reduce the risk of infection, resuming in late April as the outbreak receded. Catering and retail businesses suffered some of the most acute economic impact, and CLP Power relaunched its bill payment deferral scheme to allow eligible small and medium enterprise (SME) customers in those sectors to defer bill payments for two months.

Large swathes of Queensland and New South Wales in Australia were devastated by flooding caused by record rainfall. EnergyAustralia temporarily stopped billing across

150 impacted suburbs to support affected customers. Credit and collection activities were also suspended for more than 190,000 customers to ensure they stayed connected while flood damage to their homes was repaired.

The wholesale electricity market was suspended for the first time by the Australian Energy Market Operator (AEMO) for nine days in June as extreme weather and outages of major generators disrupted power supplies. EnergyAustralia provided the AEMO access to all its available generation capacity to help ensure there was adequate power supply to meet people's needs during the unprecedented suspension. Meanwhile, EnergyAustralia continued to focus on maintaining reliable operations at its power stations. Generation increased significantly at the Tallawarra, Newport, Jeeralang and Hallett gas-fired plants, partially offsetting a reduction in output from the coal-fired Yallourn and Mount Piper plants. Operations at Yallourn were affected by a series of unplanned plant outages, while generation at Mount Piper was hindered by lower-than-contracted fuel delivery from the contractor.

Learning Lessons from a Challenging Incident

Electricity supply to around 175,000 CLP Power customers in Hong Kong was affected on 21 June 2022 when a cable bridge in north-west New Territories caught fire, damaging three 132kV high-voltage circuits and some medium voltage and communication cables. Work began immediately to restore the supply, and priority was given to essential services such as hospitals and railways. As a result of the exceptional response from engineering teams, power was restored to around 90% of affected customers within seven hours, and to remaining customers around six hours later.

The extremely rare incident was a matter of profound concern for CLP Power, and an expert panel was appointed to conduct a comprehensive investigation. The expert panel's report to the Hong Kong Government in August concluded that it was highly likely a fluorescent light in the cable bridge caught fire and ignited a communication cable, with the fire then spreading to the adjacent communication and power cables. The majority of the panel's recommended improvements have been completed, with the remaining measures progressing. Fire risk assessments were completed on all common cable infrastructure in CLP Power's supply network in Hong Kong, and an implementation plan was formulated to further reduce fire risk exposure.

The unfortunate incident caused serious inconvenience to many residents on a hot summer night and CLP Power extended its sincere apologies to everyone affected. As a gesture of gratitude for their understanding, appreciation vouchers worth HK\$100 which could be redeemed at around 600 local businesses were distributed to all affected customers.

Meeting Rising Customer Expectations

CLP remained focused on strengthening its energy asset portfolio in Asia Pacific and improving operational performance to fulfil customer expectations of a reliable, lower-carbon power supply. The offshore LNG terminal under construction in south-western waters is the first of its kind in Hong Kong, enhancing energy security by introducing more diverse supplies of natural gas from international markets.

The new gas-fired generation unit being built at Black Point Power Station is another key infrastructure investment vital to ensure power supply reliability in Hong Kong as the city's carbon-neutral transition accelerates. It will provide replacement capacity as coal-fired units are progressively retired at Castle Peak A Power Station.

CLP China's new 100MW Qian'an III wind farm in Jilin province was backed up by a 5MW battery energy storage system to increase its supply resilience during times of intermittent resources. The performance of the plant is tracked around the clock by CLP's data analytics platform, which monitors every operating renewable energy asset of the Group in Mainland China and India.

EnergyAustralia is developing the new Tallawarra B hybrid natural gas and hydrogen generator in New South Wales to ensure more renewable energy can enter Australia's electricity market reliably. EnergyAustralia has also received planning approval for the 350MW Wooren battery storage system to be located at Jeeralang Power Station in Victoria to increase the security of the state's power supply.

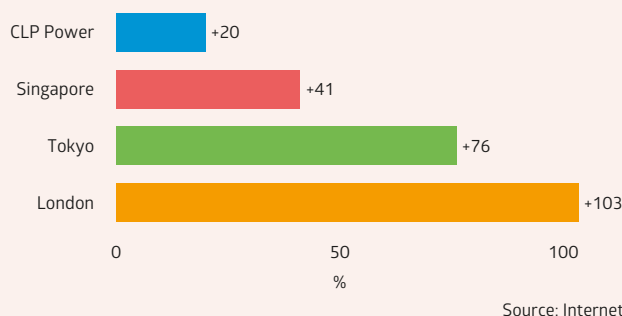
Supporting Customers through a Global Crisis

The global energy crisis intensified over the course of 2022 as the war in Ukraine exacerbated supply pressures in the markets for natural gas, oil and coal. While countries including the US and Japan released large stocks of

petroleum reserves to address the crisis, energy markets remained volatile.

Risks to electricity utility companies worldwide mounted as fuel prices surged, forcing suppliers to raise tariffs and pushing many energy retailers out of business. Between January 2021 and January 2023, average residential electricity tariffs more than doubled in London, and rose by 76% and 41% in Tokyo and Singapore respectively.

Residential Tariff Increase from Jan 2021 to Jan 2023



Note: Comparison based on monthly domestic consumption of 275kWh

EnergyAustralia stepped in to provide electricity and natural gas services for many households and businesses left without suppliers following the collapse of some Australian energy firms as the global energy shocks rippled through the nation's energy markets.

Easing the Pain of Surging Global Prices

CLP Power implemented wide-ranging cost control measures to mitigate the tariff pressure on customers as the global energy crisis led to sharply higher fuel costs and soaring inflation in 2022. The Basic Tariff for customers was kept unchanged in 2023 for the third consecutive year. Rising fuel costs, however, led to a 19.8% year-on-year increase in the Average Net Tariff.

Cutting Costs to Minimise Tariff Impact for Customers

CLP Power is committed to managing its business in a cost-efficient way and has carried out comprehensive measures to lower expenses in the business by optimising operations ranging from power distribution and procurement to customer services and information technology.

Improvements to work processes and the deployment of new technologies such as smart meters have further enhanced cost efficiencies. CLP Power has achieved more than HK\$500 million of cost savings while continuing to expand operations in Hong Kong since 2020 through optimisation measures and operational improvements, despite global inflationary pressures.

The cost savings helped support maintaining a sufficient balance in CLP Power's Tariff Stabilisation Fund and provided a new 2023 Special Energy Saving Rebate for customers with lower electricity usage. The rebate is expected to apply to more than half of the bills of eligible CLP Power residential and SME customers. This will not only offset some of the impact of the rise in the Average Net Tariff, but also encourage customers to save energy, lowering their overall electricity expenses. Underprivileged groups, such as tenants of subdivided units, are eligible for additional support from CLP Power's Fuel Cost Subsidy Programme for people in need, funded by the CLP Community Energy Saving Fund.

Helping Customers Save Energy

As well as providing targeted support for particularly vulnerable people, CLP Power continued to focus on measures to help customers improve their energy efficiency and reduce consumption. The ongoing smart meter replacement programme in Hong Kong provides customers with timely, convenient access to power consumption data, giving them the information they need to manage their electricity use and save energy. CLP Power has now connected more than half of its residential and SME customers to smart meters in its ongoing programme to replace the conventional meters of all eligible customers.

Business customers in Hong Kong meanwhile enjoy a broad range of services, including energy audits and training to make their operations more energy efficient and sustainable. Since its launch in 2021, CLP Power's Retro-Commissioning Charter programme has helped an increasing number of customers optimise the performance of electrical equipment and avoid the need for expensive replacements. Additional funding will now be provided for advanced training on retro-commissioning. Separately, CLP Power will work with universities and research organisations to conduct in-depth

energy analysis for industries and organisations with high levels of energy consumption, such as hospitals and data centres.

Since the start of the current SoC agreement in October 2018, CLP Power has helped commercial and industrial customers in Hong Kong achieve 545GWh of electricity savings through energy efficiency programmes, including Energy Audits, the CLP Eco Building Fund and the Electrical Equipment Upgrade Scheme. The savings are equivalent to the annual power consumption of more than 123,000 residential households.

Harnessing the Power of Digitalisation

Smart meters are a prime example of the way in which digitalisation can be harnessed to support the evolving energy needs of customers. CLP continued to strengthen its digital capabilities to deliver more user-centric, technology-enabled services to customers, whose preferences continue to shift towards online interactions and experiences. More than 60% of the account activities of CLP Power's customers in Hong Kong are now conducted through digital channels, compared with less than 10% just a few years ago.



Case Study

Using Smart Technology to Reduce Energy Use

Around 600,000 Hong Kong residential customers with smart meters are in CLP Power's demand response programme enabled by advanced digital technology. Participating customers in the Summer Saver Rebate programme received notifications to reduce their electricity use during periods of peak power demand in the summer months. In return for lowering energy use, customers could earn points for redeeming rewards such as retail coupons and electrical appliances.

Without the programme, and similar demand response measures from CLP Power's industrial and commercial customers, the peak power demand for its supply network in Hong Kong would have been at least 130MW higher on 25 July 2022, when the city's electricity demand hit a new record of 7,720MW.

To help customers reduce consumption further, CLP Power is piloting Smart Air Conditioner (AC) Controller, a device that uses artificial intelligence and built-in sensors to continuously monitor the temperature and humidity levels in customers' homes. The smart technology intelligently controls the operations of air conditioners to save energy while keeping room temperatures at comfortable levels.

User feedback was positive, with results from the pilot programme showing the devices help customers achieve energy reductions of about 30%. Participants who used the devices in the Summer Saver Rebate demand response programme were able to convert their savings into rewards including supermarket shopping vouchers and energy-efficient cookers.

CLP Power's Smart AC Controller won the Innovative Energy Project of the Year award for the Asia-Pacific Rim region from the Association of Electrical Engineers in the US.

Digitalisation also helps enhance operational performance and support CLP's continued growth as the Group pursues more diversified energy opportunities and increases synergies across its businesses in the core markets of Hong Kong and Mainland China.

Technologies such as demand response programmes enable customers to save energy and are key tools to help CLP improve power supply reliability. They reduce the strain on the electricity grid at times of peak demand, lowering the need for additional investments in capacity.

CLP's growing data science capabilities are providing the Group with new tools to enhance the performance of its operations. For example, predictive software with AI capabilities are being deployed by CLP to enable more accurate predictions of electricity demand, and support more timely detection of cable faults.

Facing Up to Cyber Threats

CLP continued to strengthen its cybersecurity capabilities to counter rapidly evolving threats. In addition to ongoing efforts on monitoring and detection, CLP focused on integrating cybersecurity protection in the development of new services. This approach provides greater assurance to customers and avoids the need to retrospectively introduce cybersecurity features and incur additional development costs at a later stage.

CLP also continued to provide comprehensive cybersecurity awareness and training programmes to employees as part of a holistic strategy to mitigate online threats.

An incident involving EnergyAustralia's My Account data platform on 30 September resulted in data from 323 residential and small business customers being compromised. No other systems were affected and access to the My Account system was temporarily suspended while EnergyAustralia investigated the incident. All 323

affected customers were quickly contacted by SMS, email and telephone to reset their passwords. While the incident was limited in terms of the number of customers affected, EnergyAustralia put in place additional layers of security to ensure the protection of all customer information, including the introduction of more complex passwords. EnergyAustralia apologised for the incident and notified relevant regulatory authorities and government agencies.

Implementing Improvements for Customers

In June, EnergyAustralia received a penalty A\$12 million (HK\$65 million) from the Federal Court after the business self-reported breaches of applicable life support rules and admitted that it did not have adequate systems in place to fully comply with the rules for a period of time. Since the breaches occurred between 2018 and 2020, EnergyAustralia has updated its systems and processes to improve compliance.

In August, Victoria's Essential Services Commission accepted EnergyAustralia's enforceable undertaking to a series of improvement actions related to obtaining explicit informed consent from customers. The actions included improved compliance training on relevant regulatory requirements, increasing quality assurance checks of sales interactions and strengthening senior management oversight. EnergyAustralia failed to obtain explicit informed consent from some electricity and gas customers who entered into contracts with the company between June 2020 and January 2022.

Reducing Carbon Footprints

CLP Power provided an expanded range of solutions to help customers reduce their carbon footprints and support the transition to a low-carbon economy. Renewable Energy Certificates (RECs) in Hong Kong offer customers a simple way to support clean energy generation while qualifying for carbon emission reduction benefits.

CLP Power stepped up measures to promote e-Mobility by working closely with EV owners and property managers to support the development of charging infrastructure and services to decarbonise the transportation sector. Free EV charging services from CLP Power remain available at more than 50 charging stations in Kowloon, the New Territories and Lantau. Under its Eco Charge 2.0 programme, CLP Power also provides one-stop technical support and customer service to applicants seeking funding to build EV charging-enabling infrastructure in residential car parks under the Hong Kong Government's EV Charging at Home Subsidy Scheme.

EV charging-enabling infrastructure was provided for all 302 parking bays at The Regalia, a private residence in Kowloon that benefitted from the Eco Charge 2.0 programme to implement the largest EV charging-enabling infrastructure under the scheme so far in Hong Kong. CLP Power worked closely with the property management office, owners' corporation, consultants and contractors, providing technical advice and recommending appropriate power supply and meter installation solutions. CLP Power also launched its first EV managed charging programme for a small group of residents at The Regalia. Under the programme, CLP Power will remotely control the charging rate of the smart EV chargers during peak demand hours to optimise grid management and encourage customers to charge in a smarter and more energy-efficient way.

EaaS models are providing cost-effective ways for customers to enjoy the benefits of sustainable energy solutions. Under a Cooling-as-a-Service contract with property company SOCAM Development Limited, CLPe will operate cooling services for 15 years at the Shui On Centre in Hong Kong's Wan Chai commercial district where a new chiller system equipped with AI technology is being installed. Meanwhile, CLPe also signed a 20-year centralised cooling contract with real estate company Chinachem Group for Nina Tower, the tallest building in Hong Kong's New Territories. CLPe will offset all the new system's electricity consumption at Nina Tower with Green Electricity Certificates from a renewable energy project of CLP Holdings. In 2022, CLPe also signed 14 agreements with Link Properties Limited to build solar photovoltaic systems on the rooftop of its shopping centres. Some of the systems have begun operation and generating renewable energy.

CLPe is also providing leading Chinese food and nutritional manufacturer Guangdong Weixin Biological Technology Limited with chilled water, steam, and compressed air in an EaaS project at the company's industrial park in Qingyuan in Guangdong province.



Technical support from CLP Power enables The Regalia in Kowloon to equip EV charging-enabled infrastructure for more than 300 existing parking spaces.

Material Topics



Building an agile and innovative workforce

CLP is equipping its people for rapid change in the energy industry, **enhancing their technical and digital capabilities** and **attracting and retaining talent** to drive the Group's transformation into a Utility of the Future. As decarbonisation and digitalisation continue to reshape the electricity sector, CLP is focused on developing greater organisational agility to adapt and respond to the rapidly evolving environment. CLP is committed to helping its people embrace and thrive in change while **promoting workplace safety and wellbeing**. Key initiatives covered in this section include:

- > Increased recruitment in core markets of Hong Kong and Mainland China
- > Recognition as Most Attractive Employer by Shixiseng, one of the most popular campus recruitment platforms in Mainland China
- > The participation of more than 6,000 employees and contractors in interactive online activities to explore new ways of working

Equipping People to Excel

CLP is determined to equip its employees to develop the necessary capabilities, skills and behaviours to succeed and excel through a time of profound transformation in the energy sector, as their future workplace is being reshaped by the energy transition, demographic changes and evolving regional market priorities. The lingering impact of the COVID-19 pandemic is meanwhile a constant reminder of the importance of employee wellbeing to a resilient business.

Having the right talent to deliver a pipeline of zero-carbon projects and sustainable energy solutions in CLP's core markets of Hong Kong and Mainland China, enabled by digitalised operating models, will create significant value for the Group. To achieve this, CLP must provide a modern, inclusive workplace, with flexible, collaborative and results-oriented ways of working to attract and retain talented people and respond to the challenges of an ageing workforce and labour market disruption. Employees also need a workplace culture that encourages fast decision-making, creativity, experimentation and taking personal ownership and responsibility.

In the transition to a low-carbon economy, CLP is committed to helping employees to embrace and thrive in change. This means providing comprehensive support and reskilling for employees whose work is affected by the net-zero transition and other business changes, strengthening their wellbeing and resilience and developing more inclusive workplaces.

Putting Safety First

As the pandemic persisted, CLP maintained comprehensive measures to safeguard the wellbeing of employees and contractors and ensure business continuity. These measures included special work arrangements, site access controls, health education and support for employees to get vaccinated. High vaccination rates were achieved across the Group, and CLP will continue to review measures and precautions based on the prevailing situations in the areas where it operates.

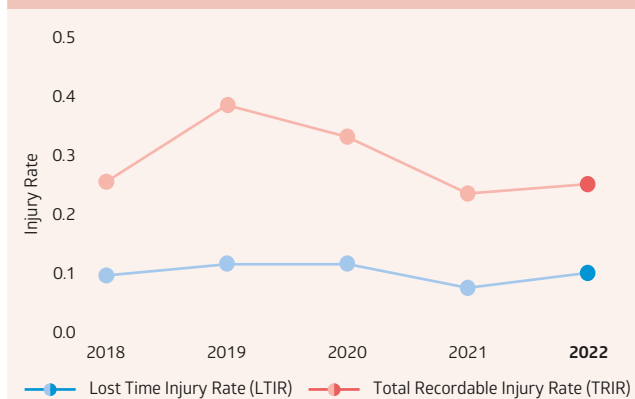
The Group launched an updated multi-year health, safety and environment (HSE) strategy with a focus on creating safer work processes through improved organisational learning. The strategy will further strengthen CLP's efforts to prevent fatalities and serious incidents while driving increased digitalisation through the application of software solutions to replace some manual safety management processes. Additionally, there was a focus on increasing the resilience of business operations against unplanned events.

CLP implemented an awareness campaign for employees on the risks of people and objects falling in the workplace and conducted a review of high-risk activities to improve safety.

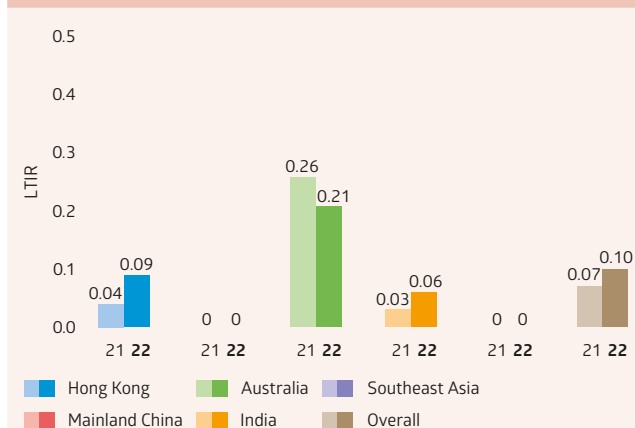
In 2022, the total recordable injury rate (TRIR) and lost time injury rate (LTIR) for employees and contractors were marginally higher than a year earlier, mostly related to maintenance activity at Castle Peak Power Station. There was a reduction in injury rates at EnergyAustralia, reflecting ongoing safety improvements in its operations. Meanwhile, additional project activities at Apraava Energy resulted in a small increase in minor incidents. In 2022, there was an increase of more than two million manhours for operational and project activities across the Group.

With many employees continuing to work remotely amid prolonged pandemic restrictions, CLP supported them by providing resources including the personal fitness app Virgin Pulse and access to online health, wellbeing and mental health resources.

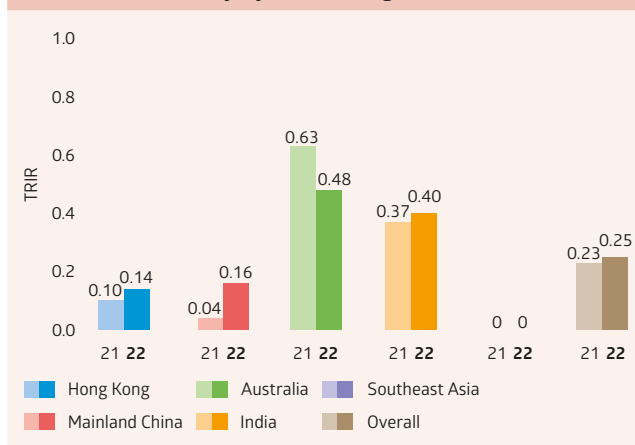
Group Lost Time Injury Rate and Total Recordable Injury Rate



Lost Time Injury Rate at Regional Level



Total Recordable Injury Rate at Regional Level



Notes:

- 1 The LTIR and the TRIR are the number of lost time injuries and recordable injuries respectively measured over 200,000 working hours, which is equivalent to around 100 persons working for one year.
- 2 According to Global Reporting Initiative (GRI) reporting criteria, work-related ill health and commuting injury are not reported under work-related injury category. Hence, the above 2022 LTIR and TRIR are for work-related injury only. There are 4 work-related recordable ill health injuries (employee only) and 1 recordable commuting injury in 2022.

Valuing and Nurturing People

Every day, more than 18,500 employees and contractors dedicate their expertise and talent to the customers, partners, investors and other stakeholders of CLP. The people of CLP translate the goals and strategies of the Group into realities and are the foundations of its success.

Strategic talent resourcing is vital to ensure CLP can keep pace with demand for skills as it transforms into a Utility of the Future. CLP must continue to attract new talent to meet the challenges of a net-zero and digitally enabled future. The Group must also maintain a pipeline of skilled engineers and technicians and ensure their skills are passed on from one generation to the next.

CLP increased recruitment in all markets, especially Hong Kong and Mainland China. Across the two core markets, there was a combined 41% increase in recruitment compared with 2021 as CLP strengthened hiring efforts in renewable energy and energy solutions, as well as core engineering pipelines. The proportion of women hired also continued to rise in line with CLP's long-term aspiration to significantly increase the proportion of women in engineering and leadership roles. To support increased recruitment in Hong Kong, CLP launched a digital platform to greatly improve the recruitment experience for job seekers and managers.

CLP expanded its well-established Hong Kong Graduate Trainee programme, recruiting Hong Kong and Mainland China graduates to join. A new Digital Graduate Trainee programme was also launched to strengthen CLP's efforts to attract digital talent. The programme aims to equip university graduates with capabilities and experience in energy digitalisation across a broad range of business activities from digital product management to data analytics and cybersecurity. Internship programmes were also expanded, and CLP increased support and sponsorship opportunities for students in its university and vocational scholarship schemes in Hong Kong and Mainland China.

CLP China was recognised as the Most Attractive Employer by Shixiseng, a popular campus recruitment platform that provides university students in Mainland China with information on employment opportunities at more than 250,000 companies, including multinationals. The recognition for CLP China followed a comprehensive assessment based on factors including care for the workforce and employee empowerment.

Employees received an average of 46.2 hours of internal and external training and development compared with 51.6 hours in 2021. This was in addition to on-the-job coaching and mentoring, departmental team development activities and career advisory sessions. The training curriculum emphasises technical, business and leadership skills, as well as future-oriented capabilities including digitalisation and Design Thinking. Opportunities were also provided for employees to gain insights into their personal and career development and receive coaching.

Employee Training	Average Training Hours per Employee	% Employees Trained
By Region		
Hong Kong	56.3	99.1%
Mainland China	85.6	95.9%
Australia	11.1	100.0%
India	62.1	94.2%
Group Total	46.2	98.5%
By Gender		
Male	53.6	99.0%
Female	26.0	98.5%
By Professional Category		
Managerial	23.0	95.8%
Professional	33.5	98.8%
General and Technical	63.9	99.3%

Around 50 young engineers with high potential participated in Leaders of the Future development programmes aimed at meeting future managerial needs. The programmes build technical, innovation, project, commercial and change leadership skills at different career stages as well as providing exposure to the Group's regional operations.

Five university graduates participated in the Hong Kong Government's Youth Employment Scheme with support from CLP, gaining insights into the opportunities presented by Hong Kong's further integration into the GBA. More than

50 employees meanwhile participated in training on national affairs, business leadership and management offered by institutions including the Tsinghua School of Economics and Management and the Ivey Business School. Webinars were organised to allow employees to explore renewable energy development in Mainland China and discuss power industry reform. CLP provided increased opportunities for information exchange and enhanced understanding of China's energy market.

CLP also continued to strengthen the capabilities of managers to facilitate and support their teams through business transformation, equipping employees to better manage the energy transition. Leadership competency frameworks were refreshed and relaunched to promote the skills and behaviours needed for a fast-changing business environment. More programmes to accelerate the development of the skills and capabilities of mid-level leaders are planned for 2023.

Organisational Agility and Future of Work

Organisational agility is essential to respond to a rapidly changing energy market and the social and geopolitical uncertainties that continue to affect the business landscape.

CLP implemented a new operating model in 2022 to increase the synergies of its businesses in Hong Kong and Mainland China and sharpen the focus on delivering decarbonisation projects and digitalisation. The new operating model is supported by measures to enhance and streamline corporate governance, speeding up decision-making. Additionally, more agile team structures and working environments continued to be established in all markets to encourage closer cooperation on growth opportunities and to speed up decision making.

CLP continued to focus on initiatives to build skills that increase organisational agility, including Design Thinking and programmes on digital capabilities and innovation. Design Thinking is a methodology intended to nurture a people-centric innovation culture and provide practical problem-solving frameworks for product and service development, with users' needs in mind. More than 4,100 Hong Kong employees have participated in Design Thinking training since its launch in early 2019. Employees have successfully applied Design Thinking in projects ranging from digital transformation and productivity to safety and customer service.

CLP's employees work across diverse locations including offices, plants, outdoor sites and homes. Changes to ways of working have accelerated in response to the pandemic including new ways for employees to connect virtually and work together. Flexible working options have been provided to employees with an increased take-up of new part-time work options and work-from-home arrangements.

Creating a Dynamic Workplace Culture

CLP's long-term success depends on an engaged workforce in an environment in which every employee can have their say and offer suggestions for improvement. Periodical surveys suggest most employees feel proud to work for CLP and are positive about the company's commitment to safety and clear on goals and responsibilities. However, working practices that have served CLP well in the past will need to adapt and evolve to meet future challenges.

The behaviours and ways of working needed to achieve CLP's goal of becoming a Utility of the Future were the focus of engaging discussions among participants of a three-day interactive Culture Jam session held in September for Hong

Kong and Mainland China staff. Thoughts and ideas were exchanged on a range of topics including workplace culture, ways of working and steps to improve the work environment day to day. More than 6,000 employees and contractors joined the Culture Jam and almost two-thirds made active contributions to discussions.

The inputs of participants in the Culture Jam are the foundations for a cultural transformation programme now under way, supporting CLP's new operating model. The programme will include refreshing CLP's Value Framework and initiatives to refine leadership expectations, performance management and pay to reinforce and reward desired new behaviour.

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Case Study

Listening to Employees to Shape Workplace Culture

Respect for employees and their opinions is a longstanding commitment for CLP and a key pillar of the Group's core value of Care for People. As it works to create an inspiring workplace for the future, CLP has turned to its workforce for vital insights on how to build a work environment that supports the continued success of its people and business in energy transition.

In September, employees and contractors across Hong Kong and Mainland China joined Culture Jam, a 72-hour online forum in which participants shared opinions on a wide range of topics from training and process automation to future workplace development, ways of working, and the tools and support they need to succeed in a fast-changing energy market.

Culture Jam was the first online two-way employee engagement exercise of its kind and set out to encourage CLP's people to make their voices heard and shape the culture of the Company. More than 6,000 employees and contractors participated, generating more than 30,000 online comments and likes. The lively online exchanges in English, Cantonese and Mandarin produced fascinating exchanges of ideas between employees across different parts of the business.

Among many topics covered, employees suggested ways to increase cooperation between different business units

and ideas for more agile ways of working. Their input was invaluable at a time when CLP is seeking to realise increased synergies between its businesses in Hong Kong and Mainland China as the energy market requires more diverse low-carbon, digitally connected services and increasing regional integration. The reaction of employees to the experience was overwhelmingly positive, candid and open.

Culture Jam is part of CLP's ongoing efforts to harness and expand the capabilities of its workforce, and to build a more open and collaborative workplace culture that promotes continuous learning and agility, empowering the Group's transformation into a Utility of the Future.



Senior CLP executives join more than 6,000 employees and contractors in a lively online conversation during the Culture Jam event.

Helping People Thrive in Change

CLP is committed to helping people to thrive in change by strengthening workforce wellbeing and resilience, developing more inclusive workplaces, and providing support and reskilling to employees whose work is affected.

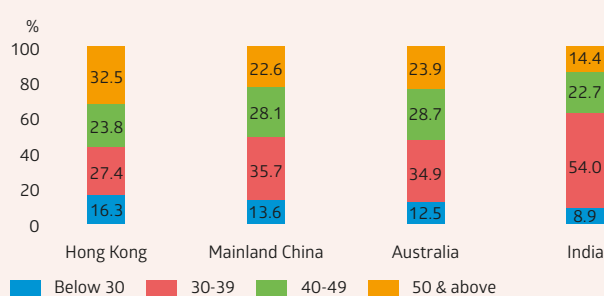
To increase their awareness of and ability to manage mental health and emotional issues in the workplace, senior leaders attended mindset and resilience programmes.

CLP continued to help employees in Hong Kong address housing affordability issues through its Home Loan scheme, which provides financial support for employees seeking to buy a first home. Around 180 employees have received assistance since the scheme was launched in 2019.

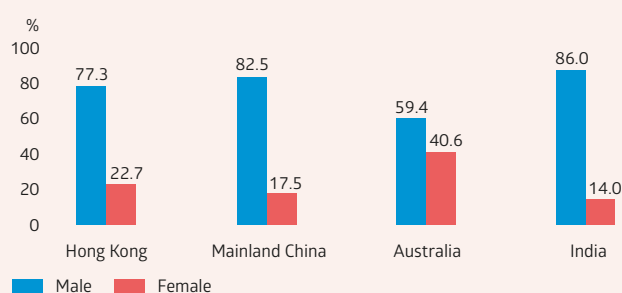
EnergyAustralia in November announced the launch of a Power Your Future programme, a A\$10 million (HK\$52 million) package providing transitional support to workers at Yallourn Power Station ahead of its planned closure in mid-2028. The programme has been designed and launched in partnership with the workforce and includes training to equip leaders with the skills to support their teams through the transition, workshops to explore aspirations and preferences and one-to-one discussions on careers and retraining requirements.

CLP's mentoring programme for female engineering students in Hong Kong has drawn more than 350 participants since its launch in 2015. CLP also began sponsoring underprivileged girls to pursue science, technology, engineering and mathematics (STEM) school subjects through The Women's Foundation's Girls Go Tech programme.

Age Distribution by Region



Gender Distribution by Region



Note: Data of other gender identities is tracked. It is statistically insignificant and is not separately disclosed.

Voluntary Turnover Rate (%)

By Gender

Male	8.6%
Female	14.4%

By Age Group

Below 30	13.7%
30 – 39	13.1%
40 – 49	10.1%
50 & above	5.8%

By Region

Hong Kong	6.6%
Mainland China	2.3%
Australia	18.8%
India	10.6%
Group Total	10.2%

Key Performance Summary

At the end of 2022, CLP had 8,318¹ full-time and part-time employees, compared with 8,116 a year earlier. A total of 4,063 employees was engaged in regulated electricity operations in Hong Kong, 1,554 in other energy-related businesses across Hong Kong and Mainland China, 2,701 in Australia, India, Southeast Asia and Taiwan. Total remuneration for the year ending 31 December 2022 was HK\$6,360 million compared with HK\$6,684 million in 2021, including retirement benefit costs of HK\$630 million compared with HK\$652 million in 2021.

	2022	2021
Total Workforce ²	18,752	17,949
Total Employees ¹	8,318	8,116
Workforce fatalities	0	0
Lost Time Injury Rate ³ (Workforce)	0.10	0.07
Gender Diversity		
– Group Executive Committee ^{4,5}	73% / 27%	69% / 31%
– Employees ^{1,4}	73% / 27%	74% / 26%
– Women in Leadership positions ⁶	29.1%	30.5%
– Women in Engineering ⁷	13.0%	12.3%
Voluntary Turnover ⁸	10.2%	8.1%
New Hires	1,415	1,029
Percentage of employees on permanent contract ¹	86%	87%
Percentage of labour supply ⁹ and service contractors ¹⁰ in workforce	56%	55%
Percentage of employees who received training ¹	98.8%	98.5%
Average training hours per employee ¹	46.2	51.6

Notes:

- 1 Full-time and part-time employees for Group and its subsidiaries. For continuity, figures also include workforce at Apraava Energy, which became a joint venture of CLP Holdings on 20 December 2022 and was no longer consolidated as a subsidiary.
- 2 Includes full-time and part-time employees, labour supply, and estimated service contractors on a full-time equivalent (FTE) basis. FTE calculations are based on the number of person-hours incurred and country-specific average working hours. Figures include workforce at Apraava Energy.
- 3 See note 1 under Total Recordable Injury Rate at Group and Regional Level.
- 4 Male/female ratio. The data of other gender identities is tracked but is statistically insignificant and is therefore not separately disclosed.
- 5 Includes Executive Director (Chief Executive Officer).
- 6 Leadership positions are defined as positions at Korn Ferry Reference Level 19 and above.
- 7 Employees with a bachelors' degree or higher qualification in engineering.
- 8 Includes permanent employees only, except for Mainland China which includes both permanent and fixed-term contract employees due to local employment legislation.
- 9 Labour supply refers to workforce supplied by contractor companies under labour supply agreements. Reporting is based on quarterly averages.
- 10 Estimated service contractors FTE are calculated based on the number of person-hours incurred and country-specific average weekly working hours.

Material Topics



Shaping and executing the transition to net zero



Pursuing energy growth opportunities in our core markets

CLP is working closely with an increasing number of businesses, policymakers, suppliers and technology innovators to build a sustainable energy future and aims to be their **trusted partner in the clean energy transition**. These partnerships are key to support **the investments in clean electricity infrastructure** needed to decarbonise the energy industry and other sectors of the economy as **the regulatory landscape continues to evolve**. To capture opportunities in China, particularly in the GBA, CLP is continuing to **deepen its value proposition with the right partners**. Major initiatives covered in this section include:

- > Partnership between CLP Power and DBS Bank (Hong Kong) Limited (DBS Hong Kong) to increase access to sustainable financing for businesses in Hong Kong
- > Joint venture with Qingdao TGOOD Electric Company Limited (TGOOD) on EV charging infrastructure in the GBA
- > MoU on energy digitalisation between CLPe and the Longhua District People's Government of Shenzhen Municipality

The electricity sector has a pivotal role to play in the transition to a low-carbon economy. As coal-fired generation is gradually phased out, electricity can be used to decarbonise other high-emission industries, including transport and manufacturing. This makes it increasingly important for power suppliers to work with decision makers from different sectors on sustainable energy solutions, enabling increased electrification and improved energy efficiency.

At the 20th National Congress of the Communist Party of China in October, state leaders affirmed the dual targets of reaching peak carbon emissions by 2030 and achieving carbon neutrality by 2060. This favourable policy environment supports the GBA's development as an international centre of innovation that will lead the green transformation of the Chinese economy.

Creating Powerful Partnerships

An increasing focus on sustainable development is opening opportunities for CLP to build new partnerships to support the transition to a low-carbon economy. In 2022, CLP Power teamed up with DBS Hong Kong to launch a sustainable

financing initiative designed to encourage more businesses and organisations to save energy. Preferential financing terms linked to borrowers' energy efficiency performance offer incentives for applicants to save energy. The partnership between CLP Power and DBS Hong Kong helps channel financing for businesses – particularly SMEs – to pursue more sustainable business models and increase investments in energy efficiency. The initiative addresses the issue of how obtaining sustainable financing usually involves onerous application processes, deterring SMEs with limited resources.

Meanwhile, CLP Power and CLPe signed a MoU with ESR HK Limited (ESR) in June to develop sustainable data centres and logistics centres in Hong Kong and other cities in the GBA. The partnership covers project design, construction and operational aspects, with CLP Power and CLPe providing expertise on energy efficiency and energy management.

In an initiative to reduce carbon emissions from the construction sector, CLP Power worked with property companies including Chinachem Group to promote the use of battery energy storage systems (BESS) to replace diesel generators on construction sites in Hong Kong. CLP Power provides comprehensive guidance to developers and contractors and has organised a series of webinars and workshops on BESS installation, application and maintenance. Chinachem Group, which pioneered the use of BESS in construction in Hong Kong, has strengthened its collaboration with CLP Power since entering an agreement in 2019 to cooperate on decarbonisation. The cooperation on BESS between CLP Power and Chinachem Group, which also involved Gammon Construction Limited and Ampd Energy Limited, won the prestigious Innovative Energy Project of the Year International Award from the US-based Association of Energy Engineers in September. CLP Power and Chinachem Group are also working together on technologies including heat pumps, smart lighting and smart kitchens to help reduce the property sector's carbon footprint.

In another project promoting electrification in the Hong Kong property sector, CLP Power worked with developer Wang On Properties to integrate energy efficiency and low-carbon living into the design of a new residential project. Wang On adopted an All-Electric Home concept for its Met. Azure property project, with energy-efficient electrical appliances such as induction cookers and electric ovens fitted in all residential units. The installation of smart meters in all units will provide residents with access to timely power consumption data, while energy-saving equipment including smart lighting and solar energy panels will be installed in common areas. Comprehensive EV charging facilities will also be provided for residents.

Driving Momentum for Green Motoring

CLP continued to strengthen its partnerships in EV charging to support the accelerating pace of electrification in transport. A joint venture to develop EV charging infrastructure in the GBA was formed with TGOOD, China's largest operator of EV charging services with a network spanning more than 300 cities. The partnership is ideally positioned to serve the demand of EV users in China for smarter, cleaner charging, combining TGOOD's market leadership with CLP's expertise in electricity and energy services management.

As electrification plays an important role in the decarbonisation of Hong Kong's transport sector, CLP continued to work closely with users, property managers and businesses on charging infrastructure and services. To help businesses plan the electrification of their vehicle fleets, CLP is providing expertise on power supply arrangement and vehicle operational data analysis, as well as advice on technologies for charging facilities operation and monitoring. With support from CLP Power, The Kowloon Motor Bus Co. (1933) Ltd. installed quick chargers at its depots for a new fleet of electric buses using the existing power supply capacity.

EnergyAustralia and e-mobility company SEA Electric announced a strategic partnership in August to accelerate the transition to clean energy for truck fleets in Australia. The partnership aims to provide SEA Electric customers with end-to-end solutions, including EV charging infrastructure and expert advice on access to rooftop solar energy and batteries. In December, EnergyAustralia formed a partnership with solar energy company Planet Ark Power to provide smart energy charging solutions for the transport industry. Planet Ark Power's proprietary technology for managing solar energy and battery sources will help EnergyAustralia provide charging solutions for EV users with reduced carbon emissions and lower charging costs.

Partnerships for the Energy Transition

EnergyAustralia expanded its partnership with clean energy company Edify Energy to cover two new co-located battery storage projects in New South Wales. Under the agreements reached in April, EnergyAustralia will have rights of dispatch on the 65MW / 130MWh Riverina battery and the 25MW / 50MWh Darlington Point project. The new projects will help safeguard the reliability of power supply by complementing renewable energy. They follow a partnership between EnergyAustralia and Edify on an offtake agreement for the Gannawarra Solar Farm in Victoria in 2017, and collaboration on the nearby 25MW / 50MWh Gannawarra battery energy storage system in 2018. Genex Power's 250MW Kidston pumped hydro storage project in Queensland, underpinned by an offtake agreement with EnergyAustralia, will also

provide additional flexible capacity to support the energy transition when construction is completed in late 2024.

In India, Apraava Energy is on course to expand its energy business at a faster pace after CLP strengthened its successful strategic partnership with CDPQ, following a transaction that resulted in equal ownership of the business for the two shareholders. Since CDPQ first became an investor in 2018, Apraava Energy has made a number of energy transition-related investments. The strengthened partnership provides the business with a stronger platform to capture opportunities in renewable energy, power transmission and other low-carbon, customer-focused energy businesses.

Following the success of the partnership with CDPQ in bringing in new capital, CLP hopes to replicate this model to fund the investments required for the energy transition in other markets.

Tapping New Technologies

CLP continued to pursue partnerships with promising energy innovators from around the world as a member of the Free Electrons accelerator programme, accessing the latest emerging technologies and business models and exploring the potential for customer deployment and commercialisation. The programme enabled CLP to collaborate closely with energy technology companies in Europe and Asia in 2022 on pilot projects involving technologies including cybersecurity and remote power equipment voltage regulation, exploring their potential to improve customer services and enhance operational performance.

CLP worked closely with CYZone, a leading Chinese platform enabling collaboration across technology sectors. The partnership with CYZone created opportunities for CLP to team up with Chinese innovators in technologies including solar energy performance monitoring, weather forecasting and power equipment performance analytics.

CLP also supported technology development in Hong Kong by participating in events including Alibaba JUMPSTARTER and KPMG's Connected Cities conference.

Supporting Governments on Decarbonisation

With the start of a new term of the Legislative Council in Hong Kong in 2022, CLP Power set up meetings with new legislators to build increased understanding of the role of the electricity industry and the company's support for the Hong Kong Government's goal of achieving carbon neutrality before 2050. More than 20 legislative councillors took part in a visit to Black Point Power Station in October, including a tour of the new D1 gas-fired generation unit which has significantly reduced carbon emissions.

In December, sessions were organised for the Board of Directors of CLP Holdings, senior management and employees where Hong Kong Deputies of the 13th National People's Congress Mr Bernard Chan and Dr David Wong Yau-kar as well as Legislative Councillor and Senior Advisor to CLP Mr Chan Siu-hung shared their insights into the latest Five-Year Plan in China set out at the 20th National Congress of

the Communist Party of China in October. The exchange gave senior management and employees a better understanding of the policy environment as CLP pursues growth in the GBA.

Mr Bernard Chan was appointed as an Independent Non-executive Director of CLP Holdings in October. He is also a director of numerous other listed companies and serves in a number of public positions.

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Case Study

Championing Smart Energy at the Heart of the Greater Bay Area

With a population of more than three million, Longhua District is an economic powerhouse in the dynamic city of Shenzhen. Technology giants including Huawei Technologies, Foxconn Technology Group and Meituan have established operations in the district, which is also home to Shenzhen North Railway Station, the largest transport hub in southern China with a rail link enabling travel to Hong Kong in less than half an hour. The Longhua Government forecasts energy digitalisation will grow into a RMB20 billion industry by 2025.

A memorandum of understanding (MoU) on energy digitalisation signed by CLPe and the Longhua District People's Government of Shenzhen Municipality in August will help power the continued growth of the district at the heart of the Greater Bay Area. The District Government is championing clean, innovative energy technologies to build a more energy efficient and digitally connected future and sustain Longhua's continuing development.

CLPe's capabilities in smart energy solutions, including renewable energy, cooling systems and energy storage, put the business in a strong position to support Longhua's digital transformation as the district sets new standards of excellence for energy digitalisation nationally and leads the way in low-carbon, sustainable development across the country.

In the first project in the district, CLPe agreed to provide a distributed solar project in partnership with MTR Corporation (Shenzhen) Limited (MTR Shenzhen). Under

an Energy-as-a-Service model, CLPe will be responsible for the funding, design, construction and maintenance of the system, involving the installation of more than 2,000 solar panels at the customer's Longhua-based headquarters. MTR Shenzhen will benefit from zero-carbon electricity generated by the system and made available at a favourable price. The first phase of the project was commissioned in September, and CLPe and MTR Shenzhen are exploring the possibility of further projects in future.

CLPe will set up its GBA head office in the district, and sees Longhua as a springboard for the business to serve rising demand for smarter, cleaner energy across the region.



CLPe is focused on meeting growing energy digitalisation demand from customers in the Longhua District including MTR Shenzhen.


In July, EnergyAustralia welcomed a delegation from the Sydney Energy Forum – a conference organised by the Australian Government and the International Energy Agency – for a visit to the new Tallawarra B hybrid gas and hydrogen power station currently under construction in New South Wales. The delegation comprised more than 50 policymakers and business executives from Australia and overseas, and the visit was an opportunity to highlight the importance of flexible generation capacity to complement the increase in renewable energy on the electricity market.

Mechanisms for Sustainable Markets

Representatives from CLP attended the 27th United Nations Climate Change Conference (COP27) and spoke at side events related to energy sector decarbonisation. Slow but steady progress was made to firm up the mechanisms for carbon markets by negotiators at COP27, while a historical deal to create a “Loss and Damage” fund to help vulnerable countries cope with destructive climate impacts was announced. Following COP27, directors and senior executives of CLP Holdings were briefed on developments in carbon trading by International Emissions Trading Association (IETA) President and Chief Executive Officer Dirk Forrister.

At the inaugural council meeting of the Climate Action Data Trust, initiated by IETA, the World Bank and the Singapore Government in December, a representative of CLP Holdings attended as an observer. The initiative aims to create a centralised digital infrastructure to share information on carbon credits by connecting the registry systems of voluntary and compliance carbon markets from across all jurisdictions globally.

CLP contributed to two international public consultations on the development of carbon credits. The first was a consultation on the use of carbon credits initiated by the Voluntary Carbon Markets Integrity Initiative, an organisation that aims to promote the development of credible carbon markets. CLP also made a submission in response to a consultation on the draft principles for voluntary carbon credit standards organised by the Integrity Council for the Voluntary Carbon Market, an independent governance body for the voluntary carbon market. The guidance to be released in 2023 by these two initiatives are expected to provide clarity on how carbon offset units could reasonably be applied within the context of a net-zero corporate strategy.

Following a public consultation, the International Sustainability Standards Board (ISSB) announced in October that disclosure of Scope 1, Scope 2 and Scope 3 greenhouse gas emissions and the use of climate-related scenario analysis will be mandatory for companies reporting under the ISSB standards. CLP had earlier submitted a response to the ISSB consultations, after liaising with chambers of commerce, industry organisations and professional bodies. CLP's latest [Climate-related Disclosures Report](#), based on the TCFD's recommendations, also referenced the ISSB's proposed new reporting standards. 

As part of ongoing efforts to advance discussions on policies and practices for decarbonisation in the energy industry and sustainable economic development, CLP Power was a sponsor of Climate Change Hong Kong Summit in June organised by the *South China Morning Post* newspaper. CLP Holdings was a sponsor of the ReThink HK conference in October, an event focused on business sustainability, as well as the Asia Climate Summit organised by IETA in Singapore in December focused on voluntary and compliance carbon markets. In the same month, CLP Power sponsored the Hong Kong University of Science and Technology's Climate Adaptation and Resilience Conference, and the Hong Kong Nuclear Society's forum on the role of nuclear energy in the city's future fuel mix.

In 2022, CLP Holdings became a founding sponsoring partner of the Hong Kong chapter of the Climate Governance Initiative, a programme that aims to drive increased focus on climate issues among company directors, building on principles set out by the World Economic Forum. It is the first local chapter of the initiative in North Asia.

As part of efforts towards a more sustainable supply chain, CLP released a new Supplier Code of Conduct, setting out expectations for suppliers in 11 areas including supply chain management, environmental management, climate change, labour practices and human rights. The code of conduct was developed following consultation of subject matter experts at CLP, with reference to material topics recommended by the Sustainability Accounting Standards Board for different industries.

Material Topics



Shaping and executing the transition to net zero



Reinforcing resilience in a changing operating environment

CLP is committed to working with the communities where it operates across Asia Pacific on decarbonisation as the net-zero transition requires collaboration from every sector of society. The Group's reputation as a **trusted partner in the clean energy transition** has continued to open up more opportunities to increase community participation in climate action, and CLP remains committed to managing the social impact of decarbonisation. Community wellbeing is a key pillar of CLP's efforts to create long-term, sustainable value for stakeholders and **build resilience in the face of climate change and an evolving business environment**. Key initiatives covered in this section include:

- > Timely delivery of digital solutions management system by CLP volunteers to support distribution of anti-virus supplies in severe fifth wave of COVID-19 pandemic in Hong Kong
- > Efforts to promote public awareness on decarbonisation
- > CLP Power Academy's launch of the first Hong Kong-Guangzhou Training Courses for Electrical Workers, in collaboration with Vocational Training Council (VTC) and Guangzhou Industry and Trade Technician College (GITTC)

Working Together for a Low-Carbon Economy

At the COP27 climate change conference in Egypt, countries continued to advance work on Action on Climate Empowerment, a United Nations plan to promote greater participation in climate action across all sectors of society. Sustainable lifestyles are key to reducing greenhouse gas emissions and enhancing resilience to the adverse impacts of climate change, and success will require broad community collaboration.

In 2022, CLP stepped up efforts to engage different community stakeholders to advance the dialogue on decarbonisation and increase collaboration. These community investments help increase societal support and participation in climate action, and enable CLP to build a more sustainable and resilient business.

Leading Community Discourse on Climate

To drive increased public awareness around energy saving and decarbonisation in the community, CLP Power launched a new webpage in August, Save Energy Today for a Low-Carbon Tomorrow, which provides a simple and engaging online educational resource to highlight the importance of concerted action in Hong Kong to combat climate change. In addition to energy-saving tips to help users embrace low-carbon lifestyles, the webpage provides measures to enable customers to increase energy efficiency, in support of the city's goal to achieve carbon neutrality before 2050.

Decarbonisation was also the theme for CLP Power's exhibition at the Hong Kong News-Expo museum, featuring news stories, photographs and videos that highlight the electricity industry's role in tackling climate change. Started in August, the exhibition ran for over five months and showcased CLP's energy saving and low-carbon living initiatives.

The Distribution Box Beautification project helped to inspire the public with CLP Power's vision for a greener, more sustainable future, enabled by the power of art. Students from the Technological and Higher Education Institute of Hong Kong used their talent and creativity to decorate electrical distribution boxes in CLP Power's supply areas with themes including the environment, local culture and landmarks. The artworks offer a multimedia experience, with QR codes printed on the decorated distribution boxes, providing the public with access to an online game about decarbonisation. CLP Power organised visits for schools and community groups to some of the distribution boxes as part of guided tours to the districts where they are located, enabling participants to learn about local history and culture, as well as energy saving. The project was an endorsed programme of the 25th anniversary celebrations for the establishment of the Hong Kong SAR in 2022.

CLP Power teamed up with the Hong Kong Repertory Theatre on the production of Energy Heroes, a drama themed around the metaverse to promote energy saving, decarbonisation and electricity safety. Around 5,000 children and parents from low-income families were invited to six performances of the show at the Xiqu Centre in West Kowloon Cultural District during the Christmas holidays.

Nature-based solutions are also important for addressing societal challenges including climate change. CLP Holdings entered a 10-year partnership with Kadoorie Farm and Botanic Garden Corporation (KFBG) for a native forest restoration programme in Hong Kong. The project supports KFBG with the planting of up to 25,000 native trees of 200 different species or more, along with numerous shrubs and herbs to restore 10 hectares of diverse upland tropical forest in the heart of its nature reserve.

The partnership is expected to lead to a deeper understanding of how nature can be revitalised in degraded tropical landscapes by facilitating the reintroduction of potentially hundreds of species of rare and threatened native plants. Positive knock-on effects are anticipated for pollinators and other wildlife. The project will also provide scientific insights into the role of diverse, new native forests in sequestering carbon. Research from the programme will be shared with community stakeholders including policymakers and academic institutions.

Low-Carbon Education Journey

CLP Power promotes energy efficiency and conservation through a range of education programmes covering the entire education journey from kindergartens to tertiary institutions. To help kindergarten pupils understand more about electricity's role in supporting low-carbon living, CLP Power continued to develop new learning materials, including videos and storybooks, under its POWER YOU Kindergarten Education Kit programme. The Power Kid Mobile App is updated with 3D interface and augmented reality (AR) games to help young children learn about decarbonisation.

Under the Green Elites Campus Accreditation programme, CLP Power organises school talks, green workshops, visits to the company's facilities, and energy audits for primary schools, as well as online education tools on energy conservation. CLP Power's Engineer in School programme encourages secondary school students to save energy and shares information about careers in power engineering, with activities including STEM workshops and visits to the CLP E-Playground.

In June, CLP Power signed a MoU with the VTC to promote energy conservation and carbon reduction by nurturing a new generation of energy management professionals. Under the collaboration, CLP Power provided expert training to VTC students, enabling them to conduct energy audits to identify potential energy-saving opportunities and propose solutions to improve energy efficiency.

Innovative multimedia technologies including 4D movies and AR games provided CLP Power with new ways to raise public awareness about climate change and share information on energy efficiency through its Green Studio educational tours. Since 2009, multi-purpose vehicles from the Green Studio programme have engaged more than 220,000 visitors from primary schools and local communities.

The CLP Power Low Carbon Energy Education Centre at the City University of Hong Kong engaged more than 5,000 visitors through physical and virtual tours in 2022. The centre offers free activities including tours, workshops and talks on low-carbon energy sources including nuclear energy.

Promoting Sustainable Living

More than 800,000 CLP Power customers in Hong Kong have enrolled on the Power Connect programme, a key initiative to promote low-carbon living. Attractive incentives including retail vouchers and dining coupons encourage participating customers to save energy, and the programme also allocated HK\$50 million in 2022 to support people in need, providing HK\$1,000 of electricity subsidies to each of 50,000 eligible households, including elderly people, disabled people, low-income groups and tenants of subdivided units.

CLP Power customers with smart meters can benefit from energy conservation during times of peak power demand in the hot summer months through the Summer Saver Rebate programme. Customers participating in the scheme receive notifications to alert them to save energy during specified times, and will be able to earn reward points by achieving reduction targets for those periods. The reward points can be used to redeem a wide range of energy-efficient appliances as well as retail coupons at CLP's Domeo online store.

In 2022, Domeo introduced CP Label, the first accreditation system in Hong Kong for electrical appliances based on both their energy consumption and operating costs. The system evaluates the annual energy consumption of frequently used appliances including washing machines, air conditioners and refrigerators, as well as their selling price and estimated energy expenses over a five-year period, and will help consumers choose the most energy-efficient and cost-effective products. The list of products carrying the CP label is regularly reviewed and updated with the latest information.

In India, Apraava Energy is working with non-profit SELCO Foundation to install solar-powered community infrastructure including streetlights and power systems for local healthcare centres in villages near the Saundatti and Harapanahalli wind farms in Karnataka state, as well as the Veltor solar farm in Telangana state. These projects followed similar sustainable energy initiatives in communities near Apraava Energy's operations including Jhajjar Power Station in Haryana state, and the Satpura Transco Private Ltd. transmission lines in Madhya Pradesh state.

Apraava Energy teamed up with Watershed Organisation Trust to improve water supply for drought-prone villages near Khandke Wind Farm in Maharashtra, building and repairing more than 200 watershed structures in an area with low rainfall and high water run-offs.

Managing Decarbonisation Responsibly

When it enters service this year, the new offshore LNG terminal in the south-western waters of Hong Kong will connect power generators to more diverse supplies of natural gas from international markets, supporting the gradual retirement of more carbon-intensive coal-fired generators. CLP Power continued its dialogue over the terminal's possible environmental issues with stakeholders including fishermen and community groups. Grants totalling HK\$54.6 million have been provided to 39 projects to enhance the marine environment and sustainable fishery development in southern and western Hong Kong waters, drawn from the Marine Conservation Enhancement Fund and Fisheries Enhancement Fund.

As CLP Power continued to study the potential for offshore wind generation in the south-eastern waters of Hong Kong, engagement meetings were arranged with legislators, major green groups, community leaders, district council members, and fishermen's associations. The stakeholder liaison group set up by CLP Power offers a platform for the exchange of views on different aspects of a possible offshore wind project during its design, construction and operation.

EnergyAustralia continued to investigate the feasibility of its plans for a possible pumped hydro storage project at Lake Lyell in New South Wales. EnergyAustralia is the owner of Lake Lyell and has made it available to the local community for recreational use for many years. The business is committed to ensuring that any project undertaken creates shared benefits for the local community and includes a co-design element to minimise potential impacts.

Building Community Resilience

The wellbeing of the communities served by CLP is crucial to the resilience and sustainability of the business. To support efforts to combat the fifth wave of the COVID-19 pandemic that severely impacted Hong Kong from early 2022, CLP Power utilised its electricity expertise and worked closely with government departments and contractors to provide power supply connections to community isolation and treatment facilities in Kowloon and the New Territories being constructed. Some of the projects involved the laying of new cables and the installation of transformers and ancillary equipment in areas lacking basic infrastructure, presenting major engineering challenges that required careful planning and coordination to fulfil the urgent timeframes for the facilities to enter operations.

In Mainland China, CLP donated RMB300,000 (HK\$371,169) to support local COVID-19 relief efforts in communities near its power plants in Jilin province. In India, Apraava Energy continued with efforts to strengthen community resilience by supporting COVID-19 testing and vaccination programmes near its operations.

Harnessing Technology to Serve the Community

As COVID-19 cases escalated in Hong Kong in the first quarter of 2022, the Hong Kong Community Anti-Coronavirus Link (HKCACL) served a key role in the city's fight to contain the outbreak by distributing urgent health supplies for people to use at home, relieving pressure on medical professionals in public hospitals and clinics.

With generous support from businesses and individuals across Hong Kong, HKCACL secured large inventories of health supplies including test kits, face masks and medication, and recruited more than 5,000 volunteers committed to distribute them to people in need. However, deploying these resources effectively remained a logistical challenge as the unprecedented scale of the fifth wave outbreak in Hong Kong drove a surge in service requests for HKCACL. At this daunting time, digital expertise and dedication from a team of CLP volunteers helped HKCACL carry out its crucial mission.

Using Design Thinking methodology, CLP volunteers worked closely with HKCACL to identify pain points, and made reference to CLP's internal operations to develop a bespoke information system. To meet the needs of HKCACL in the critical pandemic situation, the digital solutions management system was completed by the CLP team in just two weeks, supporting better management of HKCACL volunteer data and inventory, as well as improved handling of incoming requests to the call centre.

"The team hardly slept for two weeks to work on this project, but we are glad that volunteers at HKCACL found our system user-friendly, convenient and useful," said CLP Principal Manager - Transformation Mr Alex Man, who led the development of the digital system.

The technology helped HKCACL automate labour-intensive work including volunteer registration and managing service requests, enabling anti-virus supplies to be allocated efficiently and ensuring inventory records are accurately updated.

"The software platform was an important resource to help HKCACL volunteers deliver anti-virus supplies quickly and effectively to people who needed them. We wish to thank CLP for all your support, not only in your time and money, but also your thinking and knowledge," said Dr Bunny Chan, Chief Convenor of HKCACL.

In addition, CLP volunteers supported HKCACL with packing of anti-virus supplies. CLP Holdings made a HK\$2 million donation for HKCACL to provide personal protective equipment for its volunteers. CLP also worked closely with HKCACL on a communication campaign themed "One Heart, Fight the Virus" to promote solidarity in the community and encourage a positive outlook during the outbreak.



A digital solutions management system developed by CLP volunteers supports the Hong Kong Community Anti-Coronavirus Link in its efforts to distribute vital medical supplies to people in need during the pandemic.

Emerging from the Pandemic

As the public health impacts of the COVID-19 pandemic recede, CLP Power is focused on supporting economic reopening and the resumption of activities in the community. CLP Power worked with non-governmental organisations Hong Kong Young Women's Christian Association and the Evangelical Lutheran Church Social Service to organise a series of community tours for more than 60 elderly people in November. The tours helped the participants reconnect with the community, as the pandemic has left many elderly people isolated. CLP volunteers also prepared goody bags to 1,200 elderly people.

CLP Power also continued to offer digital literacy training to elderly people, providing them with skills to access online services using computers and mobile devices. Almost 200 senior citizens have benefitted from the training since classes started in 2021.

CLP Power worked with 29 NGOs and community partners to distribute nutritious food packages to more than 20,000 children, including SDU tenants. Educational materials were included in the packages on the importance of decarbonisation and energy saving, and CLP volunteers held workshops for some children about clean energy and energy conservation.

CLP Power continued to provide assistance including power rewiring works and electricity meter installations for tenants of SDUs and families in transitional housing, improving their living conditions. In addition, CLP allocated about HK\$14

million to provide nearly 7,000 families living in transitional housing with subsidies of HK\$2,000 each for buying energy-efficient electrical appliances.

EnergyAustralia's Workplace Giving programme provided A\$380,000 (HK\$2 million) to support community services including access to online support for young people experiencing mental health issues, and their families, as well as sustainable housing options for women escaping domestic and family violence. In 2022, the business also offered grants for education, social inclusion, sports and recreational projects in local communities near its plants.

Empowering Young People

CLP is committed to promoting youth development. The Hong Kong Government's new Strive and Rise Programme aims to support the development of junior secondary school students by offering mentorship and financial support. In support of the government initiative, 16 CLP Power staff were nominated as mentors to provide programme participants with professional advice and support via a wide range of activities including visitation to CLP Power's facilities.

Since its inception in 2017, CLP Power Academy has partnered with local and overseas education institutions to offer a wide range of part-time programmes in electrical and mechanical engineering, with over 1,440 students benefitting from its courses. In 2022, CLP Power Academy launched the first Hong Kong-Guangzhou Training Courses for Electrical Workers jointly with the VTC and GITTC, to help electrical workers in Hong Kong equip themselves for working in



CLP Power Managing Director T.K. Chiang serving as a guide to elderly participants visiting a decorated distribution box in one of the tours around Hong Kong organised by the company to promote local culture and energy saving.

the GBA. More than 50 students enrolled for the courses, which are the first of their type, offering in-depth technical training to advance students' professional development and empowering them to capture opportunities from increased regional energy market integration.

In August, CLP Power donated new iPads, laptops, internet mobile WiFi hotspots and data SIM cards to 1,500 primary, secondary, and tertiary students from low-income families to support them with their learning needs.

To help youths in incarceration acquire skills and knowledge, and enable those released from detention to reintegrate into society, CLP Power collaborated with the Correctional Services Department to organise events to provide career guidance and training for 100 young inmates.

In Mainland China, CLP China launched the Knitting for the Community programme, mobilising over 640 volunteers from Hong Kong and the Mainland who dedicated about 3,500 hours to knit over 1,000 handmade clothing and accessories

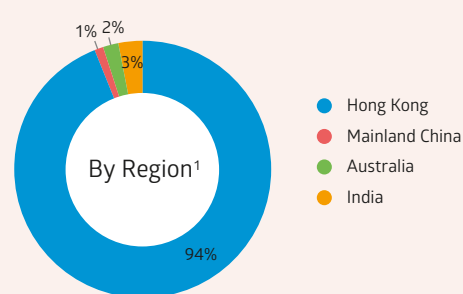
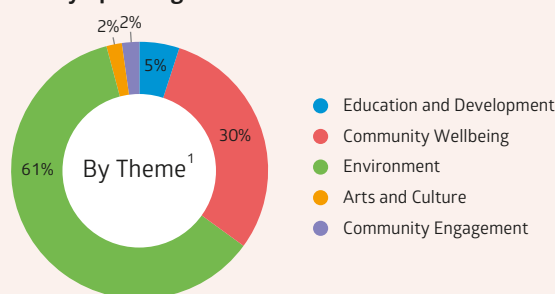
such as scarfs, hats, sweaters, shoes and embroidery insoles. These items were distributed to children and the elderly near CLP's operations.

Apraava Energy is partnering with the Akshaya Patra Foundation on a new midday meal kitchen for school students living near the eastern end of the Kohima Mariani Transmission Ltd. transmission line in Assam state. The kitchen will serve around 25,000 meals a day to nearby schools.

Education programmes supported by Apraava Energy near its plants at Mahidad, Samana and Sidhpur in Gujarat state, and Gale and Tornado in Maharashtra continued to provide life skills training to young people as well as lessons on sustainable agricultural practices to farmers. A women empowerment programme near Jhajar Power Station supported by Apraava Energy provided training to about 3,000 women on topics ranging from entrepreneurship and vegetable growing.

Community Initiatives and Volunteering

Our Community Spending



Impact



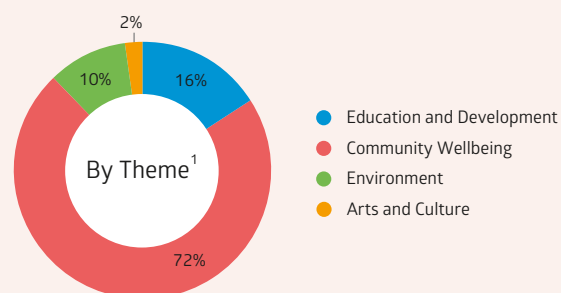
481 programmes
were initiated or supported



280 organisations
benefitted



1,305,738
direct beneficiaries



Contributing Our Time



19,329 volunteer hours
by CLP staff and family members

For more details about the community initiatives of CLP in different regions, please refer to [2022 Sustainability Report](#).

Note:

¹ Figures include rounding adjustments.