



Foundations for a Sustainable Energy Future



2022
Annual Report

Stock Code: 00002



Welcome to CLP's 2022 Annual Report.



2022 was another year of immense challenges for CLP and the markets that we operate in. While COVID-19 restrictions were on the wane, we were faced with the impact of an energy crisis and increased commodity prices resulting from the war in Ukraine. It is against this background that we wish to report to you, our stakeholders, on how we have been managing our business and on our financial and environmental, social and governance (ESG) performance in our Annual Report and Sustainability Report.

Our Annual Report covers and goes beyond discussing CLP's financial performance. It articulates how we create value for our stakeholders, both financial and non-financial, i.e. our broader stakeholder groups. Through the double materiality methodology, the Annual Report discusses the ESG issues that are financially material to us. For reporting and regulatory purposes, our disclosures are well in line with current and emerging frameworks, including the Listing Rules and Corporate Governance Code of the Stock Exchange of Hong Kong, the Global Reporting Initiative (GRI) and the International Sustainability Standards Board.

In the 2022 Annual Report, we have enhanced the way we describe the value creation process. We have used

language that has a stronger relevance to both CLP and our readers while keeping to the principle of "Capitals" laid down by the International Integrated Reporting Framework.

Our Sustainability Report explains our performance on ESG issues that have an impact on people, the environment and the economy as guided by the double materiality methodology. Another key feature of our sustainability reporting is the standalone Climate-related Disclosures Report which sets out our key climate action and commitments.

With that presentation, we hope you will find our reports insightful, meaningful and well balanced.



A Snapshot of
2022 Annual Report



2022 Sustainability
Report



2022 Climate-related
Disclosures Report

FAQs from Our Shareholders

Throughout the year, we receive a range of pertinent questions from our shareholders, many of these are very relevant to our business which readers of our Annual Report may be interested in. These topics are covered in various sections of our Annual Report.

Topics

- 1** Major focus – Geopolitical instability, market volatility and recessionary environment, climate action, investment in our core markets, EnergyAustralia's performance and outlook, dividend outlook and growth strategy

Sections

 - > Chairman's Statement (page 12)
 - > CEO's Strategic Review (page 16)
 - > Financial Review (page 24)
 - > Business Performance and Outlook (page 38)
 - > Stakeholders (page 66)
- 2** Group – Capital allocation, balance sheet capacity and impact of rising interest rates, funding for energy transition, opportunities for renewables investment and new technology, financial and operational performance of the business units, strategy and outlook, progress of emission reduction and phasing out coal

Sections

 - > Chairman's Statement (page 12)
 - > CEO's Strategic Review (page 16)
 - > Sustainability as Our Business Strategy (page 22)
 - > Financial Review (page 24)
 - > Business Performance and Outlook (page 38)
 - > Stakeholders (page 66)
 - > Risk Management Report (page 143)
- 3** Hong Kong – Business and operational performance, capital expenditure and investments for 2024-2028 development plan and growth strategy, tariff pressure from cost of fuel and increased capital expenditure, mitigation measures and potential financial impact of the cable bridge fire, status of the new gas-fired generation unit and offshore LNG terminal, community support measures

Sections

 - > Chairman's Statement (page 12)
 - > CEO's Strategic Review (page 16)
 - > Business Performance and Outlook – Hong Kong (page 40)
 - > Stakeholders (page 66)
- 4** Mainland China – Focus of investments, growth and profitability of renewables, outlook for grid-parity projects, impact of high coal price and the mitigation measures, possible nuclear energy investments, opportunities from China's tightened carbon emissions targets, status of subsidy payments for renewable projects, expansion plans for the Greater Bay Area

Sections

 - > Chairman's Statement (page 12)
 - > CEO's Strategic Review (page 16)
 - > Financial Review (page 24)
 - > Business Performance and Outlook – Mainland China (page 47)
 - > Stakeholders (page 66)
 - > Risk Management Report (page 143)
 - > Financial Statements (Note 19) (page 270)
- 5** Australia – Ability to manage cyclical nature of Australian market, EnergyAustralia's position in CLP's portfolio given volatility of the Australian market, partnership plans, impact of regulation and government intervention on the business, credit rating, operational and financial performance of generation assets, forward selling policy, security of fuel supply, scope and scale of renewable investments, storage and battery capabilities, level of competition, new products and services offerings, price regulation for the related segment

Sections

 - > Chairman's Statement (page 12)
 - > CEO's Strategic Review (page 16)
 - > Financial Review (page 24)
 - > Business Performance and Outlook – Australia (page 53)
 - > Stakeholders (page 66)
 - > Risk Management Report (page 143)
- 6** India – Rationale for valuation and sell down of Apraava Energy, progress of non-carbon investments, profitability and feasibility of growth plan

Sections

 - > Chairman's Statement (page 12)
 - > CEO's Strategic Review (page 16)
 - > Financial Review (page 24)
 - > Business Performance and Outlook – India (page 59)
 - > Stakeholders (page 66)
- 7** Southeast Asia and Taiwan – Cost of coal and tariff mechanism for Ho-Ping power station

Sections

 - > Financial Review (page 24)
 - > Business Performance and Outlook – Southeast Asia and Taiwan (page 64)

Contents

A Snapshot of CLP in 2022

About the CLP Group	4
Financial Highlights	7
Strategic Framework	8
Creating Value for Stakeholders	10

Chairman's Statement

CEO's Strategic Review

Sustainability as Our Business Strategy

Financial Review

Business Performance and Outlook



Hong Kong	40
Mainland China	47
Australia	53
India	59
Southeast Asia and Taiwan	64

Stakeholders



Overview	68
Capital Providers	69
Customers	77
Our People	82
Partners	88
Community	92

Governance

Board of Directors	100
Senior Management	108
Corporate Governance Report	110
Risk Management Report	143
Audit & Risk Committee Report	156
Sustainability Committee Report	164
Nomination Committee Report	170
Human Resources & Remuneration Committee Report	175
Directors' Report	194



Financials

Approaching Our Financial Statements	219
Accounting Mini-series	220
Independent Auditor's Report	223
Financial Statements	232
Five-year Summaries	308

Our Portfolio

Glossary

Information for Our Investors

Thank You

Throughout this report, these symbols will guide you to our other sources of information:



[2022 Sustainability Report](#)



[2022 Climate-related Disclosures Report](#)



[CLP's website](#)

A Snapshot of CLP in 2022

About the CLP Group

The CLP Group is one of the largest investor-owned power businesses in Asia Pacific with investments in Hong Kong, Mainland China, Australia, India, Southeast Asia and Taiwan. Its business spans every major segment of the electricity value chain ranging from power generation, transmission and distribution to retail and smart energy services. To meet the evolving needs of energy users in a world being reshaped by decarbonisation and digitalisation, CLP strives to embrace new opportunities and expand its horizons as it transforms into a Utility of the Future.

	Current Operations	Potential Opportunities
Generation	●	○
Transmission	●	○
Distribution	●	○
Retail	●	○
Smart Energy Services	●	○

Hong Kong

Hong Kong's electricity sector is regulated by the Scheme of Control Agreements and operated by two vertically integrated utility companies that serve different geographical areas of the city. CLP Power Hong Kong Limited, the larger of the two companies and a wholly owned subsidiary of the Group, provides a power supply of over 99.997% world-class reliability to more than 2.75 million customers in Kowloon, the New Territories and most of the outlying islands, serving about 80% of the city's population.

Mainland China

The electricity industry in Mainland China is largely state-controlled. Transmission and distribution are principally operated by two state-owned enterprises while generation is open for investment. As the country continues to open up its energy market, the provision of sustainable energy services to customers also presents great potential for private investments. CLP first entered the market in 1979 when the Group began providing electricity to Guangdong province. Today, CLP China is the largest external investor in the energy sector in Mainland China with over 50 power projects in 16 provinces, municipalities and autonomous regions, concentrating on low-carbon energy, including nuclear power and renewable energy, in addition to opportunities in smart energy services.

Australia

EnergyAustralia is one of the largest privately owned electricity generators under the National Electricity Market (NEM), a major gas and electricity retailer in New South Wales, Victoria, South Australia and the Australian Capital Territory, and an electricity retailer in Queensland. Private generators operating under the NEM and a number of government-owned assets provide generation services in a competitive wholesale market. The electricity retail market is partially regulated while the transmission and distribution segments remain substantially regulated.

2022 Operating Earnings

Total
HK\$4,623 million

Hong Kong energy and related business	India
HK\$8,666 million	HK\$193 million
Mainland China	Southeast Asia and Taiwan
HK\$2,229 million	HK\$11 million
Australia	Other earnings and unallocated expenses
-HK\$5,267 million	-HK\$1,209 million

India

Much of the electricity industry in India has traditionally been owned and controlled by the Federal and State Governments. Since 2006, private companies have been encouraged to invest in the generation and increasingly transmission segments. On the distribution side, the Federal Government has recently progressed initiatives for more privatisation. Since entering the Indian market in 2002, CLP has built a diversified portfolio comprising wind, solar and supercritical coal generating facilities as well as transmission assets, and is foraying into the advanced metering infrastructure segment. The business, in which the Canada-based global investment group CDPQ has a 50% stake, is operated under the Apraava Energy brand with a focus on clean energy, power transmission and other customer-focused energy businesses.

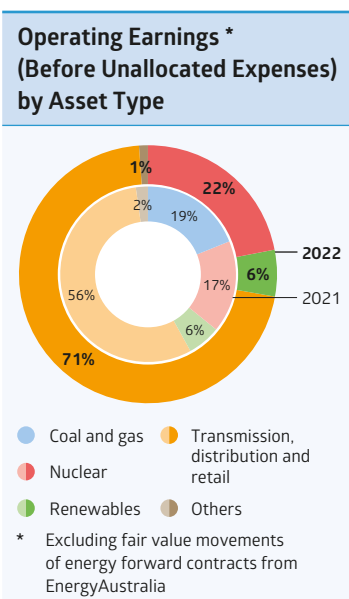
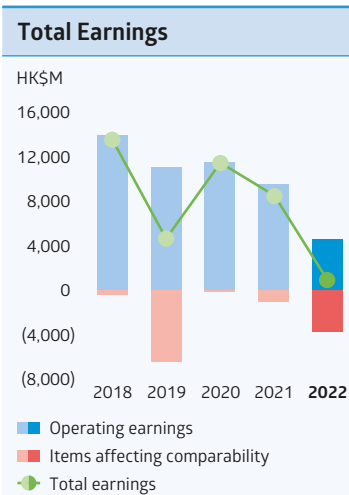
Southeast Asia and Taiwan

CLP has minority interests in a solar project in Thailand and a coal-based generation plant in Taiwan. The electricity industry is government-controlled in both markets.

Financial Highlights

Strong performance in Hong Kong and Mainland China, more than offset by operational challenges from our generation portfolio in Australia, resulting in Group operating earnings (before fair value loss of HK\$2,937 million on energy forward contracts in Australia) reduced by HK\$2,291 million to HK\$7,560 million. Total earnings decreased to HK\$924 million after considering this unrealised fair value loss and items affecting comparability. Dividend is maintained at the same level as in 2021.

	2022	2021	Increase / (Decrease) %
For the year (in HK\$ million)			
Revenue			
Hong Kong electricity business	50,600	44,311	14.2
Energy businesses outside Hong Kong	48,873	38,941	25.5
Others	1,189	707	
Total	100,662	83,959	19.9
Earnings			
Hong Kong energy business ¹	8,403	8,141	3.2
Hong Kong energy business related ²	263	301	
Mainland China	2,229	1,660	34.3
Australia	(5,267)	(83)	(12.7)
India	193	221	(93.6)
Southeast Asia and Taiwan	11	173	
Other earnings in Hong Kong ¹	(65)	(18)	
Unallocated net finance costs	(6)	(9)	
Unallocated Group expenses	(1,138)	(869)	
Operating earnings	4,623	9,517	(51.4)
Items affecting comparability	(3,699)	(1,026)	
Total earnings	924	8,491	(89.1)
Net cash inflow from operating activities	12,734	17,806	(28.5)
At 31 December (in HK\$ million)			
Total assets	236,026	239,809	(1.6)
Total borrowings	59,217	58,215	1.7
Shareholders' funds	105,498	113,034	(6.7)
Per share (in HK\$)			
Earnings per share	0.37	3.36	(89.1)
Dividend per share	3.10	3.10	-
Shareholders' funds per share	41.76	44.74	(6.7)
Ratios			
Return on equity ³ (%)	0.8	7.5	
Net debt to total capital ⁴ (%)	32.0	28.1	
FFO interest cover ⁵ (times)	7	12	
Price / Earnings ⁶ (times)	154	23	
Dividend yield ⁷ (%)	5.4	3.9	



Notes:

- Reflecting our business initiatives in energy and infrastructure solutions in Hong Kong, the 2021 earnings of CLPe have been reclassified from other earnings in Hong Kong to Hong Kong energy business to align with current year presentation
- Hong Kong energy business related includes PSDC and Hong Kong Branch Line supporting SoC business
- Return on equity = Total earnings / Average shareholders' funds
- Net debt to total capital = Net debt / (Equity + advances from non-controlling interests + net debt); debt = bank loans and other borrowings; net debt = debt - bank balances, cash and other liquid funds
- FFO (Funds from operations) interest cover = Cash inflow from operations / (Interest charges + capitalised interest)
- Price / Earnings = Closing share price on the last trading day of the year / Earnings per share
- Dividend yield = Dividend per share / Closing share price on the last trading day of the year

Strategic Framework

Our purpose and strategy

Purpose

CLP provides sustainable energy solutions to create value for shareholders, customers, employees and the wider community. We aim to be the leading responsible energy provider in the Asia-Pacific region, from one generation to the next.

Strategy

Through our values and commitments, we work every day to grow our business and meet our strategic priorities: creating a **sustainable business portfolio**; **accelerating our response to climate change** for our business and the communities we operate in; **servicing growing demand for energy solutions**; **leveraging technology** to deliver leading customer experiences and enhance operating performance; and **investing to build an agile and innovative workforce**.

▶ Read **CEO's Strategic Review** on pages 16 to 20

Double materiality assessment

Material ESG topics:

Financially material

- 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
- Aligning business activities with community, employee and customer expectations

Impact material

Megatrends analysis

▶ Read **Sustainability as Our Business Strategy** on pages 22 and 23

Strategic priorities

Continue to grow a sustainable business portfolio

- ▶ Growing provision of energy solutions in the Asia-Pacific region underpinned by capital discipline

Accelerate our response to climate change

- ▶ Accelerate decarbonisation of CLP's portfolio, reinforce resilience in a changing climate and manage social impact

Serve growing demand for energy solutions

- ▶ Pursue growth opportunities from energy infrastructure, Energy-as-a-Service and customer-facing energy solutions

Leverage technology for experience and performance

- ▶ Deliver leading customer experiences and empower customers in making better energy choices
- ▶ Adopt technologies to enhance operating performance and drive new business

Invest to build an agile, innovative workforce

- ▶ Invest to build organisational agility and develop future skills
- ▶ Support CLP's people to thrive in change, promoting health and wellbeing

How we measure success

Key performance indicators

▶ See **Human Resources & Remuneration Committee Report** on pages 175 to 193 on how remuneration is linked to performance indicators

HK\$924 million Total earnings 2021: HK\$8,491 million	HK\$4,623 million Operating earnings 2021: HK\$9,517 million	HK\$7,832 million Dividends 2021: HK\$7,832 million	87,360 million kWh Electricity sent out 2021: 91,183 million kWh	5.21 million Retail customer accounts in Hong Kong and Australia 2021: 5.15 million	6 cases* Environmental regulatory non-compliance 2021: 5 cases* * See page 310 for details
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0.55 kg CO₂e/kWh
Greenhouse gas emissions intensity
2021: 0.57 kg CO₂e/kWh

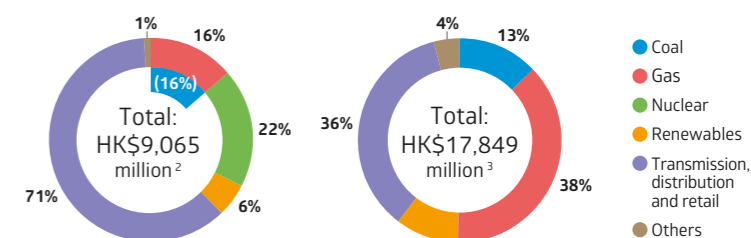
3,611 MW
Renewable energy capacity
2021: 3,624 MW

Resilience projects and investments

- ▶ Climate change adaptation study for CLP Power to strengthen climate risk management
- ▶ Apraava Energy climate risk assessment on potential impacts of changing weather patterns

99.997%
Reliability in Hong Kong
2021: 99.999%

Operating earnings¹ (before unallocated expenses) by asset type



Notes: 1 Any minor discrepancies in totals are due to rounding of figures.
2 Excluding EnergyAustralia's fair value movements.
3 Capital investments in coal assets include maintenance, upgrades, and efficiency improvements only.

Initiatives / investments in new products and services

- ▶ MoU with Longhua District People's Government of Shenzhen Municipality on energy digitalisation
- ▶ Partnership with Venturous Group on smart energy technologies in the GBA
- ▶ MoU with ESR to develop sustainable data centres and logistics centres
- ▶ Joint venture with TGOOD to develop EV charging infrastructure in the GBA
- ▶ Partnership with SEA Electric to accelerate the transition to clean energy for truck fleets in Australia

Adoption of new products and services

- ▶ Distributed solar project at MTR Shenzhen headquarters in Longhua
- ▶ Joint initiative with DBS Hong Kong on sustainable financing for businesses linked to energy efficiency
- ▶ Build Hong Kong's first zero-carbon chiller system at Nina Tower with Chinachem
- ▶ Cooling-as-a-Service contract with SOCAM Development for Shui On Centre in Hong Kong
- ▶ Solar energy systems for shopping centres of Link Properties
- ▶ Hong Kong's biggest EV charging infrastructure project at The Regalia

72
CLP Power customer satisfaction score
2021: 73

-6.9
Net Promoter Score for EnergyAustralia
2021: -6.7[#]

[#] 2021 figure has been restated

Smart meters
over **1.78 million** connected for Hong Kong customers since 2018

over **0.61 million** connected for EnergyAustralia's customers in 2022

Digital adoption

- ▶ Strong growth in digitalisation for CLP Power, with more than 60% of customer account activities conducted through online channels

Feed-in Tariff Scheme in Hong Kong

336 MW
approved or connected to grid since May 2018

Renewable Energy Certificates sales in Hong Kong in 2022
100 GWh

Demand response programmes

over **130 MW** maximum demand reduced in Hong Kong

246.4 MW capacity contracted in Australia

8,318
Employees for CLP Group
2021: 8,116

0.1
Lost time injury rate
2021: 0.07

0.25
Total recordable injury rate
2021: 0.23

46.2
Average training hours per employee
2021: 51.6

29.1%
Women in leadership positions
2021: 30.5%

13.0%
Women in engineering
2021: 12.3%

26.7%
Female employees
2021: 26.3%

41
Graduate Trainees hired in Hong Kong
2021: 32

Creating Value for Stakeholders

How we create value

At CLP, we utilise various capitals to create value for shareholders, customers, employees and the wider community.

Inputs used

Financing

- > Shareholders' funds of HK\$105,498 million
- > Total borrowings of HK\$59,217 million

Risks

- > Financial risk
- > Commercial risk

Resources and infrastructure

- > Generation and energy storage capacity of 17,970 equity MW
- > Long-term capacity and energy purchase agreements of 5,098MW
- > 394,274TJ of coal and 151,327TJ of gas consumed
- > Transmission and high voltage distribution lines of around 16,900 km
- > 15,653 primary and secondary substations in Hong Kong

Risks

- > Operational risk
- > Extreme weather as a result of climate change

Talent and expertise

- > 18,752 employees and contractors in our total workforce

Risks

- > Human resources risk
- > Health and safety

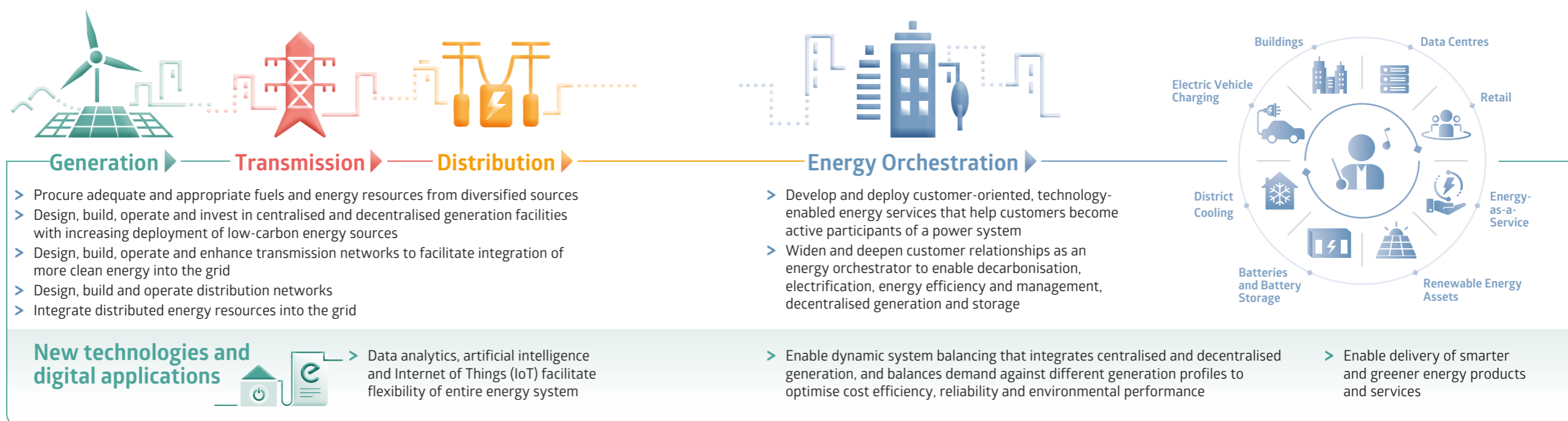
Technology

- > Strengthened technological capabilities to develop Energy-as-a-Service business model
- > Digitalisation of operations
- > Investments in technology companies and funds
- > Partnerships with innovation accelerators

Risks

- > Commercial risk

What we do



We operate in different parts of the energy value chain in each of the markets we are in, tailoring our solutions based on the local context.

- > Procure adequate and appropriate fuels and energy resources from diversified sources
- > Design, build, operate and invest in centralised and decentralised generation facilities with increasing deployment of low-carbon energy sources
- > Design, build, operate and enhance transmission networks to facilitate integration of more clean energy into the grid
- > Design, build and operate distribution networks
- > Integrate distributed energy resources into the grid

New technologies and digital applications

- > Data analytics, artificial intelligence and Internet of Things (IoT) facilitate flexibility of entire energy system

- > Develop and deploy customer-oriented, technology-enabled energy services that help customers become active participants of a power system
- > Widen and deepen customer relationships as an energy orchestrator to enable decarbonisation, electrification, energy efficiency and management, decentralised generation and storage

- > Enable dynamic system balancing that integrates centralised and decentralised generation, and balances demand against different generation profiles to optimise cost efficiency, reliability and environmental performance

- > Enable delivery of smarter and greener energy products and services

Outputs

Competitive funding and attractive financial returns

- > Total dividends of HK\$7,832 million to shareholders
- > Strong liquidity position with access to cost-effective sources of sustainable financing
- > Coal asset divestment to channel more capital to invest in clean energy

Capital Providers

Reliable, reasonably priced and low-carbon electricity supply and sustainable energy solutions

- > Operational resilience and secure energy supply in core markets
- > Stringent cost control to mitigate tariff impact for customers
- > Diversified solutions to help customers improve energy efficiency and reduce emissions

Customers

Safe workplace and career progression

- > Comprehensive measures to safeguard wellbeing of workforce amid pandemic
- > Over 6,000 employees and contractors participated in interactive online forum to shape workplace culture
- > 41% increase in recruitment in core markets of Hong Kong and Mainland China
- > Over 46 hours of internal and external training and development per employee on average

Our People

Contribution to policy, business and economic development

- > Current income tax of HK\$1,649 million
- > Operating costs of HK\$81,806 million
- > Expanding partnerships for low-carbon economic transition
- > Supporting national- to city-level policymaking on decarbonisation

Partners

Positive social impact/ climate action conscious

- > Donations of HK\$10 million
- > Strengthen community wellbeing and resilience as COVID-19 impacts recede
- > Promote public awareness on decarbonisation and energy efficiency
- > Commitment to youth development

Community

CLP's key stakeholders



**+ The Honourable Sir
Michael Kadoorie**
Chairman



Our future is not just one where we are suppliers and producers of energy, but where we provide elevated service to support customers to meet their energy demand, make better energy choices and find solutions to meet their own sustainability targets.

The Honourable Sir Michael Kadoorie

Chairman

Dear Shareholders,

Looking back, the year of 2022 was largely defined by the conflict in Ukraine and its related energy crisis as well as the lingering impact of the pandemic. I speak for everyone at CLP that I sincerely hope that these crises end very soon.

There have been consequences around the world, not least in the energy markets which were already experiencing a period of volatility. With rising inflation and interest rates, this has become one of the most economically challenging years in recent history and we have all been dealing with the impact in varying degree.

However, despite the difficulties, I am proud of our people across the Group who continued to work extremely hard in maintaining a high level of service expected and deserved by the communities we serve. In Hong Kong, where CLP is the largest electricity supplier, we worked closely with government departments during the peak of the COVID-19 fifth wave in early 2022 to provide new power supplies in record-breaking time for the construction and operation of the much-needed community isolation and treatment facilities. This is a display of exemplary dedication.

At the same time, CLP reduced the impact of the energy shocks and other disruptions, thanks to our fuel diversification strategy, long-term planning and solid fundamentals. We have continued to support customers and communities and, wherever possible, to provide protection from the worst of the electricity price rises seen in other parts of the world. Meanwhile we remained focused on our strategy and continued to invest in growth opportunities, underpinned by robust performance in our core markets in Hong Kong and Mainland China.

While the majority of our business has been solid and consistent with 2021, the Group's financial performance was affected by EnergyAustralia's operating loss and an accounting loss associated with the sale of an additional 10% interest in Apraava Energy. As a result, in 2022, the Group's operating earnings decreased 51.4% to HK\$4,623 million, compared with HK\$9,517 million a year earlier while total earnings were HK\$924 million, 89.1% lower than a year ago. The Board, recognising the progress in implementing our strategy and the overall solid performance of the Group, has approved a fourth interim dividend payment for 2022 of HK\$1.21 per share, which is in line with 2021. Total dividends per share for 2022 are maintained at HK\$3.10.



Father and son engineers Joe (left) and John Chan (right) witness the commissioning of the new gas-fired generation unit D1 at Black Point Power Station, epitomising how expertise is passed from one generation to the next at CLP Power to help create a low-carbon future.

We are working with the Hong Kong SAR Government on the Development Plan for 2024 to 2028, the second five-year period of the current Scheme of Control (SoC) Agreement. This is a defining moment as the required investments will represent a key step in Hong Kong's decarbonisation roadmap beyond 2035 and towards the Government's target of achieving carbon neutrality before 2050. Our investments for a decarbonised future will continue to focus on securing reliability, security and stability for customers, and tapping into resources that Hong Kong's closer integration with Mainland China can unleash.

In Mainland China, we have seen strong performance from our renewable energy projects and nuclear power investments. We continued to grow our renewable portfolio as three wind and solar projects with a combined capacity of 280MW broke ground and an agreement to build and transfer another 100MW solar project was reached. During the year, we divested our interest in the Fangchenggang coal-fired power station, in line with our commitment to accelerate the phase-out of coal-based assets from our portfolio.

The energy transition will be demanding and highly capital intensive, and no organisation is capable of delivering it alone. This is why we work so closely with partners, policymakers and other stakeholders and I am proud that this has continued despite the difficulties of the year.

With the further strengthening of our relationship with CDPQ in our business in India, Apraava Energy is now an equally

owned joint venture between CLP and CDPQ. Bringing in a strategic partner has enabled our Indian business to be self-sustaining while having additional resources to pursue a faster pace of growth in non-carbon opportunities. It also supported CLP's strategic priority of investing in the growth of our core markets of Hong Kong and Mainland China. The Apraava Energy story speaks true to our ability to once again execute our strategy well.

In Australia, the second half of 2022 saw a continuation of the operational issues from earlier in the year including the lower generation from Yallourn and Mount Piper power stations that had a significant bearing on the financial performance of EnergyAustralia. EnergyAustralia is bringing forward major outages at Yallourn to 2023 and 2024 to address the ongoing reliability issues while at Mount Piper the main coal supply contract has been renegotiated to include a backup mine. These actions have been taken to restore operational and financial performance.

The Australian electricity market is going through a volatile period of energy transition. Nonetheless the transition requires significant investment, and our existing generation and customer businesses mean we are well placed to take advantage of the opportunity. We have continued to introduce more flexible capacity to support a smooth transition while working with policymakers to secure the best possible environment for doing so. There is great potential for partnership given our existing platform and we continue to explore opportunities in this respect.

In 2022, our approach to tackle the threats of climate change continued to demonstrate its robustness and it is pleasing to note that we remain on track on the targets within our Climate Vision 2050, as we continued to decarbonise our business.

Our approach to provide sustainable energy solutions making use of innovation and our engineering expertise to pave the way for a decarbonised future has also borne fruit. We saw our partnership with Qingdao TGOOD Electric Company Limited being fully realised with the launch of a joint venture to invest in an electric vehicle (EV) charging network in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). Meanwhile, we have moved forward in our partnership with ESR HK Limited on the development of sustainable data and logistics centres in the GBA.

The demand for sustainable energy solutions will only continue to grow along with energy services that give customers greater control over their energy usage. Our future is not just one where we are suppliers and producers of energy, but where we provide elevated service to support customers to meet their energy demand, make better energy choices and find solutions to meet their own sustainability targets. Our strategy to evolve the business into an Energy-as-a-Service (EaaS) model is another example of us looking ahead and preparing ourselves to be sustainable for generations to come.

By investing in an agile and innovative workforce, we are building the team that can thrive through this period of evolution.

2022 heralded some significant changes in our Board composition. Mr William Mocatta retired after more than 30 years on the Board and I would like to record my deep gratitude to him for his invaluable contribution over such a long period. Mr Andrew Brandler has succeeded Mr Mocatta as the Vice Chairman of the Board while Mrs Betty Yuen, who has held a number of senior roles within CLP since she joined us in 1999, has become a Non-executive Director and the Chairman of CLP Power Hong Kong Limited. I would also like to welcome Mr Bernard Chan to our Board.

As we hope for a 2023 of less conflict and more stability, we maintain our primary focus on decarbonisation and sustainable energy solutions in Hong Kong and Mainland China with disciplined presence elsewhere. By investing strategically and in partnership where appropriate, we can deliver against the growth opportunities as we take our business forward into the future.



The Honourable Sir Michael Kadoorie
Hong Kong, 27 February 2023



+ Richard Lancaster
Chief Executive Officer



Our transformation into a Utility of the Future is well underway. Our strategy, underpinned by our core values with a clear path to net zero, is central to how we manage our business regardless of the external shocks and unexpected macroeconomic changes in the current environment.

Richard Lancaster

Chief Executive Officer

We report our 2022 results in the context of an energy crisis that began in Europe before spreading around the world. During the year, we were focused on navigating this landscape at a time when the impact of COVID-19 remained so real, while staying on track with delivery against our strategy to decarbonise and digitalise our operations.

At times such as these we look not just to our strategy but also to our Value Framework, with care for people, customers, community, environment and performance at the centre of not just what we do but how we do it. Just as our strategic priorities have been in evidence in 2022, so too have our core values.

Hong Kong

Our business in Hong Kong is at an important moment as 2023 will see us working with the Hong Kong Government on the Development Plan for 2024-2028. The SoC Agreement is a clear framework for our business in our home market and allows us to invest with the right degree of certainty to ensure we deliver world-class electricity services to customers while working to meet the Government's policy objectives, including the 2050 climate targets.

We believe maintaining investment for the period to 2028 will be important for the city's energy security and reliability, a critical ingredient of which is diversification. That is why CLP has brought nuclear power to Hong Kong across the border since decades ago and recently invested in additional capacity at Black Point Power Station. The offshore LNG terminal, which began construction long before the current energy crisis, will prove

even more strategically significant than initially imagined. The infrastructure underlines the importance of long-term planning in the energy industry where investments often take years to materialise and last for decades. On the other hand, early planning also affords sufficient time for us to repurpose existing facilities as a cost-effective and flexible way to lower emissions, as we pay close attention to the growing potential of hydrogen in facilitating the energy transition.

In line with the increase in invested capital, operating earnings from Hong Kong energy business increased 3.2% in 2022 to HK\$8,403 million.



Due to enter service in 2023, the offshore LNG terminal underlines the importance of long-term planning in the energy industry, further strengthening the security of Hong Kong's energy supply.

At a time of elevated and volatile energy prices globally, Hong Kong is inevitably affected. We understand everyone is concerned about electricity tariff, and we did our best to minimise the impact of rising fuel cost through a fuel diversification strategy in which nuclear energy plays a key role. We also managed to maintain our Basic Tariff at the same level for three years in a row with stringent cost controls measures. Although there was an increase in tariff at the start of the year, it is worth noting that the scale did not reach the magnitude seen in many other parts of the world. In addition, we are providing rebates as well as incentivising some sectors in our community to save energy. The CLP Community Energy Saving Fund has launched a series of initiatives, including the HK\$100 million CLP Fuel Cost Subsidy Programme, to support families in need.

As the largest power company in Hong Kong, customers are our primary focus and our strategy seeks to get better at how we offer them technology-enabled, greener energy services. During the year we continued to invest in the digitalisation of the energy system from smart meters and Feed-in Tariffs to EV charging.

We have announced a collaboration with the Chinachem Group to upgrade the chiller system of its iconic Nina Tower to dramatically improve efficiency and to make it zero-carbon and renewable energy certified. We are working with property company Shui On Group on a similar project and also with real estate investment trust Link Asset Management Limited to bring solar power and battery storage to their buildings. These projects see our strategy in action: in partnership, bringing EaaS at scale to key sites and decarbonising our communities.

In June 2022, a cable bridge fire led to a loss of service and disruption in a few districts, affecting a large number of customers. Our engineers worked tirelessly over the night to restore service in the next morning and we once again would like to apologise for the inconvenience caused. A thorough investigation completed in August 2022 revealed the likely cause was a rare fault in a fluorescent light. However rare, we take such incidents extremely seriously and we have taken on board all the recommendations of the investigation panel. We have also conducted a comprehensive review of our facilities and implemented a series of actions to minimise the chances of such an event occurring again.



CEO Richard Lancaster discusses decarbonisation in the energy industry and sustainable economic development at the Climate Change Hong Kong Summit.

Mainland China

Our business in Mainland China has seen strong performance in 2022 rooted in the non-carbon portfolio. During the year, operating earnings were HK\$2,229 million, a 34.3% increase from a year ago.

Our nuclear investments reported robust performance, providing energy security to Hong Kong in addition to their contribution to the Group's financial performance. In particular, generation at Yangjiang Nuclear Power Station reached a record high as electricity demand continued to grow.

The renewable energy portfolio has continued to deliver steadily. The Qian'an III wind project began commercial operations in March 2022 and other renewable energy projects including the Xundian II and Bobai wind farms have made good progress. All three projects do not rely on government subsidies. At the same time, construction of an 80MW solar project in Jiangsu province has begun while a build-and-transfer agreement for a 100MW solar project in Guangdong province has been signed.

Meanwhile, thermal assets saw higher earnings due to increased tariffs, despite the impact of raised coal prices.

We made further forays into digitally led EaaS projects in 2022, including our collaboration with the MTR Corporation (Shenzhen) Limited on a distributed solar project at its headquarters building in the Longhua District in Shenzhen and our investment in Beijing-based Venturous Group to develop smart energy technology businesses in the GBA.

In line with our focus on zero-carbon projects, we have sold our 70% stake in Fangchenggang Power Station. The transaction will provide us with the capital to accelerate our investment in clean energy projects and keep us on track with our Climate Vision 2050 commitments.

The scale of opportunity in China is huge, as is the level of contributions to the Group. In addition to the financial contribution, the Mainland will play a growing role in the energy security, affordability and sustainability for Hong Kong. Integrated energy systems, underpinned by a diversified strategy, are core to our energy future, especially given the Chinese Government's clear ambition to increase the overall percentage of renewable energy.

Looking ahead, we will continue to focus on the development of new grid-parity renewable energy projects which can play an important role in local security of supply, as well as sustainable energy solutions and strengthened collaboration.

Australia

Our business in Australia continued to be impacted by unprecedented conditions. It has been a more volatile market for some time and a confluence of factors have affected recent performance, including an operating loss of HK\$5,267 million recorded in 2022.

Entering into forward energy contracts is a very well-established and common market and CLP practice. In normal times, this reduces exposure to market volatility and secures earnings in advance, subject to our own generation assets being able to meet the contracted supply. In the case of EnergyAustralia, most of its generation was contracted in advance of the sharp increases in wholesale electricity prices in 2022, meaning the sold contract prices were significantly lower than elevated spot market rates. This coincided with the shortfalls in coal-fired generation at Yallourn Power Station because of unplanned outages, and at Mount Piper Power Station due to less coal than contracted being supplied, resulting in increased costs to settle the forward contracts and a negative impact on EnergyAustralia's financial performance.

In addition, the requirement to mark-to-market forward energy contracts against higher prevailing energy prices resulted in large negative fair value movements at the end of the year, although our position was much improved in December 2022 compared with half a year ago thanks to a moderation in prices. These unrealised losses are based on our open contract positions at a particular point in time and are subject to change.

The performance of our retail business in Australia has improved, delivering growth in the overall number of accounts through higher customer acquisitions and lower churn. We have continued to provide support to customers impacted by higher power costs and cost-of-living issues in addition to the relief measures for those affected by flooding in eastern Australia in 2022. However, the operating environment remains competitive and continues to see a high level of government intervention.

We continue to invest in the transition to a clean energy future with new forms of on-demand generation capacity and flexible assets which play an important role alongside renewables. We have partnered with Edify Energy on two new battery projects in New South Wales and we are studying a grid-scale 500MW battery project at our existing site in Mount Piper.

The construction of a second gas-fired turbine at Tallawarra Power Station in New South Wales remains on track, as is the Kidston pumped hydro storage project in Queensland. The business also commenced planning for the Wooreen battery energy storage system in Victoria and technical investigations for a proposed pumped hydro project have begun at Lake Lyell in New South Wales.

Our focus for the year ahead is on enhancing the performance of Yallourn and the security of coal supply to Mount Piper. Strategically, we are also adding a strong base of flexible capacity to support our presence in the customer market and generation capabilities. This provides a powerful platform for others with investment potential to enter the market in partnership and support Australia's energy transition.

India

After the sale of an additional 10% stake in Apraava Energy to CDPQ, the strengthened strategic partnership enables our Indian business to pursue faster growth in clean energy investments including renewable energy, transmission and smart meters through a strong platform with more capital. However, the successful completion of our sell-down on Apraava Energy has resulted in a loss of HK\$3,537 million.

There has been continued progress on construction of the new 251MW Sidhpur wind project in Gujarat state, a project that is expected to be fully commissioned in the first half of 2023. Apraava Energy continues to explore other renewable energy opportunities.

Overall wind and solar generation dropped compared to 2021 due to lower resources and some one-off operational issues, most of which have been resolved. There were also strong operations at Jhajjar Power Station although contributions were affected by lower capacity charges. In 2022, operating earnings for Apraava Energy decreased 12.7% to HK\$193 million. During the year, overdue receivables from state distribution companies related to the purchase of renewable energy have shown a welcome reduction with the support from a Central Government scheme.

Our transmission assets have brought higher contributions after the addition of a new interstate project and we see plenty of potential for Apraava Energy to further invest in transmission and distribution. In addition, Apraava Energy is foraying into the advanced metering infrastructure business after becoming the most competitive bidder for two projects to install around 3 million smart meters in Assam and Gujarat states.

We recognise the unique challenges and opportunities presented in India's energy transition. Our strengthened strategic partnership with CDPQ gives us an excellent platform to contribute to the transition and achieve further growth.

Focussing on the future, today

Our transformation into a Utility of the Future is well underway. Our strategy, underpinned by our core values with a clear path to net zero, is central to how we manage our business regardless of the external shocks and unexpected macroeconomic changes in the current environment. We can now see a stable core business, on plan, managing specific challenges and ensuring we maintain performance while investing in new opportunities not just to deliver our own energy transition but also support that of others.

The global energy crisis and price volatility have underscored the importance of careful coordination and long-term planning to ensure we maintain our focus on people, customers, community, environment and performance. This is a moment where we need to stay committed to executing a strategy that is designed to drive growth through new opportunities building on our existing strengths and capabilities.

Finally, I want to acknowledge CLP's people across the Group, who have continued to work hard to deliver a better future for customers, shareholders and communities. They have stayed focused on operating CLP's assets safely, serving customers and communities, and supporting each other through very challenging times. I thank them sincerely for their efforts.

These moments of uncertainty demand that we look at our markets in new ways. But we must also view ourselves through new lens: our future growth and success no longer rest solely on the operation of assets or discrete business units in regions, but on an integrated approach with diversification across geographies and through partnership. Our progress on that strategic journey continues.



Richard Lancaster
Hong Kong, 27 February 2023

Ms Rita Shang
Shareholder



Richard Lancaster
Chief Executive Officer

How do you manage the delivery of a long-term strategy in the context of these ultra short-term shocks in the global energy markets?

This is exactly the challenge that society, governments and communities around the world are facing. Climate change requires us to act now to prevent devastating consequences that will come in decades. We need to commit to a long-term strategy of transitioning to net

zero with targets stretching all the way to 2050 despite short-term challenges that often distract us along the way.

We must manage today's global shocks and crises that feel ultra short-term and get measured in months, weeks or even days while also staying committed to our long-term strategy. The reason is simple – today's resilience and the ability to manage short-term shocks are built on long-term vision and approaches formed decades ago. Take our business in Hong Kong as an example, CLP has introduced nuclear power and natural gas back in 1990s with an aim to diversify its fuel mix for electricity generation. Last year, nuclear power with its stable cost played a key role in helping us manage the impact of a global energy crisis and surging fuel prices.

We have already made investments in the long-term energy future including into assets that will help us navigate through future periods of short-term volatility, when they come. That is the key to a successful transition: by investing in decarbonising our business with the aid of technology and in sustainable energy solutions that help customers decarbonise, we're building resilience for tomorrow and well into the future.

Sustainability as Our Business Strategy

CLP's purpose is to provide sustainable energy solutions that create value for its stakeholders, ranging from capital providers and customers to partners, employees and the wider community. Sustainability is at the heart of CLP's decision-making process and underpins the Group's longevity and success in a rapidly evolving business landscape.

The focus on sustainability is driven by an obligation to protect the environment for future generations, an understanding that a business can only thrive if it exercises social responsibility and makes communities stronger, and an appreciation of the importance of good governance based on accountability, honesty and transparency.

CLP conducts annual materiality assessments to review the way in which ESG issues impact its business and stakeholders. The assessments ensure the Group's strategies and goals remain aligned, respond to evolving stakeholder needs, uncover emerging sustainability risks and opportunities, and support transparent reporting.

The Double Materiality Concept

CLP was an early adopter of double materiality, a concept which expands the traditional materiality lens beyond stakeholder impacts to include financial impacts. It means a company should identify and prioritise:

Financially material topics

Issues which create or erode enterprise value. These are addressed in the Annual Report and are intended to offer useful information to providers of financial capital, such as shareholders and debt investors, when they assess enterprise value and decide whether to provide resources for CLP.

Impact material topics

Issues which have significant positive or negative impacts on people, the environment and the economy. They are covered in CLP's [2022 Sustainability Report](#) and address the concerns of a broad range of stakeholders over CLP's positive contributions to and negative impact on sustainable development. 🌱

In 2022, CLP further refined its double materiality assessment process by implementing the latest international best practices. Refinements included a revised methodology for identifying and assessing stakeholder impacts and financially relevant ESG risks and opportunities.

Identifying and Assessing Material Topics

More than 80 impacts, risks and opportunities were identified in CLP's materiality assessment in 2022 based on a wide range of business factors including the Group's strategic priorities, Climate Vision 2050, risk management framework and relevant metrics defined by the GRI and the Sustainability Accounting Standards Board. All impacts, risks and opportunities are related to nine megatrends affecting CLP's business and its operating environment (see megatrends diagram on the right).

Each impact, risk or opportunity was assessed as having either a negative or positive impact on CLP's stakeholders or enterprise value and designated as either actual or potential impacts. The classifications of "high", "transformational" and "extreme" were assigned to impacts, risks or opportunities assessed as having the greatest effect, with "extreme" being the most significant.

The significance of each of more than 60 negative stakeholder impacts or risks was evaluated for its severity and likelihood. A similar method was devised for assessing each of more than 20 positive stakeholder impacts and opportunities, which were assessed for benefit and likelihood.

Impacts, risks or opportunities classified as "high", "transformational" and "extreme" were reviewed by a working group of materiality experts and CLP employees from departments including Group Sustainability, Risk Management, Investor Relations and Corporate Affairs. The process was reviewed and validated by CLP's Sustainability Executive Committee.



Climate change adaptation



Technology as enabler and disrupter



Deglobalisation



Evolving energy business models



Accelerating energy transition



Electrification



Trust and fairness



Future of Work



Data privacy and security

As a result of the materiality assessment in 2022, five financially material topics and 14 related sub-topics were determined. These included one new material topic and two new sub-topics compared to a year earlier.



Shaping and Executing the Transition to Net Zero

Definition: CLP's growth opportunities are focused on its goal of becoming a Utility of the Future. In pursuit of this, CLP is decarbonising its existing assets, investing in clean electricity infrastructure, ensuring the delivery of reliable and affordable energy supply, and acting as a trusted partner for governments, communities and customers in the just transition to a sustainable clean energy future.

- Related sub-topics:**
- > Acting as a trusted partner in the clean energy transition
 - > Investing in clean electricity infrastructure
 - > Responding to evolving regulatory landscapes



Bolstering Energy Security and Reliability*

Definition: The world is facing an energy crisis exacerbated by an uncertain geopolitical environment and supply chain disruptions. Shortages of coal and gas have resulted in assets running at reduced capacity, increasing costs for both CLP and its customers. The Group must balance two vital objectives – providing customers with secure, reliable and reasonably priced energy, and continuing to make rapid progress with its decarbonisation objectives.

- Related sub-topics:**
- > Providing customers with reliable and reasonably priced energy*
 - > Navigating geopolitical instability*



Pursuing Energy Growth Opportunities in Our Core Markets

Definition: Opportunities in China from the energy transition are significant, supported by the Government's commitment to decarbonisation. Building on the strength of its home market of Hong Kong, CLP is accelerating the provisions of diversified sustainable energy solutions on the Mainland – particularly the Greater Bay Area – to capture opportunities in decarbonisation and faster regional energy market integration.

- Related sub-topics:**
- > Creating new earnings streams as other sectors electrify
 - > Deepening CLP's value proposition with the right partners
 - > Deploying customer-facing energy solutions
 - > Developing Energy-as-a-Service business models



Building an Agile and Innovative Workforce

Definition: The success of CLP's strategy will depend to a large extent on the ability of its employees to adapt to evolving industrial, technological and demographic trends. The Group is therefore making investments to attract and retain a diverse, multi-generational and digitally adept workforce capable of navigating change and meeting customer needs. Workplace safety is another key consideration.

- Related sub-topics:**
- > Attracting and retaining future talent
 - > Enhancing technical and digital capabilities
 - > Promoting workplace safety and wellbeing



Reinforcing Resilience in a Changing Operating Environment

Definition: The pandemic, combined with environmental, technological, regulatory and social changes, reinforced the importance of business resilience. CLP recognises the strategic value of anticipating, dealing with and learning from disruptive events, particularly at a time of growing threats from climate change and cybercrime.

- Related sub-topics:**
- > Building resilience in the face of climate change and an evolving business environment
 - > Reinforcing cyber resilience and data protection

* New financially material topics or sub-topics in 2022



The Stakeholders chapter on page 66 focuses on how CLP is addressing the five financially material topics to create value for stakeholders. For more information on CLP's risk management approach, including the consideration of ESG factors, please see the Risk Management Report on page 143.



› Financial Review

Our transformation strategy guides our investments to grow the business sustainably and create value for our stakeholders.

CLP Group's Financial Results and Position at a Glance

Strategy to Become a Utility of the Future

We continue our transformation into a Utility of the Future by focusing on delivering decarbonisation and digitisation of our operations and embracing the opportunities that spring from the Greater Bay Area development, while remaining as a leader in Asia Pacific with a strong network of partners. In 2022, we focused on our core markets of Hong Kong and Mainland China on decarbonising our business with the use of digital technology and provision of sustainable energy solutions. We also pursued diverse clean energy growth opportunities in overseas markets. To ensure CLP remain on track to fulfil our commitment to achieving net zero in 2050, we continue to strengthen our capabilities to build and operate our portfolio.

Progress on the Execution of Our Strategy

In 2022, CLP further progressed its energy transition journey in Hong Kong with the completion of most of the engineering and procurement works of the second CCGT and the construction of the marine jetty and undersea gas pipelines for the offshore LNG terminal. Smart meters have been connected for more than 60% of CLP's residential and small to medium enterprise customers in Hong Kong. In Mainland China, we divested our entire 70% interest in Fangchenggang in November, which will contribute to a significant reduction of the Group's carbon emissions, commenced commercial operations of the Qian'an III wind project and made good progress on two new grid-parity projects (i.e. Xundian II and Bobai wind farms).

Construction of Australia's first net-zero emissions power plant, Tallawarra B, began in the first quarter of 2022. In India, construction of Sidhpur wind farm continued and it was expected to be commissioned by June 2023. The strategic partnership with CDPQ was strengthened upon the sale of an additional 10% interest in Apraava Energy during 2022.

Adequate Resources to Support Our Strategy

Free cash flow represents the cash that can be used by a company after taking care of its operations. It can be used to remunerate equity and debt holders and to grow the business.

While dependable operating inflow from the SoC business remained the key source of funds for our capital investment programme and dividend payment in 2022, our free cash flow was substantially impacted by the futures' margin account requirements and operational challenges in Australia. In line with our decarbonisation strategy, we arranged our major financing activities from sustainable financing sources with environmental, social and governance (ESG) elements to the extent appropriate. Continued effort in strengthening our financial capabilities ensures adequate liquidity is maintained and guard against less predictable business and financial market developments.

Where We Stand

- > Capital investments in cleaner power and energy infrastructure continued to progress
- > Further developed Energy-as-a-Service model including distributed solar project in Shenzhen and strategic partnership with Venturous Group to develop smart energy technology businesses in the Greater Bay Area
- > Earnings from our non-carbon emitting generation portfolio, which accounted for 28% of our generation (including long-term capacity and energy purchase arrangements), amounted to HK\$2,509 million in 2022
- > Backed by strong investment grade credit ratings, adequate liquidity remains to meet the operational needs and support growth

Earnings and Dividends

CLP's Dividends Policy aims to provide reliable and consistent ordinary dividends with steady growth when supported by our earnings whilst ensuring that a solid financial position can be maintained to fund our business growth.

The Group's financial performance and ultimately, the Group's operating earnings are of paramount importance in CLP's ability to stick to the Group's Dividends Policy. Despite the reduction of operating earnings in 2022, CLP kept the dividends at the same level as in 2021 based on the solid performance of its core markets of Hong Kong and Mainland China as well as its robust financial situation, liquidity and positive outlook.

More analysis on the value we created for our shareholders can be found on pages 36 and 37.

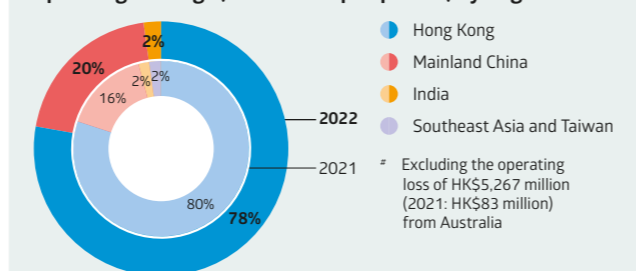
Last Year's Statement of Financial Position	
	2021 HK\$M
Working capital	
Trade and other receivables	15,404
Trade payables and other liabilities	(18,381)
Cash and cash equivalents	8,199
Others	1,380
	<u>6,602</u>
Non-current assets	
Capital assets	
Fixed assets, right-of-use assets and investment property	162,154
Goodwill and other intangible assets	19,710
Interests in joint ventures and associates	19,371
	<u>201,235</u>
Others	4,686
	<u>205,921</u>
Debts and other non-current liabilities	
Bank loans and other borrowings *	(58,215)
Others	(27,599)
	<u>(85,814)</u>
Net assets	<u>126,709</u>
Equity	
Shareholders' funds	
Share capital and other reserves	25,893
Retained profits	92,513
Translation reserve	(5,372)
	<u>113,034</u>
Non-controlling interests (NCI) and perpetual capital securities (PCS)	13,675
	<u>126,709</u>

* Including current and non-current portions

	2021	2022	Change
Closing exchange rate			
RMB / HK\$	1.2234	1.1170	↓ 8.7%
A\$ / HK\$	5.6601	5.2876	↓ 6.6%
INR / HK\$	0.1048	0.0941	↓ 10.2%
Average exchange rate			
RMB / HK\$	1.2057	1.1591	↓ 3.9%
A\$ / HK\$	5.8286	5.4234	↓ 7.0%
INR / HK\$	0.1053	0.0994	↓ 5.6%

Statement of Profit or Loss		
	2021 HK\$M	2022 HK\$M
Revenue	83,959	100,662
Operating expenses	(61,943)	(82,224)
Other charges	(1,110)	(4,312)
EBITDAF of the Group	20,906	14,126
Share of results of joint ventures and associates, net of tax	1,974	2,460
Consolidated EBITDAF	22,880	16,586
Depreciation and amortisation	(9,308)	(8,904)
Fair value adjustments	(497)	(4,250)
Net finance costs	(1,636)	(1,842)
Income tax expense	(1,965)	(103)
Profit for the year	9,474	1,487
Attributable to NCI and PCS holders	(983)	(563)
Earnings attributable to shareholders	8,491	924
Excluding: Items affecting comparability	1,026	3,699
Operating earnings	9,517	4,623

Operating Earnings (Before Group Expenses) by Region



Excluding the operating loss of HK\$5,267 million (2021: HK\$83 million) from Australia

Statement of Changes in Equity		
	Attributable to	
	Shareholders HK\$M	NCI and PCS holders HK\$M
Balance at 1 January 2022	113,034	13,675
Profit for the year	924	563
Exchange differences on translation	(4,280)	(328)
Sale of subsidiaries	2,505	(2,628)
Other comprehensive income and other movements	1,147	11
Dividends and distributions paid	(7,832)	(1,097)
Balance at 31 December 2022	105,498	10,196

Statement of Cash Flows	
	2022 HK\$M
EBITDAF of the Group	14,126
SoC related movements	(2,410)
Working capital movements #	(1,077)
Non-cash items	2,916
Funds from operations	13,555
Interest received	153
Tax paid	(974)
Cash inflow from operating activities	12,734
Capital investments	
Capital expenditure	(14,553)
Additions of other intangible assets	(330)
Investments in and loans to joint ventures	(788)
Acquisition of asset	(338)
	<u>(16,009)</u>
Dividends received and others	627
Cash outflow from investing activities	(15,382)
Net proceeds from borrowings	10,296
Interest and other finance costs paid ^	(1,993)
Dividends paid to shareholders	(7,832)
Dividends to NCI and others	(1,458)
Cash outflow from financing activities	(987)
Net decrease in cash and cash equivalents	(3,635)
Cash and cash equivalents at 1 January	8,199
Effect of exchange rate changes	(313)
Cash and cash equivalents at 31 December	4,251
Free Cash Flow	
Funds from operations	13,555
Less: tax paid	(974)
Less: net finance costs paid ^	(2,303)
Less: maintenance capital expenditure (capex)	(1,524)
Add: dividends from joint ventures and associates	2,326
	<u>11,080</u>
Capital Investments	
SoC capex	10,786
Growth capex	2,980
Maintenance capex	1,524
Other capex	381
Acquisition of asset	338
	<u>16,009</u>

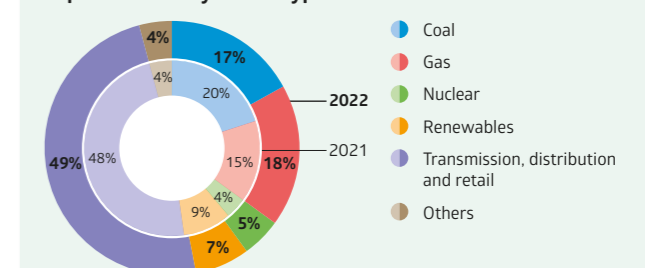
Including the increase in futures margin deposits of HK\$2.5 billion

^ Including distributions paid to PCS holders

This Year's Statement of Financial Position	
	2022 HK\$M
Working capital	
Trade and other receivables	17,314
Trade payables and other liabilities	(19,627)
Cash and cash equivalents	4,251
Others	(624)
	<u>1,314</u>
Non-current assets	
Capital assets	
Fixed assets, right-of-use assets and investment property	155,758
Goodwill and other intangible assets	18,451
Interests in joint ventures and associates	20,838
	<u>195,047</u>
Others	6,518
	<u>201,565</u>
Debts and other non-current liabilities	
Bank loans and other borrowings *	(59,217)
Others	(27,968)
	<u>(87,185)</u>
Net assets	<u>115,694</u>
Equity	
Shareholders' funds	
Share capital and other reserves	27,518
Retained profits	85,099
Translation reserve	(7,119)
	<u>105,498</u>
NCI and PCS	10,196
	<u>115,694</u>

* Including current and non-current portions

Capital Assets by Asset Type



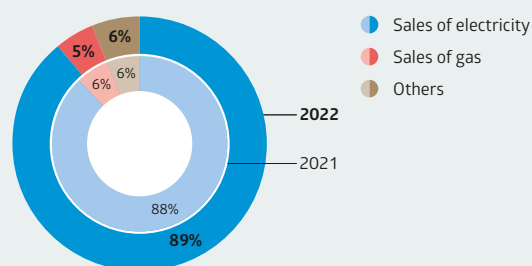
Analysis on Financial Results

Revenue (2022: HK\$100,662 million; 2021: HK\$83,959 million; ↑ 19.9%)

	2022 HK\$M	2021 HK\$M	Increase HK\$M	%
Hong Kong	51,776	44,994	6,782	15.1
Australia	41,839	32,271	9,568	29.6
India	5,153	4,866	287	5.9
Mainland China and others	1,894	1,828	66	3.6
	100,662	83,959	16,703	19.9

- Hong Kong: Surge in fuel prices in 2022 inevitably resulted in the increase of SoC revenue (Fuel Clause Charge). This was slightly offset by lower units sold reflecting reduced consumption from economic slow-down under the pandemic and cooler weather in May 2022; recognition of HK\$421 million from the sale of Argyle Street properties
- India: Excluding the impact of lower Rupees average exchange rate, revenue increased by about HK\$0.6 billion mainly due to full-year revenue contributed by KMTL transmission project, acquired in December 2021, and higher energy charges in line with rising coal prices (though reduced capacity tariff effective April) at Jhajjar power station, partially offset by lower wind and solar generation due to lower wind resource and lower availability of solar farms, respectively, in 2022

Revenues by Nature



- Australia
Excluding the impact of lower Australian dollar average exchange rate of HK\$2.2 billion, revenue increased by HK\$11.8 billion:
 - Energy: Significant increase by HK\$10.3 billion predominately reflected extremely high spot prices under unprecedented market conditions in Australia and slightly higher generation

	2022	2021
Generation (GWh)		
Coal	13,388	14,705
Gas	2,600	1,035
Average pool price (A\$/MWh) *		
Victoria	133.6	44.9
New South Wales	182.2	72.4

* Represented the 12-month average pool prices in relevant states published by Australian Energy Market Operator (AEMO)

- Customer: Revenue up by HK\$1.3 billion mainly due to higher energy rates upon re-contracting with customers, most of which took place in the second half of the year

	2022	2021
Electricity sales (TWh)		
Mass Market	9.3	9.1
Commercial and Industrial	7.4	7.0
Gas sales (PJ)		
Mass Market	32.9	33.0
Commercial and Industrial	4.5	4.2

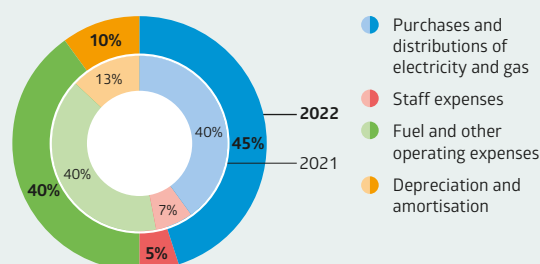
- Mainland China: Increased revenue thanks to the start of operation of Qian'an III wind farm in early 2022 and higher water resource for hydro projects partly offset by the impact of lower Renminbi average exchange rate

Operating Expenses (2022: HK\$82,224 million; 2021: HK\$61,943 million; ↑ 32.7%)

Depreciation and Amortisation (2022: HK\$8,904 million; 2021: HK\$9,308 million; ↓ 4.3%)

- Hong Kong: Surging coal and gas prices resulted in a significant increase in fuel costs

Expenses by Nature



- Mainland China: Depreciation of Renminbi resulted in exchange loss (versus gain in 2021) on dividends and inclusion of loss on sale of Fangchenggang of HK\$185 million in 2022
- Australia: Significant increase in electricity purchases due to elevated wholesale market prices for our retail business, increase in fuel costs due to increased gas generation at higher prices and higher cost for energy derivative contract settlements when there were generation shortfalls
- India: Rising coal prices increased cost of generation in Jhajjar power station; cessation of depreciation since reclassification of our interest in Apraava Energy to assets held for sale in June 2022

Consolidated EBITDAF* (2022: HK\$21,044 million; 2021: HK\$24,499 million; ↓ 14.1%)

	2022	2021	Increase / (Decrease)	
	HK\$M	HK\$M	HK\$M	%
Hong Kong	17,481	17,485	(4)	-
Mainland China	3,907	3,339	568	17.0
Australia	(695)	2,792	(3,487)	(124.9)
India	1,425	1,519	(94)	(6.2)
Southeast Asia and Taiwan	13	183	(170)	(92.9)
Corporate	(1,087)	(819)	(268)	(32.7)
	21,044	24,499	(3,455)	(14.1)

* Excluding items affecting comparability

- Hong Kong: SoC operations remained robust; more energy and infrastructure solutions development expenses and fair value losses of HK\$13 million (2021: gains of HK\$163 million) on innovation funds
- Mainland China: Increased contribution from non-carbon portfolio with strong performance from nuclear projects (in particular, record high generation and higher tariff for Yangjiang), and higher profit from renewable projects (contribution from the newly commissioned Qian'an III wind project and higher hydro resource despite lower wind resource); significant improvement in the performance from coal-fired projects mainly due to increased tariffs (partially offset by high fuel costs on generation) and the absence of the one-off share of loss from Shandong projects in 2021
- Australia: Negative (2021: positive) EBITDAF from the Energy business attributable to lower realised prices (with energy forward contracts previously entered into at prices much lower than 2022 spot prices), lower coal generation and settlements paid to cover energy derivative contract positions under generation shortfalls; higher contribution from the Customer business driven by lower realised energy procurement costs reflecting gains from forward purchasing of electricity against volatile prices
- India: Lower capacity charge received by Jhajjar power project and lower wind and solar contribution due to lower generation partially compensated by full year (2021: one month) contribution from the KMTL transmission project
- Southeast Asia and Taiwan: Significant decrease in the share of profit of Ho-Ping power station due to surging coal prices more than offsetting higher energy tariffs (reflecting the lagging effect of prior year's coal prices in the first half and more timely catch up of prices upon amendment of the energy tariff reimbursement mechanism, effective July); lower Lopburi solar farm's results following tariff reduction under the power purchase agreement since December 2021
- Corporate: Higher transformation and digital related costs

Items Affecting Comparability

	2022		2021	
	Before Tax HK\$M	After Tax & NCI HK\$M	Before Tax HK\$M	After Tax & NCI HK\$M
Hong Kong	39	23	(34)	(34)
Mainland China	(185)	(185)	-	-
Australia	-	-	(1,562)	(1,093)
India	(4,034)	(3,537)	(330)	(148)
Southeast Asia and Taiwan	-	-	307	249
	(4,180)	(3,699)	(1,619)	(1,026)

- Hong Kong: Gain on sales of Argyle Street properties recognised for the first time in 2022 offset by revaluation loss of retail portion of Laguna Mall
- Mainland China: CLP sold its entire 70% interest in Fangchenggang in November 2022 and resulted in a disposal loss of HK\$185 million (Note 5(e) to the Financial Statements)
- India: Triggered by a sale and purchase agreement entered into in July 2022 to sell an additional 10% interest in Apraava Energy to CDPQ at a consideration of Rs6.6 billion, the assets and liabilities of Apraava Energy were classified as held for sale and measured at fair value (with reference to the total consideration) at the end of June. This resulted in the recognition of a measurement loss of HK\$1,635 million (CLP's 60% share: HK\$986 million) in the interim financial statements. The transaction was completed in late December and the Group's equity interest in Apraava Energy was reduced from 60% to 50% and Apraava Energy ceased to be a subsidiary (deconsolidated from the Group) and became a joint venture of the Group (deemed acquisition of joint venture) at fair value. As a result, additional loss totalling HK\$2,677 million, representing realisation of losses deferred in reserves (mainly translation) to profit or loss of HK\$2,505 million upon deconsolidation and the subsequent changes in net asset value in Apraava Energy from initial reclassification to asset held for sale till deconsolidation (HK\$172 million), was recognised. These were recognised as "other charges" in the profit or loss. Please refer to Note 4(a) to the Financial Statements for more details on the sell down

In addition, a related adjustment of HK\$278 million (after tax and NCI: HK\$126 million) which represented cessation of depreciation once Apraava Energy was reclassified to asset held for sale by end of June till completion of sell down, according to HKFRS 5, was included

Fair Value Adjustment (2022: HK\$4,250 million; 2021: HK\$497 million)

Predominantly related to unfavourable fair value movements of EnergyAustralia's energy derivative contracts which do not qualify for hedge accounting according to the accounting standard, as a result of the significant escalation in forward electricity prices impacting our net sold position at year end.

Surge in electricity prices in spot and forward markets in Australia

The challenging market conditions in Australia, namely high fuel prices, generator reliability issues and adverse weather events, resulted in an unprecedented suspension of spot market trading in June 2022 following interventions from the AEMO. The wholesale electricity prices remained volatile at higher-than-historical average levels throughout the year. There was moderation of forward prices when the Australian Government passed a law to temporarily cap energy prices across certain states in mid December 2022. However, the forward prices at this year end remained higher than that of 2021. The lower forward prices at the end of 2022 as compared to June 2022 explained the reduction in the unrealised fair value loss in the second half of the year.

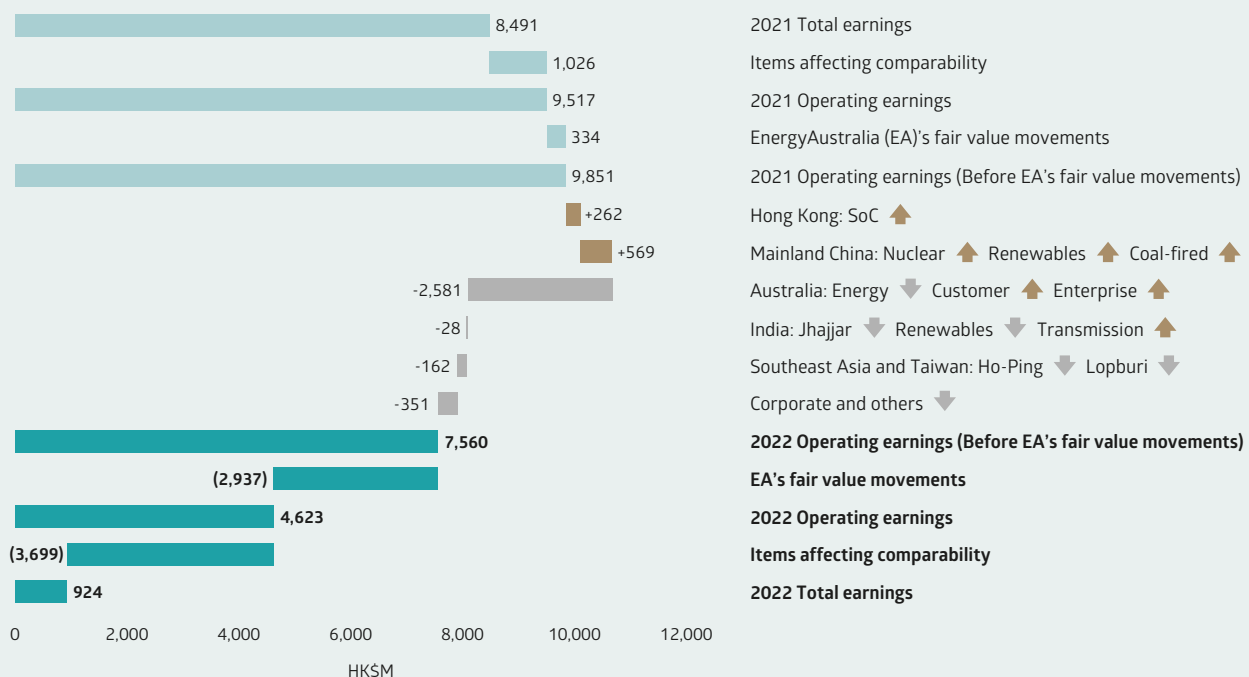
When we marked-to-market our energy forward contracts at the balance sheet date, it resulted in considerable unfavourable / favourable fair value movements (i.e. difference between the exceptionally high forward electricity prices prevailing in the market and the contract prices fixed under the energy derivative contracts) for sold / bought energy hedging contracts.

Income Tax Expense (2022: HK\$103 million; 2021: HK\$1,965 million; ↓ 94.8%)

	2022 HK\$M	2021 HK\$M	Increase / (Decrease)	
			HK\$M	%
Hong Kong	1,893	2,040	(147)	(7.2)
Mainland China	356	329	27	8.2
Australia	(2,303)	(524)	(1,779)	
India	155	52	103	198.1
Southeast Asia and Taiwan	2	68	(66)	(97.1)
	103	1,965	(1,862)	(94.8)

- Hong Kong: Lower tax expense mainly due to lower basic tariff revenue from lower units sold and the tax deduction allowed for the special rebates paid
- Mainland China: Excluding the impact of the lower average Renminbi exchange rate, the increase was mainly in line with better operating performance
- Australia: The operating loss and the unrealised fair value loss of the energy forward contracts attributed to the significant increase in tax credit
- India: Despite lower tax on lower profits, the increase in tax expense was mainly due to the inclusion of one-off deferred tax expense on the depreciation of the fixed assets held for sale in 2022 and the tax credit relating to the impairment provision in 2021

Total Earnings (2022: HK\$924 million; 2021: HK\$8,491 million; ↓ 89.1%)
Operating Earnings (2022: HK\$4,623 million; 2021: HK\$9,517 million; ↓ 51.4%)



The performance of individual business is analysed on "Business Performance and Outlook" on pages 38 to 65.

Analysis on Financial Position

Fixed Assets, Right-of-Use Assets and Investment Property (2022: HK\$155,758 million; 2021: HK\$162,154 million; ↓ 3.9%)
Goodwill and Other Intangible Assets (2022: HK\$18,451 million; 2021: HK\$19,710 million; ↓ 6.4%)

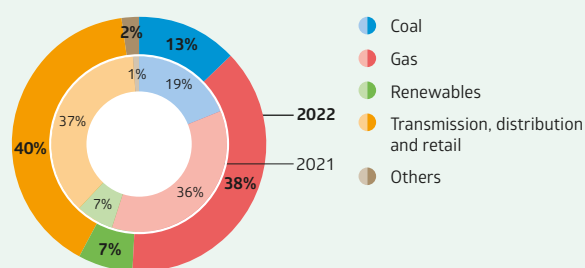
	Fixed Assets, Right-of-Use Assets and Investment Property HK\$M	Goodwill and Other Intangible Assets HK\$M	Total HK\$M	Breakdown	
				SoC Assets HK\$M	Non-SoC Assets HK\$M
Balance at 1 January 2022	162,154	19,710	181,864	124,353	57,511
Additions	15,525	330	15,855	12,097	3,758
Measurement loss and reclassification to assets of disposal group #	(10,954)	(13)	(10,967)	-	(10,967)
Depreciation and amortisation	(8,199)	(705)	(8,904)	(5,313)	(3,591)
Translation differences and others *	(2,768)	(871)	(3,639)	(295)	(3,344)
Balance at 31 December 2022	155,758	18,451	174,209	130,842	43,367

Loss on measurement of Apraava Energy (HK\$1.6 billion) at fair value was allocated to fixed assets with remaining fixed assets balance (HK\$9.3 billion) reclassified to assets of disposal group held for sale at the end of June 2022; subsequent changes in fixed assets were recognised in assets of disposal group held for sale

* Mainly depreciation of Australian dollar and Renminbi and disposal of fixed assets

- SoC: Invested HK\$6.1 billion mainly to progress the construction of the two mega projects (i.e. the second CCGT unit and offshore LNG terminal) and another HK\$6.0 billion for development / enhancement of the transmission and distribution networks (e.g. establishment of substations for data centres) and installation of smart meters
- Mainland China: Mainly development of new renewable projects including Xundian II and Bobai wind farms
- Australia: HK\$2.3 billion additions mainly related to building a net-zero emissions power plant in Tallawarra ("Tallawarra B"), continuous improvement works on existing generation plants (mainly Yallourn and Mount Piper) and software for digitisation of operations
- India: Continued the construction of Sidhpur wind farm

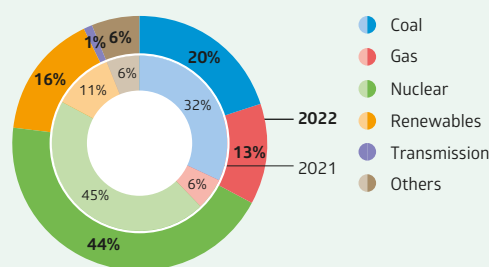
Capital Additions by Asset Type



Interests in Joint Ventures and Associates (2022: HK\$20,838 million; 2021: HK\$19,371 million; ↑ 7.6%)

- Hong Kong: Shareholder's loan of HK\$737 million made to HKLTL (LNG Terminal joint venture) in 2022 for the continuous construction of jetty
- Mainland China: Sale of our entire interest in Fangchenggang (HK\$2.1 billion at 2021 year end) and translation loss from Renminbi on our interests in joint ventures and associates
- India: Represented the 50% interest in Apraava Energy (marked at fair value of HK\$3.1 billion) which was deemed "acquired" by CLP upon completion of the 10% sell down
- Southeast Asia and Taiwan: Mainly depreciation of New Taiwan dollar

Interests in Joint Ventures and Associates by Asset Type



Derivative Financial Instruments

Assets (2022: HK\$4,050 million; 2021: HK\$3,482 million; ↑ 16.3%)

Liabilities (2022: HK\$6,715 million; 2021: HK\$2,666 million; ↑ 151.9%)

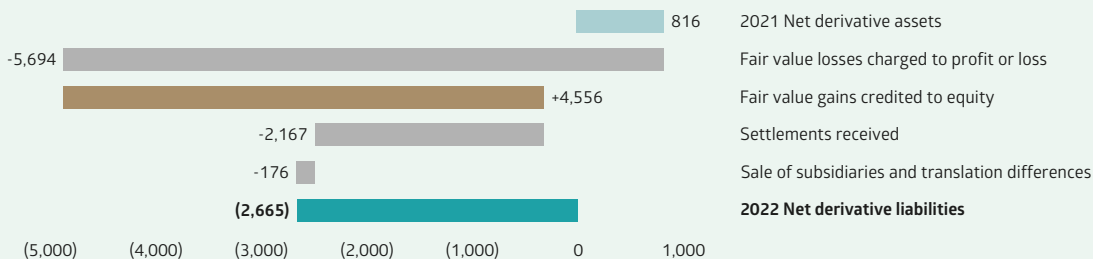
Derivative financial instruments are primarily used to hedge foreign exchange, interest rate and energy price risks. At 31 December 2022, the fair value of these derivative instruments was a net deficit of HK\$2,665 million, representing the net amount payable if these contracts were closed out at year end.

- Hong Kong: Increase in loss for fuel purchase-related forward contracts under cash flow hedges mainly due to depreciation of USD against HKD in forward markets and recognition of fair value loss of cross currency interest rate swaps related to the new JPY loan in 2022
- Australia: Mainly significant increase in fair value loss of electricity futures contracts for the Energy business (i.e. sold energy contracts), which provided flexibility and protection against uncertainty but did not satisfy the highly probable threshold required for hedge accounting, due to the higher forward electricity prices

	Notional Amount		Derivative Assets / (Liabilities)	
	2022	2021	2022	2021
	HK\$M	HK\$M	HK\$M	HK\$M
Forward foreign exchange contracts and foreign exchange options	32,518	28,973	(267)	(30)
Interest rate swaps and cross currency interest rate swaps	32,011	35,295	(1,370)	(934)
Energy contracts #				
Not qualified for hedge accounting			(3,581)	(162)
Cash flow hedges			2,553	1,942
			(2,665)	816

The aggregate notional volumes of the outstanding energy derivatives at 31 December 2022 were 333,062GWh (2021: 311,808GWh) and 11 million barrels (2021: 7 million barrels) and 1,919TJ (2021: 4,382TJ) for electricity, oil and gas respectively.

Movements in Derivative Financial Instruments (HK\$M)

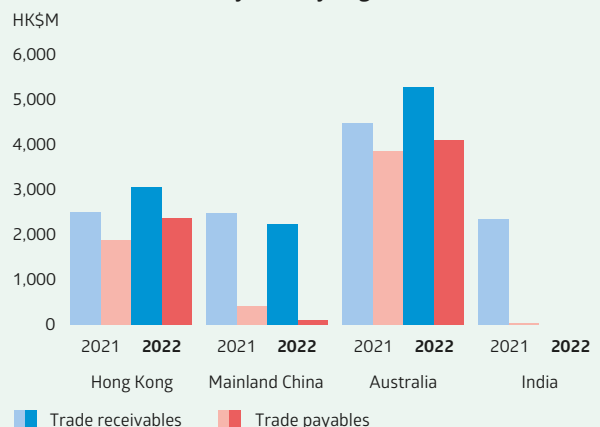


Trade and Other Receivables (2022: HK\$17,314 million; 2021: HK\$15,404 million; ↑ 12.4%)

Trade Payables and Other Liabilities (2022: HK\$19,627 million; 2021: HK\$18,381 million; ↑ 6.8%)

- Hong Kong: About 20% increase in debtor balance reflecting higher fuel costs charged to customers; substantial increase in capex liabilities in line with the progress of mega projects and higher fuel purchase-related payables from higher fuel prices
- Mainland China: Better collection of national subsidies for renewable projects resulted in improved receivable position; other receivables increased significantly due to the inclusion of the consideration receivable from the sale of Fangchenggang of HK\$1.7 billion partly offset by lower dividend receivables
- Australia: Increase in futures margin account by HK\$2.3 billion to cover the short position on open derivative contracts (consistent with the fair value loss); higher electricity and gas debtors in line with higher sales; payables remained at similar level as the higher payables for electricity purchases (at higher prices) and higher green liabilities (from higher sales) were largely offset by the impact of lower annual incentive provision and the impact of lower closing exchange rate
- India: Nil balance upon deconsolidation of Apraava Energy in 2022 (2021: receivables of HK\$2.6 billion and payables of HK\$0.4 billion)


Trade Receivables / Payables by Region



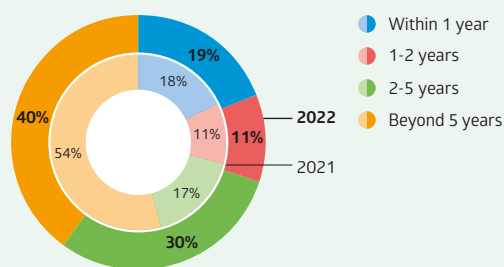
Analysis on Financial Position (continued)

Bank Loans and Other Borrowings (2022: HK\$59,217 million; 2021: HK\$58,215 million; \uparrow 1.7%)

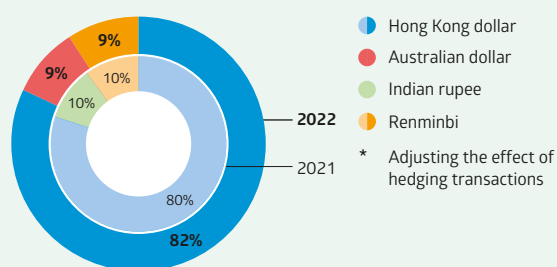
- > Major new financing activities in the year:
 - Hong Kong: To finance the progress of mega projects, CAPCO drew down HK\$1.7 billion from its export credit loans (for LNG terminal) and HK\$1.4 billion commercial loans (for second CCGT unit) facilities; and CLP Power arranged a JPY15 billion (HK\$1 billion) emission reduction-linked banking facility
 - Mainland China: RMB2.2 billion (HK\$2.5 billion) project loan facilities arranged to finance the development of two new wind projects and refinance existing debt with tenor extension and lower interest rate
 - Australia: Upsized revolving bank debt facility to A\$750 million (HK\$4.0 billion) in April and obtained an additional A\$1 billion (HK\$5.5 billion) credit facility to boost its liquidity and meet operation needs
- > Net debt to total capital ratio increased from 28.1% to 32.0% driven by increased net debt to finance EnergyAustralia's cash flow requirements and reduced capital from the loss attributable to EnergyAustralia in 2022
- > During the year, Standard & Poor's and Moody's affirmed all the credit ratings of CLP Holdings (A and A2), CLP Power (A+ and A1) and CAPCO (AA- and A1) with stable outlooks; In December 2022, Moody's assigned an inaugural Baa2 credit rating to EnergyAustralia with stable outlook

 More details of financing activities and credit ratings can be found on pages 73 to 76.

Loan Balances by Maturity



Loan Balances by Currencies *



* Adjusting the effect of hedging transactions

Analysis of Financial Obligations

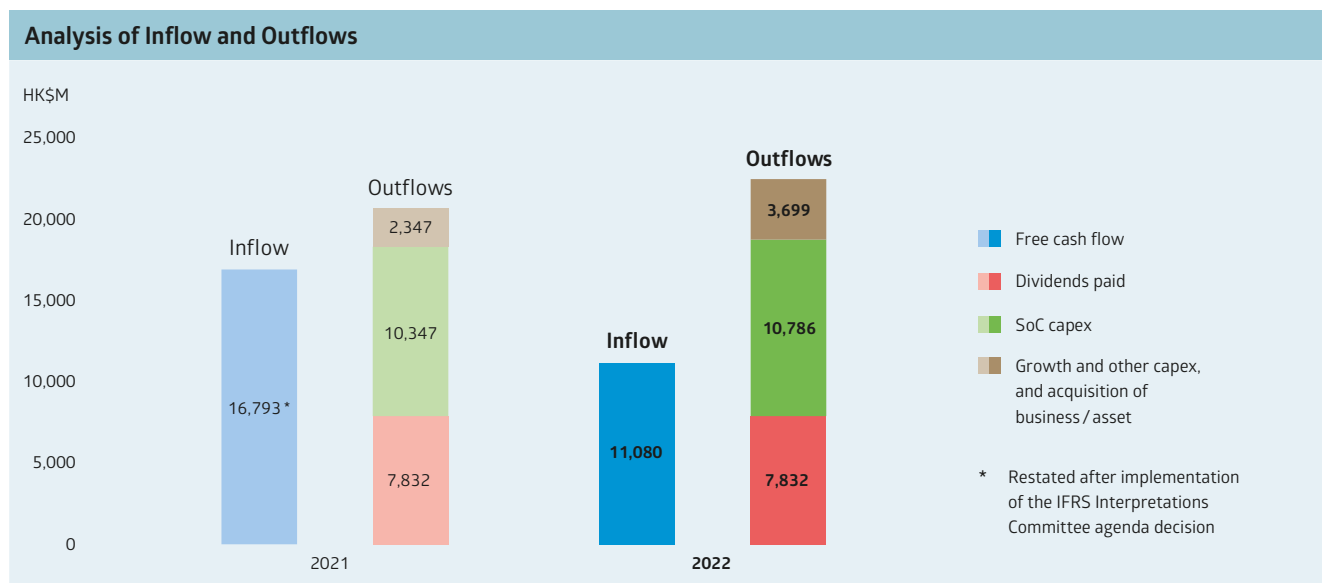
Consolidated financial statements are prepared to show the effect as if the parent and all of its subsidiaries were one entity by consolidating their financial statements on a line-by-line basis. In contrast, under the equity method of accounting, interests in joint ventures and interests in associates are accounted for on the basis of proportionate sharing of net assets (i.e. assets minus liabilities). As a result, the debts of our joint ventures and associates are not included as part of the debts shown in our consolidated statement of financial position. To enhance the transparency to readers, the diagram below illustrates the financial obligations of the CLP Group, as well as those of our joint ventures and associates.

			2022 HK\$M	2021 HK\$M
CLP	Consolidated	Debts of CLP Holdings and Subsidiaries	59,217	58,215
	Equity Accounted	Share of Debts of Joint Ventures and Associates	12,849	15,168
			+	
			72,066	73,383

Debts of subsidiaries are non-recourse to CLP Holdings.

These debts are non-recourse to CLP Holdings and its subsidiaries. The share of debts is calculated by reference to the Group's shareholdings in the relevant joint ventures and associates.

Analysis of Cash Flow



Free Cash Flow (2022: HK\$11,080 million; 2021: HK\$16,793 million*; ↓ 34.0%)

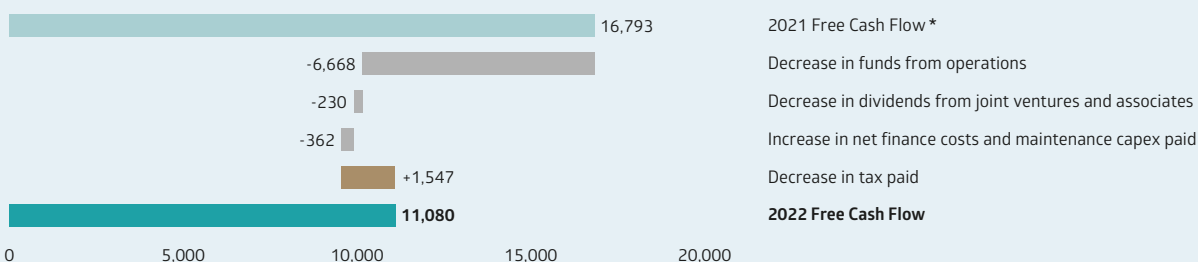
> Free cash flow decreased by HK\$5.7 billion because of:

- Hong Kong: Lower funds from SoC operations by around HK\$3 billion primarily due to lower basic tariff revenue from reduced units sold, increase in under-recovery of fuel costs from customers, and a special rebate (to alleviate the burden on customers) of HK\$715 million paid in 2022; offset by lower tax payment by HK\$0.9 billion
- Mainland China: Improvement in collection of national subsidies (+HK\$424 million); dividend from nuclear associates remains strong
- Australia: Negative cash flow from operations of HK\$2.9 billion (2021: positive of HK\$1.7 billion) largely attributable to higher cash deposits made to the futures margin account (-HK\$1.1 billion) and operational challenges for both Energy business (low generation) and Customer business (high energy procurement costs)
- Southeast Asia and Taiwan: Lower dividend received from OneEnergy Taiwan (-HK\$401 million) as Ho-Ping power station was negatively impacted by the rising coal prices

> Capital investments include:

- HK\$10.8 billion of SoC capex for progress of construction of low-carbon emitting generation facilities, development / enhancement of the transmission and distribution networks and smart meter installation
- HK\$3.0 billion of growth capex related to our renewable projects in Mainland China and India (up to deconsolidation in late December), and development of Tallawarra B in Australia
- Acquisition of business /asset mainly related to the prepayment paid for the new head office at Kai Tak of HK\$338 million

Movements in Free Cash Flow (HK\$M)



* The 2021 figure has been restated after implementation of the IFRS Interpretations Committee agenda decision (Significant Accounting Policy No. 2(A) of the Financial Statements)

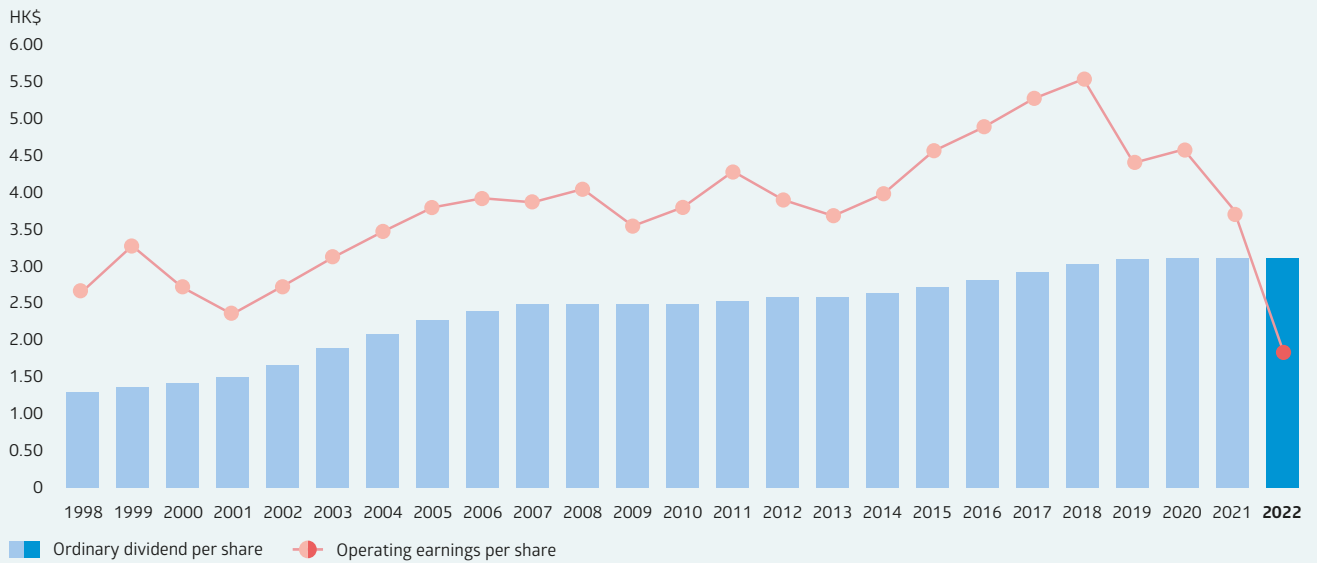
Broader Perspective

	2022	2021	2020	2019	2018
Performance Indicators					
EBITDAF ¹ (HK\$M)	16,586	22,880	25,254	18,656	28,571
ACOI ² (HK\$M)	11,862	15,191	16,899	17,002	20,998
Operating earnings (HK\$M)	4,623	9,517	11,577	11,121	13,982
Total earnings (HK\$M)	924	8,491	11,456	4,657	13,550
Return on equity (%)	0.8	7.5	10.5	4.3	12.4
Operating return on equity ³ (%)	4.2	8.5	10.6	10.4	12.8
Financial Health Indicators					
Undrawn facilities (HK\$M)	31,633	28,076	25,737	18,854	24,059
Total borrowings (HK\$M)	59,217	58,215	54,348	52,349	55,298
Fixed rate borrowings to total borrowings (%)	52	61	63	54	53
FFO interest cover (times)	7	12	13	12	13
FFO to debt ⁴ (%)	23.1	36.4	45.8	43.7	47.2
Net debt to total capital (%)	32.0	28.1	25.1	26.7	25.5
Debt / Capitalisation ⁵ (%)	41.2	29.3	30.0	25.3	24.7
Shareholders' Return Indicators					
Dividend per share (HK\$)	3.10	3.10	3.10	3.08	3.02
Dividend yield (%)	5.4	3.9	4.3	3.8	3.4
Dividend payout ⁶ (%)	169.4	82.3	67.7	70.0	54.6
Total return to shareholders ⁷ (%)	2.6	5.8	5.2	8.7	9.6
Price / Earnings (times)	154	23	16	45	17
Price / Operating earnings ⁸ (times)	31	21	16	19	16
Cash Flows and Capital Investments					
FFO (HK\$M)	13,555	20,223	24,418	23,502	26,584
Free cash flow ⁹ (HK\$M)	11,080	16,793	20,418	20,027	21,766
Capital investments (HK\$M)	16,009	14,163	11,691	11,861	12,045
Capital expenditure	14,553	12,431	10,586	10,448	10,327
Investments in joint ventures and associates, and additions to intangible assets	1,118	731	909	1,197	515
Acquisitions of subsidiaries/assets	338	1,001	196	216	1,203

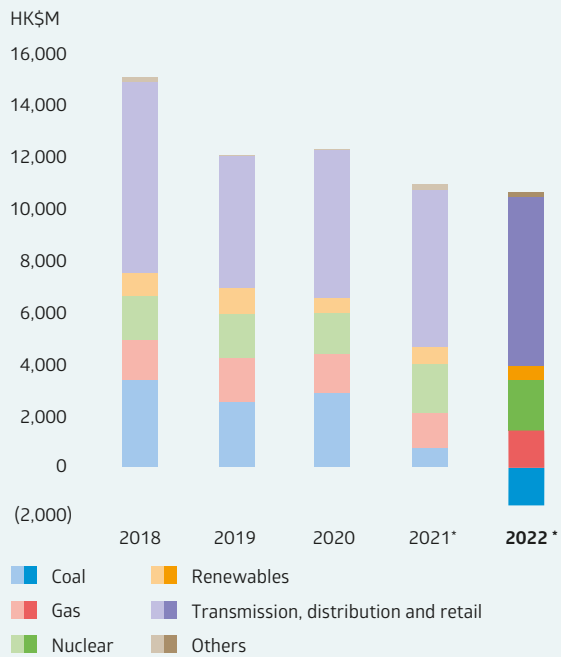
Notes:

- EBITDAF = Earnings before interest, taxes, depreciation and amortisation, and fair value adjustments. For this purpose, fair value adjustments include fair value gains or losses on non-debt related derivative financial instruments relating to transactions not qualifying as hedges, ineffectiveness and de-designation of cash flow hedges
- ACOI (Adjusted Current Operating Income) representing operating earnings before net finance costs, income tax, other non-controlling interests, distribution to perpetual capital securities holders and fair value adjustments
- Operating return on equity = Operating earnings / Average shareholders' funds
- FFO to debt = FFO / Average debt; debt = bank loans and other borrowings
- Capitalisation = Closing share price on the last trading day of the year x number of issued shares at the end of the year
- Dividend payout = Dividend per share / Operating earnings per share
- Total return to shareholders representing the 10-year annualised rate of return from the combination of share price appreciation and dividend payments
- Price / Operating earnings = Closing share price on the last trading day of the year / Operating earnings per share
- Free cash flow = FFO – income tax paid + interest received – interest and other finance costs paid – maintenance capital expenditure paid + dividends received from joint ventures and associates

Operating Earnings and Dividend per Share

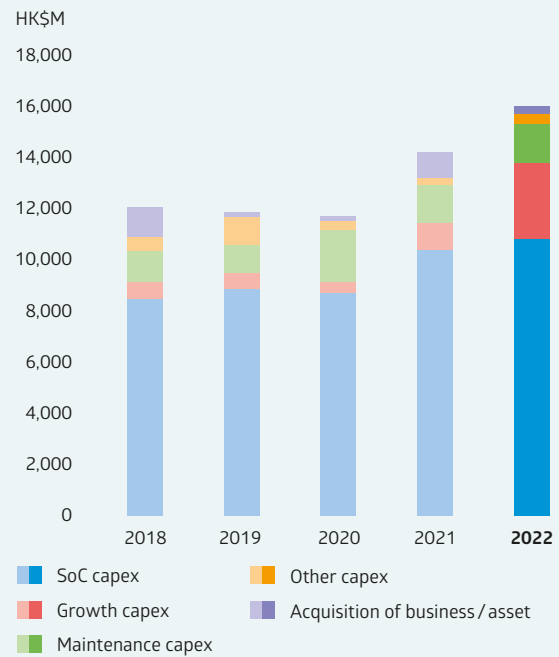


Operating Earnings (Before Unallocated Expenses) by Asset Type



* Excluding EA's fair value movements

Capital Investments



› Business Performance and Outlook

Hong Kong	40
Mainland China	47
Australia	53
India	59
Southeast Asia and Taiwan	64

We are focused on our goal to provide sustainable energy solutions for markets in our diversified portfolio.

中電



Hong Kong

- + Decarbonising our energy supply and harnessing technology to empower customers for a digitally connected and net-zero carbon future.



+ Black Point Power Station

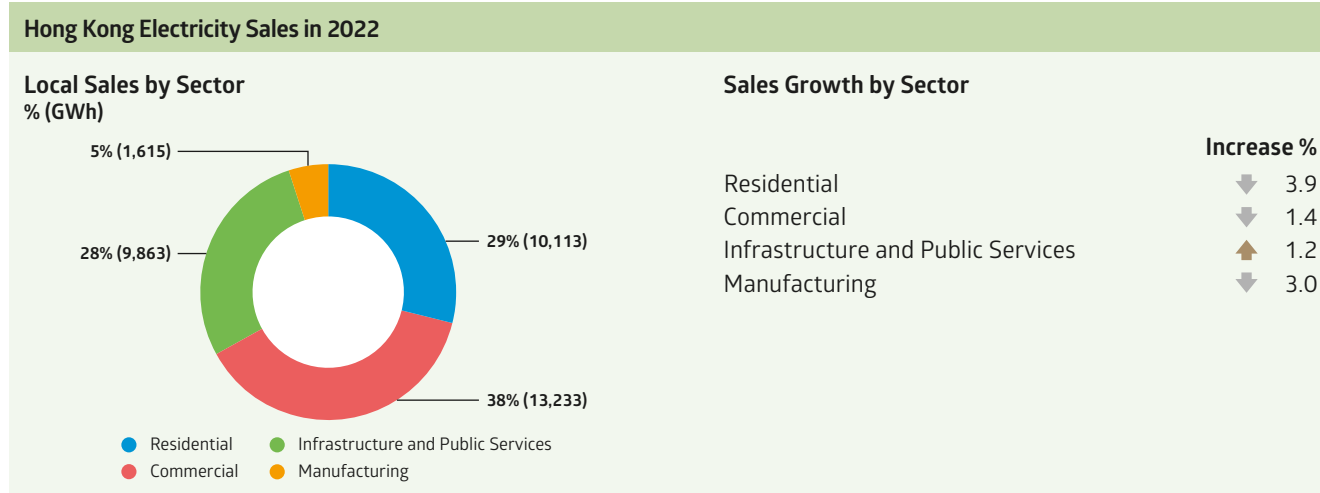
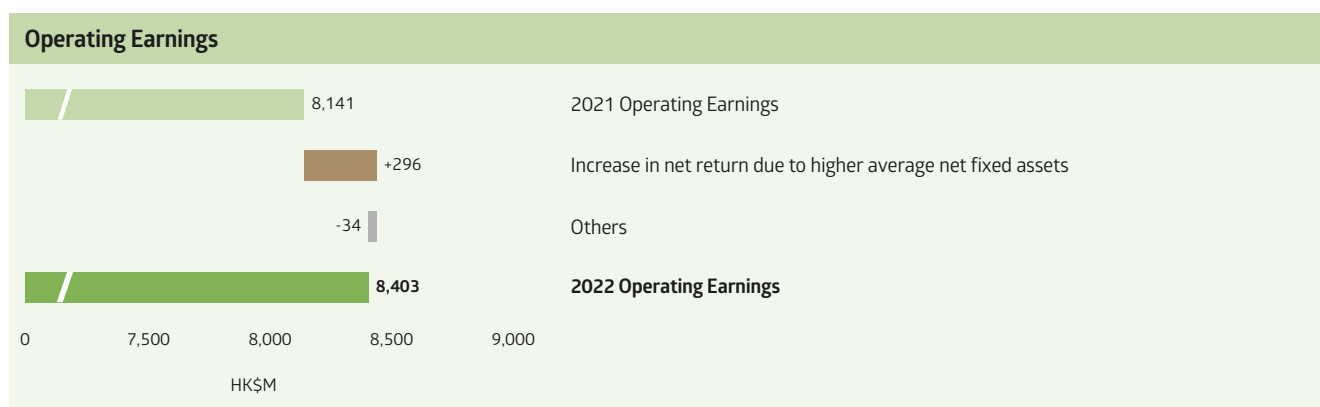
Hong Kong

Overview

The Hong Kong economy came under sustained pressure from extended COVID-19-related restrictions, surging global interest rates and a challenging macroeconomic environment in 2022. As a key utility provider, CLP Power Hong Kong Limited (CLP Power) stepped up to its responsibilities and introduced measures to ease the financial pressure on customers and the Hong Kong community while continuing to offer a safe and reliable electricity supply.

Demand for electricity was marginally lower, dipping 1.5% to 34,824 gigawatt hours (GWh), partially because of the much cooler weather in May which reduced consumption by residential customers. The economic slowdown also led to a fall in electricity demand from the commercial and manufacturing sector, particularly among restaurants, property management companies and retail outlets. This decrease was partly offset by the continuing growth in sales to data centres. An increase in the number of residential accounts saw the customer account total rise to 2.75 million from 2.71 million in 2021.

Operating earnings from the Hong Kong energy business rose to HK\$8,403 million, up 3.2% from HK\$8,141 million a year ago, because of higher invested capital. The performance of the business is summarised below:

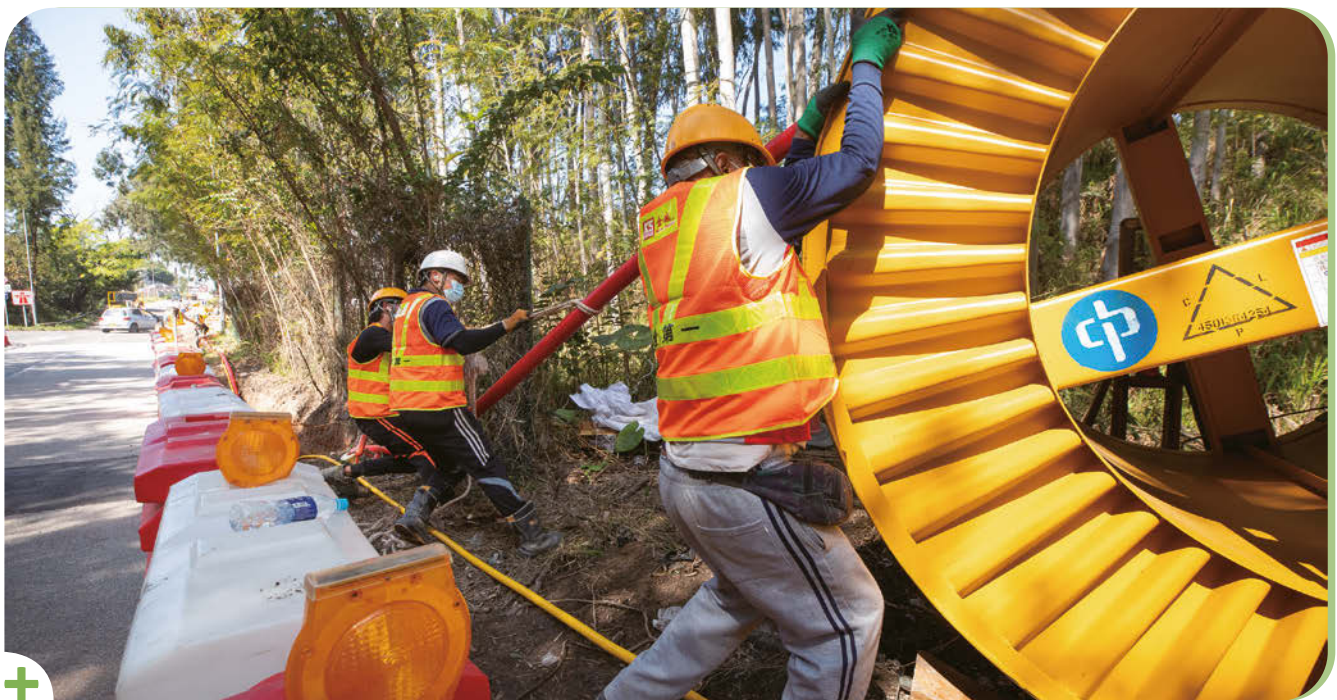


Helping Customers through Challenging Times

Electricity tariffs rocketed worldwide because of surging global fuel prices and a global energy crisis triggered by the war in Ukraine. Residential tariffs in Singapore, Tokyo and London, for instance, increased by between 43% and 102% from the start of 2021 to the end of 2022. In Hong Kong, CLP Power kept its Basic Tariff for 2023 unchanged for the third consecutive year by adopting a host of cost-cutting measures and drawing on its Tariff Stabilisation Fund. Higher fuel costs nevertheless pushed up the Average Net Tariff to 154.4 cents per unit of electricity in January 2023, 19.8% higher than 12 months earlier.

To reduce some of the financial impact on customers and to encourage greater energy efficiency, CLP Power drew down the balance of its Tariff Stabilisation Fund to establish a new Special Energy Saving Rebate in 2023 for residential and some business customers. It also allocated HK\$200 million from the CLP Community Energy Saving Fund to offer a range of community support programmes for underprivileged households, including the CLP Fuel Cost Subsidy Programme which will support 150,000 families in need and people living in subdivided units.

As the city's largest power supplier, CLP Power has a responsibility to support customers and the broader community through challenging times. When a fifth wave of the pandemic swept the city in early 2022, CLP Power engineers worked around the clock to arrange electricity supply to anti-pandemic centres and facilities in record time. Employees utilised innovation and digital technology to help develop a digital solutions management system for a relief organisation to handle its service requests and volunteer database, while CLP volunteers distributed daily necessities and anti-virus supplies to low-income families, elderly people and other underprivileged customers. The company meanwhile rolled out a range of support measures, including electricity bill deferments for small and medium enterprises (SMEs) in the catering and retail sectors, which were particularly hard hit by the outbreak. The CLP Retail and Catering Coupons Programme was revived to promote consumer spending and ease the burden on underprivileged households, such as elderly people and tenants of subdivided units.



CLP Power engineers and contractor workers work around the clock to provide new power supplies in record-breaking time for the new community isolation and treatment facilities during the fifth wave of the pandemic in early 2022.

CLP Power places top priority on maintaining its exemplary levels of safety and reliability. In June, however, a rare outage took place when a cable bridge in Yuen Long caught fire, affecting the power supply to around 175,000 customers in the northwest New Territories area. An expert panel set up by CLP Power carried out a comprehensive investigation into the incident and concluded it was highly likely that a fluorescent light in the cable bridge caught fire and ignited the nearest pilot cable below, with the fire then spreading to the adjacent pilot and power cables. CLP Power has since conducted a detailed fire risk assessment of all its facilities and identified follow-up steps to safeguard against any repeat of the unfortunate incident. Most steps have already been carried out while the remainder will be completed in the coming months.

CLP Power extended its sincere apologies to those affected and thanked government departments and community leaders for their assistance and invaluable advice. As a gesture of gratitude for their understanding, CLP Power distributed appreciation vouchers worth HK\$20 million to residential customers affected by the incident to spend in the affected districts.

As technology continues to transform the way we live and work, CLP Power is digitalising its products and services to further improve support for customers. In 2022, more than 60% of its most common service requests from customers were received and dealt with electronically, compared with just 7% in 2018. CLP Power aims to increase that figure to more than 80% in the coming years as it invites customers onto an enhanced digital platform that offers a better user experience and interaction.

Shaping the Future with Crucial Infrastructure

Despite the logistical and supply chain challenges caused by the pandemic, CLP Power pressed ahead with a wide range of large infrastructure projects that support Hong Kong's transition towards the use of cleaner fuels, such as natural gas and renewable energy.

Construction of a second gas-fired generation unit with a combined-cycle gas turbine continued at Black Point Power Station with most engineering and procurement works now completed. The new unit, D2, is scheduled for full operation in 2024 and will play a key role in allowing older coal-fired generation units at Castle Peak A Power Station to be retired in the next few years.

Construction of a marine jetty and undersea gas pipelines for an offshore LNG terminal was completed and the terminal is due to go into service later in 2023, further improving Hong Kong's long-term natural gas supply stability and allowing for natural gas to be bought from the international market at competitive prices.

Natural gas is a transition fuel that will help Hong Kong achieve its climate targets. However, more renewable energy is needed if Hong Kong is to reach a net-zero carbon future, and CLP Power promotes the development of renewable energy to customers through two key initiatives.

The Renewable Energy Feed-in Tariff scheme, launched in 2018, continued to receive strong interest from customers. Around 93% of total applications have been approved, representing some 336MW of capacity approved or connected to the grid by the end of 2022, up from 309MW six months earlier.

The second initiative is the development of utility-scale renewable energy projects. Because of Hong Kong's limited available land, offshore wind is likely to be the biggest contributor to the Government's target of increasing renewable energy generation to between 7.5% and 10% of Hong Kong's total electricity supply by 2035 and later to 15%. CLP Power is putting forward a proposal for Hong Kong to construct its own offshore wind farm in its south-eastern waters. It also continued to explore the possibility for greater cooperation within the Greater Bay Area (GBA) particularly with investment in the development of offshore wind projects in Mainland China waters close to Hong Kong to supply renewable energy to the city. Work to enhance the Clean Energy Transmission System to allow for the import of more zero-carbon energy from Mainland China to Hong Kong moved forward and is expected to be completed by 2025.

Treading More Lightly on Our Planet

Decarbonisation is a journey everyone must make together. While CLP Power works to decarbonise electricity generation, it also encourages and helps customers who want to reduce their carbon footprint.

The CLP Renewable Energy Certificates (RECs) programme gives customers the opportunity to support local renewable energy projects. In October, HSBC committed to buy 300GWh of RECs between 2022 and 2027, equivalent to a reduction of over 117,000 tonnes in carbon emissions over the six-year period. This is the biggest purchase of CLP RECs to date.

CLP Power also made considerable progress in its plan to replace traditional meters with smart meters for all residential and SME customers by 2025. More than 1.78 million smart meters were connected by the end of 2022, accounting for 63% of eligible homes and businesses. Smart meters give customers greater control over their electricity use by providing them with timely, detailed consumption data. On 12 and 25 of July during Hong Kong's hottest month on record, around 600,000 households with smart meters took part in the Summer Saver Rebates programme and lowered their energy use during peak demand periods. A total of 300,000kWh of electricity was saved in the two events that lasted for a total of four hours. Industrial and commercial customers also contributed to the reduction in demand by participating in other demand response programmes. The combined programmes significantly reduced demand on the evening of 25 July, when electricity demand hit a new high of 7,720MW. Demand would have been more than 130MW higher without the initiatives, hence saving additional investment in the longer term while supply reliability is maintained.

Commercial customers are increasingly focused on sustainable development and Environmental, Social and Governance (ESG) issues, and CLP Power has launched a variety of programmes to help them achieve their ESG goals. One of these initiatives involves working in partnership with banks to provide energy management expertise and solutions to commercial customers, allowing them to gain access to banks' sustainability-linked loans and financing.

In November, DBS Bank (Hong Kong) Limited (DBS Hong Kong) and CLP Power announced a joint initiative to help companies of all sizes transition to more sustainable business models. Both DBS Hong Kong and CLP Power recognise the need to make sustainable financing solutions more accessible to SMEs constrained by the lack of resources, time, expertise and funds. The initiative also applies to energy audits, which often require expertise and additional funding. Under the initiative, DBS Hong Kong and CLP Power offer flexible and innovative financing loan solutions to businesses based on energy-saving services, which include sustainability performance targets measured with reference to CLP Power's existing energy-saving funding schemes. By combining CLP Power's comprehensive energy expertise with DBS Hong Kong's extensive experience in strategic green advisory and financing, the two companies can offer comprehensive support and capital for businesses, allowing them to invest in energy efficiency and expand sustainably.

Transport currently accounts for around 20% of Hong Kong's greenhouse gas emissions, and CLP Power is committed to promoting the use of electric vehicles (EVs) as part of the city's low-carbon transformation. CLP Power will continue to provide free EV charging facilities until the end of 2023 and support the installation of new EV charging infrastructure for customers in partnership with the Government through CLP's Eco Charge 2.0 programme launched more than two years ago. By the end of 2022, CLP Power has completed preliminary assessments for around 96% of 500-plus applications for government funding, which cover around 126,000 EV-enabled bays in the car parks of private residential blocks. The Regalia housing estate in Kowloon is the first CLP Power's customer to have completed the installation of EV charging-enabling infrastructure under the scheme and the largest project of its kind across Hong Kong. The project, completed in January 2023, converted more than 300 existing parking spaces into EV charging-enabled bays.

CLP Power also helped Kowloon Motor Bus Co. (1933) Ltd. electrify its fleet by providing technical support and guidance for the setting up of quick chargers at its depots using their existing power capacity, making the project more cost and time effective.

Engaging Customers with Energy as a Service

CLPe, a wholly owned subsidiary of CLP Holdings providing integrated energy and infrastructure solutions, expanded offerings in Hong Kong under the Energy-as-a-Service (EaaS) model. In its first infrastructure-scale centralised cooling project, CLPe is helping the Chinachem Group replace the chiller plants at Nina Tower, a multipurpose complex and one of Hong Kong's tallest buildings. Under a Build-Own-Operate-Transfer (BOOT) agreement, CLPe will be responsible for the re-engineering works of the chiller system, including introducing an artificial intelligence (AI) optimisation control system and taking charge of operation and maintenance works for 20 years. As well as increasing energy efficiency at the landmark building, the electricity consumption of the chiller plants will be matched by Green Electricity Certificates linked to a renewable energy project of CLP Holdings, making it Hong Kong's first zero-carbon chiller system.

CLPe is also working with SOCAM Development Limited, a listed subsidiary of Shui On Group, to install a new cooling system at the Shui On Centre, a 35-storey Grade A office building in Hong Kong. CLPe will fund, design, construct, operate and maintain the freshwater-cooled chiller plant equipped with an AI management system.

In another green energy project, CLP Power and CLPe have signed a memorandum of understanding (MoU) with ESR HK Limited (ESR) to develop sustainable data centres and logistics centres in Hong Kong and the GBA. Under the MoU, CLP Power and CLPe will use their energy and infrastructure solutions expertise to help ESR design, construct and operate sustainable data and logistics centres. The collaboration will set metrics that can potentially be used for green financing, such as sustainability-linked loans.

Outlook

Electricity is a capital-intensive industry that requires long-term planning. CLP Power is working closely with the Government on its next five-year Development Plan covering the period of 2024 to 2028 to support Hong Kong's future growth and roadmap to carbon neutrality by 2050.

The policy address from the new administration in 2022 made it clear that creating a strong impetus for economic growth is a high priority for Hong Kong. CLP Power will continue to ensure the timely delivery of reliable and cost-effective power sources for a faster pace of development in

homes and businesses, infrastructure and public facilities, as well as providing an electricity supply to the new Northern Metropolis and the Kau Yi Chau Artificial Islands Development.

As well as working tirelessly to create the infrastructure for the wider use of clean energy, CLP Power is constantly exploring new ways to support the energy transition. To ensure Hong Kong's ports remain competitive and meet the rising expectations of the maritime sector, for instance, CLP Power is working with the Government and other partners to make LNG available as a fuel for ocean-going vessels docking in Hong Kong, bringing further air quality and environmental benefits to the wider community.

CLP Power is also exploring the use of battery energy storage systems to support the integration of increasing levels of non-fossil fuel generation as technology in the energy storage field advances. It is also monitoring the development of hydrogen, which has a potential key role to play in future zero-carbon electricity generation, and is exploring a pilot project of using hydrogen in combination with natural gas at Black Point Power Station within the next five years.

Nuclear power is a clean energy source and has been indispensable in Hong Kong's fuel mix for decades given its reliable supply and relatively stable and competitive price. As an investor and importer of nuclear energy for almost 30 years, CLP Power believes nuclear energy is well placed to become one of the major low-carbon energy sources for Hong Kong and the world for years to come. CLP Power is dedicated to working closely with the Government and the community to support the city on its long-term decarbonisation, including importing more zero-carbon energy, such as nuclear and renewable energy, from Mainland China if and when required.

As the city's largest electricity supplier, CLP Power has a vital role to play in helping move Hong Kong towards a net-zero carbon future. In the short to medium term, an increased use of natural gas and the phasing out of coal will have a noticeable impact on CLP Power's greenhouse gas emissions. In the long term, zero-carbon electricity generation from offshore wind farms and nuclear plants combined with the exciting potential of hydrogen will steer Hong Kong towards a future of sustainable growth, clearer skies and brighter tomorrows.



Mr Wallace Lam
Managing Director and
Head of Institutional Banking Group,
DBS Bank (Hong Kong) Limited



T.K. Chiang
Managing Director,
CLP Power

ESG issues are a growing concern for businesses. Does CLP help address them – particularly smaller firms with limited resources?

CLP Power has launched a range of programmes to help commercial and industrial customers focused on sustainable development and ESG issues to achieve their goals. Our collaboration with your bank to provide sustainability-linked bank loans to businesses is an

excellent example. We understand there is a growing interest among financial institutions to consider energy efficiency as one of the criteria when providing sustainability-linked financing. We also recognise the need to make sustainable financing solutions more accessible to SMEs, which are often constrained by the lack of resources, time, expertise and funds. This also applies to energy audits, which usually require expertise and additional funding.

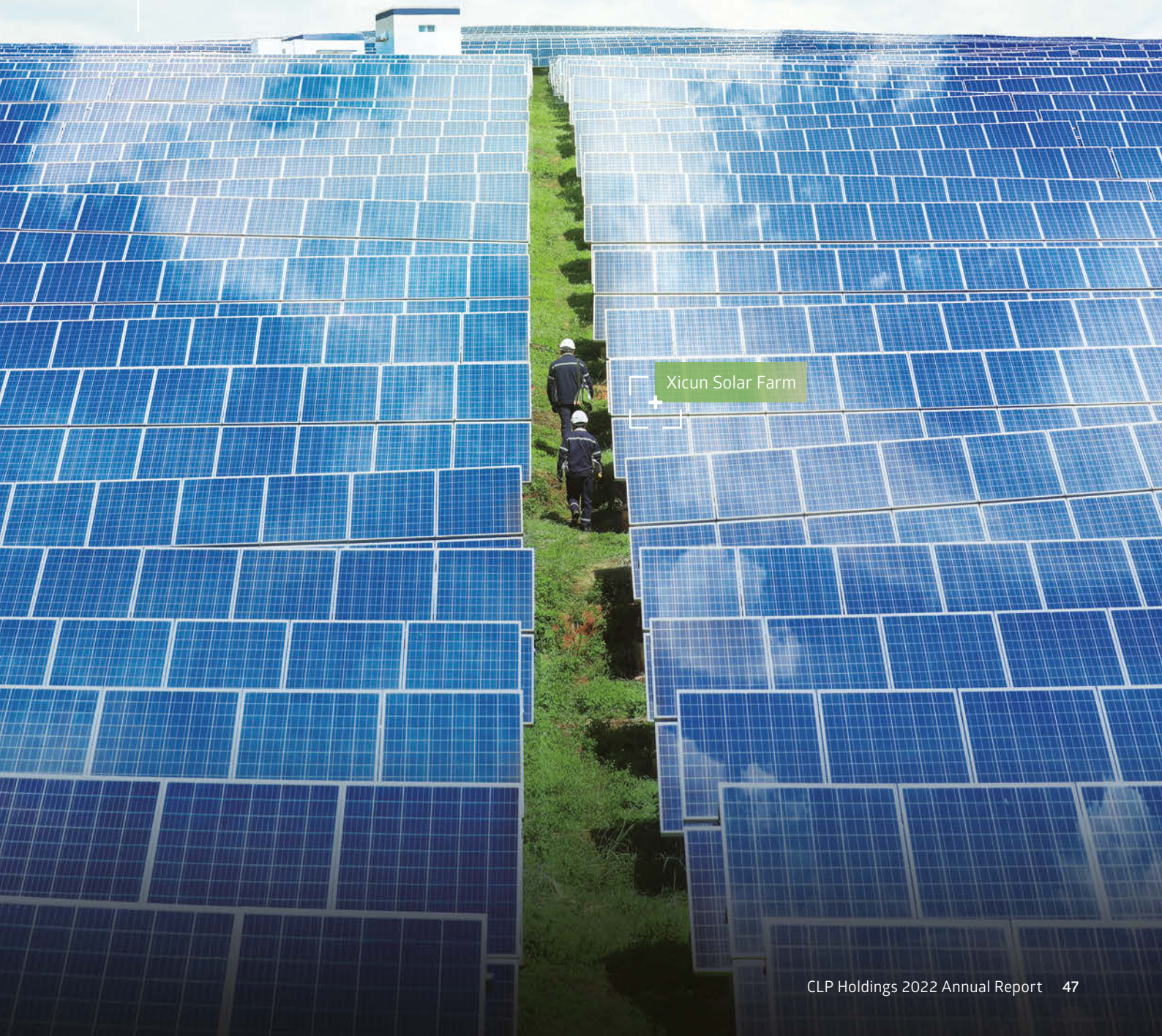
With DBS Hong Kong's extensive experience in strategic green advisory and financing and CLP Power's long history of being a steadfast energy partner to customers, it is pleasing to see that our two companies have developed this innovative initiative whereby DBS Hong Kong offers banking support to customers with preferential pricing upon the completion of an energy audit by CLP Power. With this new initiative, flexible and innovative financing solutions are now available to help businesses tackle their challenges.

On top of this, CLP Power is launching a host of initiatives from the CLP Community Energy Saving Fund this year for businesses to improve their energy efficiency, save operating costs and lower carbon emissions. Our Electrical Equipment Upgrade Scheme provides subsidies to companies, particularly SMEs, to install or upgrade more energy-efficient lighting and air conditioning equipment. For organisations with high levels of energy consumption, we work with universities, research institutions and other professional organisations to conduct in-depth energy analysis and offer energy-saving advice. We also have the CLP Eco Building Fund which subsidises commercial, industrial and residential buildings to carry out energy efficiency improvement works in their communal areas.

As a trusted energy partner for business customers, CLP Power is excited to be part of their sustainability journeys. We believe these initiatives are stepping stones on the way to sustainability, and we are glad to have DBS Hong Kong as a partner.

Mainland China

- + Growing a diversified portfolio of non-carbon generation assets and developing Energy-as-a-Service business model to support the Mainland's decarbonisation.



Xicun Solar Farm

Mainland China

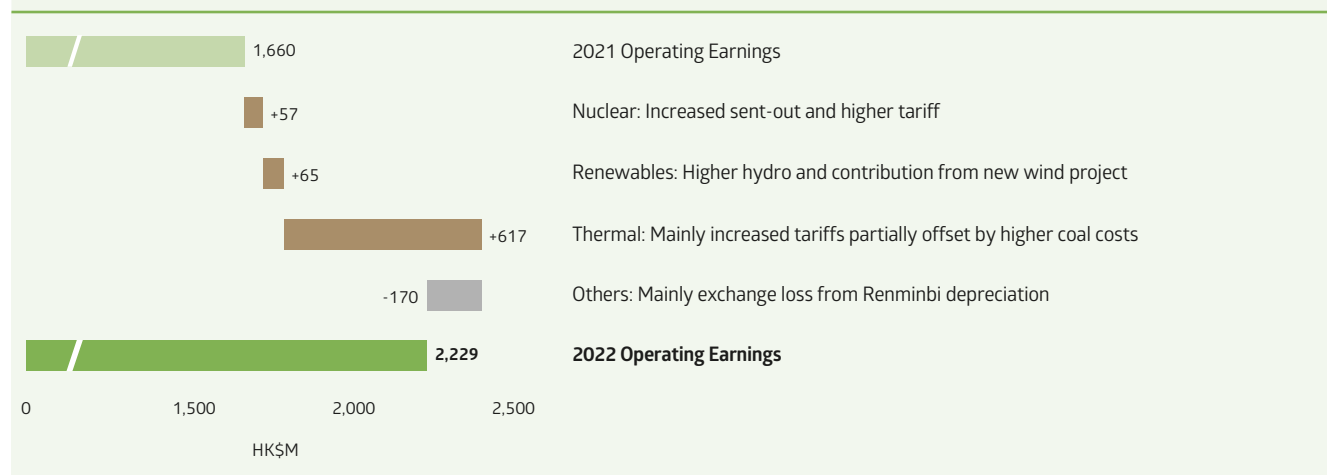
Overview

The Chinese economy faced a combination of domestic and external challenges throughout 2022. A flare-up in COVID-19 cases led to lockdowns in major cities, slowing retail consumption and cooling the property sector. Softening global demand meanwhile hampered exports.

However, the Central Government's relaxation of pandemic restrictions in the closing weeks of the year ushered in a wave of new growth momentum going into 2023. Gross domestic product increased 3% year-on-year, while electricity consumption – a key barometer of economic activity – maintained a stable growth rate of 3.6%.

CLP China continued to operate its assets reliably to meet the country's power needs, with operating earnings increasing 34.3% to HK\$2,229 million. The performance of the business is summarised below:

Operating Earnings	2022 HK\$M	2021 HK\$M	Change %
Nuclear Energy	1,965	1,908	3.0
Renewable Energy	610	545	11.9
Thermal Energy	45	(572)	N/A
Operating and Development Expenditure	(391)	(221)	(76.9)
Total	2,229	1,660	34.3



Nuclear Plants Drive Growth

CLP China's two nuclear energy projects in Guangdong province continued to perform strongly. Yangjiang Nuclear Power Station achieved record electricity generation, increasing output in response to unmet demand after high fuel costs deterred some coal-fired assets from generating, and output from hydro plants declined. The plant optimised refuelling outages to avoid supply disruption, and benefitted from higher electricity tariffs. Output from Daya Bay Nuclear Power Station was slightly lower because of planned refuelling outages for both units in 2022, compared to one unit in 2021.

Renewable Projects See Rising Output

Output from CLP China's renewable energy portfolio rose, largely because of the early commercial operation of Qian'an III Wind Farm and an improved performance in the hydro segment as a result of higher water availability which offset a decline in wind resources.

Qian'an III Wind Farm is CLP China's first grid-parity renewable energy project in Mainland China. It operates without government subsidies and is the first CLP China project equipped with a battery energy storage system. The success of Qian'an III has inspired CLP China to develop other grid-parity projects, including Xundian II Wind Farm in Yunnan province and Bobai Wind Farm in Guangxi Zhuang Autonomous Region.

Despite disruption from strong winds and heavy rain, four of eight wind turbines at Xundian II were installed and the farm is expected to be in service by the end of the first quarter of 2023. Meanwhile, preparations for the construction of Bobai began in the second half of the year and the plant is expected to go into operation in 2024.

Concerted efforts have been made to expand business and build new power plants across Mainland China. CLP China reached an agreement to acquire greenfield solar projects in Jiangsu province. Construction of the first – an 80MW solar project – began in the fourth quarter, and CLP China also signed a build and transfer agreement for a 100MW solar project in Guangdong province. Both projects are expected to go into operation in 2023.

With the support of the Central Government on the collection of delayed national subsidy payments owed to CLP China's renewable projects during the year, the receivables position has improved.

Thermal Projects Register Higher Contribution

The contribution of coal projects to CLP China in 2022 was higher year-on-year because of increased tariffs, despite the impact of high fuel costs on generation.

In line with the Group's commitment to phase out coal-based assets before 2040, CLP China sold its 70% stake in Fangchenggang Power Station in Guangxi for HK\$1,648 million, incurring a loss of HK\$185 million. Fangchenggang is one of the country's most efficient coal-fired projects and will continue to produce electricity to meet the rising demand in the region.



CLPe has agreed to fund, design and construct a distributed solar project at the headquarters building of MTR Shenzhen, with the first phase already commissioned in September.

The table below shows the performance of CLP China's renewable energy and thermal energy projects in Mainland China:

	Installed Capacity Equity MW	Electricity Sent Out Equity GWh		Availability %		Utilisation %	
		2022	2021	2022	2021	2022	2021
Renewable Energy Projects							
Wind	1,010.3	2,146	1,893	99.2	99.3	25.0	24.3
Wholly owned	643.5	1,485	1,184	99.1	99.3	27.6	25.7
Qian'an I & II & III ¹	199	565	214	99.2	99.3	35.2	26.0
Penglai I	48	96	99	99.4	99.5	23.3	24.1
Laiwu I, II & III	149	262	270	99.4	99.7	20.6	21.3
Xundian I	49.5	126	129	99.3	99.5	29.8	30.5
Sandu	99	197	217	98.2	98.4	23.2	25.6
CLP Laizhou I & II	99	239	255	99.0	99.2	28.3	30.1
Minority-owned ²	366.8	661	709	99.3	99.4	20.4	21.8
Solar ³	328.3	593	603	99.8	99.9	20.9	21.2
Jinchang	85	187	181	99.1	99.9	25.3	24.5
Sihong	93.4	147	147	100	100	18.2	18.2
Xicun	84	155	168	100	100	21.2	22.9
Huai'an	12.8	21	20	100	99.9	18.5	18.1
Lingyuan	17	33	31	100	100	23.1	22.0
Meizhou	36.1	50	56	100	99.8	17.0	17.7
Hydro	489.3	1,835	1,668	88.3	93.2	43.2	40.4
Dali Yang_er	49.8	151	145	95.2	90.8	34.9	45.3
Huaiji	109.5	323	237	94.9	94.0	34.6	25.5
Jiangbian	330	1,361	1,285	85.1	93.3	47.3	44.6
Thermal Projects							
Majority-owned							
Fangchenggang I & II ⁴	1,806	5,321	7,085	85.3	85.3	38.7	47.1
Minority-owned	1,777	7,676	9,468 ⁵	93.4	91.8 ⁵	53.2	54.2 ⁵
Heze II	176.4	669	865	91.4	91.4	47.0	60.4
Liaocheng I	352.8	1,309	1,445	87.3	87.5	46.0	50.6
Panshan	206.7	950	997	92.5	93.5	56.1	58.7
Sanhe I & II	219.5	967	993	94.0	89.6	53.9	55.2
Suizhong I & II	564	2,386	2,379	97.0	94.8	51.4	51.3
Zhungeer II & III	257.4	1,396	1,443	95.4	94.7	68.0	70.4

Any minor discrepancies in totals are due to rounding of figures.

Notes:

- 1 Qian'an III (100MW) achieved commercial operation in March 2022.
- 2 CLP divested its 24.5% stakes in the Mazongshan and Qujiagou wind farms in Liaoning province in March 2021.
- 3 Alternate Current (AC) capacity is used to align with the calculation method for other power plants in the CLP portfolio.
- 4 CLP divested its 70% stake in Fangchenggang I & II on 30 November 2022. The data for 2022 shown on the table is recorded up to that day.
- 5 Data includes contribution from Shiheng I & II which ceased to be owned by CLP from 1 January 2022.

Making Connections in the Greater Bay Area

CLP continued to expand its service offerings in 2022 in response to growing demand for sustainable and integrated energy solutions in the GBA and beyond. CLPe, a wholly-owned subsidiary of CLP Holdings, launched initiatives to help customers embrace low-carbon business models and lifestyles as part of its mission to be a trusted partner for energy and infrastructure solutions to customers across the GBA.

CLPe signed a MoU with the Longhua District People's Government of Shenzhen Municipality in August to develop digitalised energy projects in the southern Chinese city. The company will implement one-stop smart energy projects and solutions for buildings and parks to support Longhua's transformation into a national pilot area for energy digitalisation, including renewable energy solutions, EV charging solutions and cooling systems. CLPe will also establish its GBA head office in Longhua.

The first project in the district is a collaboration on a distributed solar project with MTR Corporation (Shenzhen) Limited (MTR Shenzhen). CLPe has agreed to fund, design and construct the system, which is an Energy-as-a-Service (EaaS) model involving the installation of more than 2,000 solar panels at the headquarters building of MTR Shenzhen. CLPe will be responsible for the operation and maintenance of the system while MTR Shenzhen will benefit from the zero-carbon electricity generated by the system at a favourable price. The first phase of the project was commissioned in September. CLPe and MTR Shenzhen are exploring the possibility of installing more distributed solar systems on the premises of MTR Shenzhen.

CLP Group has also formed a strategic partnership to develop smart energy technology businesses in the GBA with Venturous Group, a company specialising in smart city technologies in which CLP has a 5% stake.

To accelerate the growth of green transport in Mainland China, CLP Holdings and smart charging network operator Qingdao TGOOD Electric Company Limited have formed a joint venture to invest in charging infrastructure networks for EVs in the GBA. The project's initial focus areas include Shenzhen, Dongguan and Zhuhai.

In another venture, CLPe signed a 15-year build-operate-transfer agreement with Guangdong Weixin Biological Technology Limited in October for an integrated energy station that will provide chilled water, steam and compressed air to the food and nutritional supplement manufacturer's industrial park in Guangdong province. It is CLP's first integrated EaaS project in the GBA and construction is expected to begin in the first quarter of 2023.

In April, CLPe's EaaS project to help modernise the centralised cooling system at Po Park Shopping Plaza in central Guangzhou began commercial operation after retrofitting works were completed. A new fleet of chiller units has helped improve the efficiency of the cooling system by over 50%. The project will provide CLPe with a steady income stream for about 15 years.

Outlook

China has set targets of reaching peak carbon emissions by 2030 and achieving carbon neutrality by 2060, commitments that were reiterated by President Xi Jinping at the national party congress in October. The systemic transformation involved in meeting those targets presents significant investment opportunities for the development of non-carbon energy generation and storage infrastructure.

CLP China will continue to strengthen its non-carbon pipeline in support of the decarbonisation strategy, predominately by adding more grid-parity renewable energy projects. It will also explore the development of battery energy storage systems to support its new renewable projects with storage capacity. In terms of geographical focus, CLP China will consider appropriate opportunities presented by national policies in the new development areas designated by the Central Government, in addition to the coastal provinces where it already has operations.

CLP China is well-positioned to support Mainland China on its decarbonisation journey with its extensive portfolio of wind and solar project. As an increasing number of companies, particularly multinational corporations, make net-zero carbon commitments, CLP China will support them by providing and sourcing clean energy for them, whether through direct and exclusive arrangements or through corporate renewable procurement.

Looking ahead, CLP China will continue to expand its renewable energy portfolio through either greenfield or acquisition opportunities that contribute to profitability. It will also maintain its current projects steadily and reliably. Nuclear projects are expected to remain the main earnings driver for the time being, although a couple of long outages planned for 2023 and 2024 at Daya Bay could affect their output.

Demand for smart energy solutions will continue to bring exciting opportunities for CLPe to expand in the GBA and other parts of the country. CLPe stands ready to draw on its expertise to invest in and implement more EaaS projects and to help shape Mainland China's new energy future.

Mr Huang Zhiqiu

Chairman,
Guangdong Electric
Power Design Institute,
China Energy Engineering Group



Joseph Law

Managing Director – China



In 2020, China put forward its “3060” goals to peak carbon emissions by 2030 and achieve carbon neutrality by 2060. The development of green and low-carbon energy is the key to achieving carbon peaking in the crucial period of the national 14th Five-Year Plan. How does CLP plan for its business in Mainland China to help achieve these low-carbon goals?

CLP has been working proactively to reduce carbon emissions. As early as 2007, we announced our Climate Vision 2050 and became the first power company in Asia to take the initiative of setting low-carbon intensity targets. Over the years, we have regularly reviewed and updated those targets. Under our latest Climate Vision 2050, we aim to phase out all existing coal-fired assets before 2040. Moreover, we will cease investment in new coal-fired assets, as we seek to achieve net-zero greenhouse gas emissions across the entire value chain by 2050.

In Mainland China, CLP has a blueprint that is aligned with the national energy strategy and planning. We strive resolutely for the decarbonisation goals set out in Climate Vision 2050 and focus on new energy development. In 2022, Qian'an Wind Farm Phase III (100MW) in Jilin was put into commercial operation. In the same year, construction began on the 50MW Xundian Wind Farm Phase II in Yunnan and the 150MW Bobai Wind Farm in Guangxi. Agreements were also reached for more renewable energy projects in the Yangtze River Delta and the Pearl River Delta areas. By the end of 2022, CLP's net-zero power generation accounted for 68% of our total installed capacity in Mainland China.

CLP was a pioneer in the power industry when it entered the Mainland China market more than 40 years ago, and we have since become the largest external investor in the national energy sector. Looking ahead, we intend to expand our portfolio of investment in renewable energy and strategically develop nuclear energy as well as other zero-carbon technologies. While focusing on our own green transformation, we are committed to supporting people in all walks of life in achieving the common goals of energy saving and carbon reduction. By collaboratively establishing a sustainable development ecosystem made possible by innovation, we will endeavour to help the nation achieve its “3060” goals.

Australia

Supporting a reliable, affordable energy transition in Australia and accelerating the clean energy transformation for all.



Kidston pumped hydro energy storage project in Queensland



Australia

Overview

Australia's energy market was profoundly affected in 2022 by multiple supply shocks triggered by extreme weather events, generator reliability issues and the impact of the Ukraine conflict on coal and gas prices. These factors resulted in tighter supply and imbalances in demand, sharply pushing up prices of electricity and gas.

The extent of the volatility was highlighted when, in an unprecedented move, the Australian Energy Market Operator (AEMO) suspended spot trading in the National Electricity Market for more than a week in June following outages at major Australian coal-fired power stations and increased power demand caused by cold weather. EnergyAustralia offered all its available generation capacity to the AEMO during the market suspension.

Against this background, EnergyAustralia paid higher costs when settling sold forward contracts as less fuel supplied than contracted and unplanned outages led to shortfalls in production from its coal-fired generators. EnergyAustralia's earnings were negatively impacted as a result.

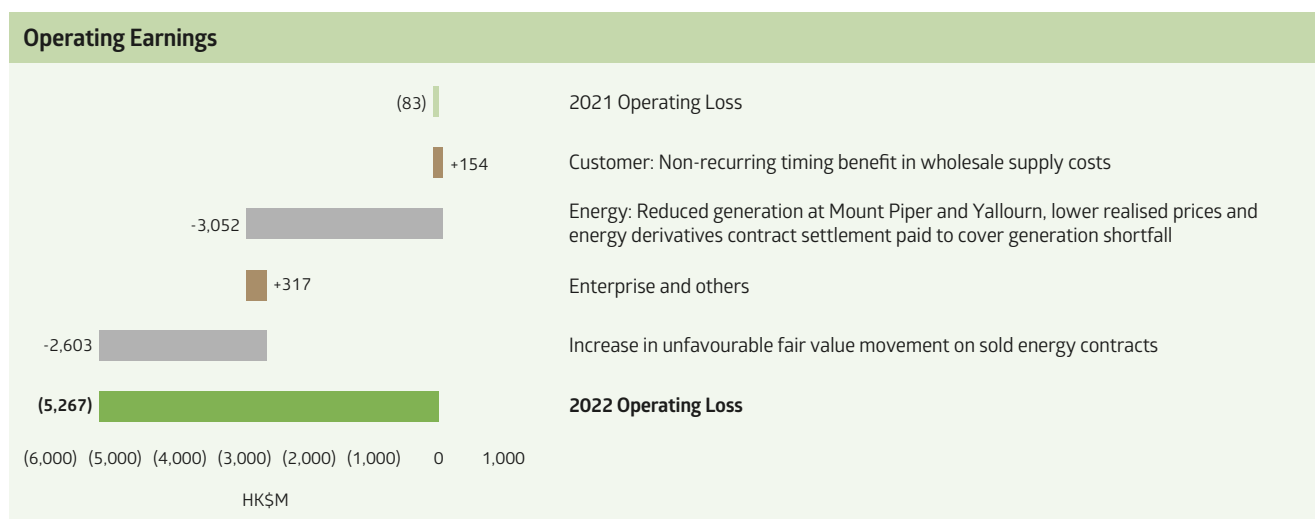
EnergyAustralia's retail business saw growth in both earnings and customer numbers. Forward purchasing of electricity

prior to the volatile pricing environment led to a one-off benefit in lower energy supply costs. The benefit, however, was more than offset by the impact of generation shortfalls and resulted in EnergyAustralia reporting an operating loss of HK\$5,267 million for 2022.

The requirement to mark-to-market forward contracts against higher prevailing market prices resulted in unfavourable fair value movements, which affected earnings. These fair value losses are characterised as unrealised accounting losses based on contract positions at a particular point in time. In an illustration of the volatile nature of these contracts, EnergyAustralia's post-tax fair value loss amounted to HK\$2,937 million for the full year of 2022, down from HK\$7,957 million reported in June largely because of a decrease in forward energy prices towards the end of the year. The sale price of the forward contract will be realised at contract expiry and matched against the generation hedged, provided EnergyAustralia's generating assets are available to meet the contracted supply.

With higher wholesale electricity prices in 2022, EnergyAustralia faced working capital pressures from the mark-to-market cash margin calls on its futures energy contracts that were out of the money. To service these requirements, EnergyAustralia arranged an additional syndicated debt facility.

EnergyAustralia's underlying operating performance in 2022 is summarised below:



Supporting Customers

EnergyAustralia announced increases in electricity and gas tariffs from 1 August 2022 for most residential and small business customers not on fixed-rate contracts, reflecting the rise in wholesale energy prices. The company remains committed to offering affordable energy services and value for customers in the face of rising power costs and growing cost of living pressures, and offered a range of measures to help customers struggling to pay their energy bills.

Several smaller energy retailers impacted by the market conditions in 2022 ceased operating, and some customers were transferred to EnergyAustralia under the Australian Energy Regulator's and the Essential Services Commission's Retailer of Last Resort mechanism which protects customers from failed retailers by passing them on to new providers. At the end of December, EnergyAustralia had 2.46 million retail customer accounts, a small year-on-year increase. Despite the market turbulence, the company also improved its customer churn performance.

Restoring Generation

Output at Yallourn Power Station in Victoria was reduced due to higher unplanned outages driven by latent and emerging age-related degradation including multiple tube leaks at its generation units. Mount Piper Power Station also saw lower output as a result of fuel conservation, with coal deliveries from its supplier below the contracted amount. While coal deliveries improved in the second half of the year, generation from Mount Piper was below 2021's levels as coal was conserved to build up the coal stock pile for higher demand periods.

EnergyAustralia's gas-fired power facilities in New South Wales, Victoria and South Australia increased generation with a high degree of reliability to offset the reduction in coal-fired generation, supporting the company's portfolio through a period of volatility and high prices. Operating costs rose substantially because of high gas prices resulting from the war in Ukraine. The company has dispatch rights to two grid-scale batteries which helped ensure stability in the National Electricity Market during spells of intense volatility.

The table below shows the performance of EnergyAustralia's generation assets:

	Installed Capacity Equity MW	Electricity Sent Out Equity GWh		Availability %		Utilisation %	
		2022	2021	2022	2021	2022	2021
Wind							
Cathedral Rocks	32	74	64.3	98.6	98.8	26.8	23.5
Gas	1,595	2,600	1,035	87.8	81.8	19.2	7.7
Newport	500	680	256	92.3	75.2	16.7	6.3
Jeeralang	440	111	99	76.6	89.7	2.9	2.6
Hallett	235	88	45	87.4	76.0	4.4	2.2
Tallawarra	420	1,721	636	94.3	84.8	47.6	17.7
Coal	2,910	13,388	14,705	74.5	80.7	57.2	62.6
Mount Piper	1,430	5,697	6,737	82.5	87.8	48.7	57.4
Yallourn	1,480	7,691	7,969	66.7	73.8	65.4	67.7

Any minor discrepancies in totals are due to rounding of figures

EnergyAustralia recorded six environmental licence breaches in 2022. Three of the breaches were related to marginal air emissions exceedances – one of which was related to particulate matter emissions at Mount Piper while the other two involved particulate matter and sulphur dioxide emissions at Yallourn. The fourth and fifth breaches occurred at Mount Piper during a 21-day emergency water discharge event. One of these involved exceedances of the daily limit of discharge volume, while the other involved missing of testing of oil and grease in the weekly water samples. In all five incidents, the local Environment Protection Authority (EPA) was notified, and corrective and preventive active actions have been taken to prevent recurrence. None resulted in any actions by the EPA.

The sixth breach was related to the failure of a unit transformer at Jeeralang Power Station, resulting in some transformer oil coming out of the plant even though some was contained onsite in an oil interceptor pit. Most of the oil water was cleaned up on the day of the incident. EnergyAustralia has notified the local EPA and is liaising over a case review.

Powering Australia's Energy Transition

EnergyAustralia is committed to developing flexible capacity to support the energy transition. Construction of the Tallawarra B plant in New South Wales began in the first quarter of 2022, creating Australia's first carbon offset hydrogen and gas-capable power plant. Notwithstanding the engineer contractor has changed ownership following its voluntary administration, the project remains on track to be completed by late 2023.

Work also continued at the Kidston pumped hydro energy storage project in Queensland, underpinned by EnergyAustralia through a long-term energy storage services agreement with developer Genex. The project will support 250MW of power generation over an eight-hour period and energisation is scheduled for late 2024.

EnergyAustralia entered into a long-term energy storage services agreement with Edify Energy in April to support two utility-scale batteries in New South Wales with a combined capacity of 90MW/180MWh. The batteries will go into service in the summer of 2023-24.

In Victoria, progress was made towards the development of a battery energy storage project in Wooreen with a capacity of up to 350MW and a duration of up to four hours. Final investment decision of the project is scheduled for the end of 2023.

EnergyAustralia is also investigating the development of two flexible capacity projects near Mount Piper, a pumped hydro energy storage project with a capacity of up to 335MW and a duration of up to eight hours at Lake Lyell, and a separate battery energy storage project with a capacity of up to 500MW and a duration of up to four hours.

Meanwhile, EnergyAustralia has in place power purchase agreements representing more than 870MW of large-scale wind and solar projects in the National Electricity Market. The performance of the renewable energy projects EnergyAustralia is involved with is set out in the table below:

	Offtake for EnergyAustralia MW	Electricity Sent Out ¹ GWh	
		2022	2021
Wind	584	1,563	1,651
Boco Rock	113	284	335
Bodangora	68	215	201
Gullen Range	165.5	468	480
Mortons Lane	19.5	59	62
Taralga	107	227	292
Waterloo	111	310	281 ²
Solar	294	571	602
Coleambally	105	209	218
Gannawarra	50	101	107
Manildra	46	43	69
Ross River	93	218	208

Notes:

- 1 Publicly available data from the Australian Energy Market Operator.
- 2 Reinstated to denote increase in offtake.

Making Homes and Businesses Smarter

Demand response provides incentives for customers to reduce electricity consumption from the grid during periods of high demand. Utilising demand response may enable customer to derive a revenue stream from actions such as operational curtailment, switching on underutilised generation assets or utilising battery storage.

At the end of 2022, more than 318,000 residential customers have enrolled in PowerResponse, EnergyAustralia's demand response programme which helps customers save on power bills while supporting the grid during periods of high demand. In addition, over 100 customers have installed batteries at their homes as part of EnergyAustralia's Virtual Power Plant programme. They are given credits on their bills for allowing the company to dispatch their rooftop solar energy when it is needed most by the grid.

The Solar Home Bundle programme for homes across New South Wales was extended in 2022 with more than 200 households signing up to the programme. Participating customers have integrated solar and battery systems installed with no upfront costs after committing to seven-year electricity contracts.

In addition, EnergyAustralia helps customers reduce their carbon footprint and energy bills through its solar and energy

efficiency arm, Echo Group, which installed about 6MW of renewable generation at Australian homes and businesses in 2022.

EnergyAustralia's Go Neutral programme remains one of the largest certified carbon offsetting schemes in the country. More than 81,000 residential and business customers joined the programme over the course of the year, bringing the total to 525,300.

EnergyAustralia also continued its clean energy partnership with the Melbourne Cricket Ground (MCG), providing all renewable electricity used by the stadium for the first half of 2022. MCG is the first major Australian stadium to run entirely on green power.

Addressing Safety Issues

EnergyAustralia pleaded guilty in December to three charges under the Victorian Occupational Health and Safety Act relating to the 2018 death of Graeme Edwards, an operator at Yallourn. EnergyAustralia again expressed its profound regret and remorse for the tragic and avoidable death of Mr Edwards and acknowledged the impact it has had on his family and his workmates. Sentencing took place in the County Court of Victoria in February 2023 and EnergyAustralia received an A\$1.5 million (HK\$7.9 million) penalty.



EnergyAustralia is developing the new Tallawarra B hybrid natural gas and hydrogen generator to ensure more renewable energy can enter Australia's electricity market reliably.

Outlook

An Energy Bill Relief Fund was jointly announced by Federal and State Governments in December to address rising concern over the impact of rapidly increasing electricity and gas prices. The plan includes price caps on wholesale gas and coal, and targeted support for retail and small business consumers.

Officials believe these measures will dampen predicted gas price increases and reduce the impact of anticipated electricity price hikes in 2023-24. EnergyAustralia is examining the impact of these government interventions on its business and will work with Governments to reduce the impact of the higher cost of coal and gas on customers.

Global energy prices look set to remain volatile in 2023 as Australia faces up to the immense and complex challenges of advancing a transition to net-zero at a time of considerable geopolitical unrest and market uncertainty.

Despite this, EnergyAustralia expects to see operational performance improve thanks to a number of measures.

First, renegotiation of the main coal supply contract for Mount Piper has introduced a second mine, Airly, to support Springvale, thereby partially reducing supply risk. Second, major outages for each of the four units at Yallourn will be accelerated for two units in 2023 and two units in 2024. This will provide the opportunity to address in a targeted way the main causes of forced outages in 2022.

EnergyAustralia has also lowered the target level of forward contracting for Yallourn, reducing the financial exposure from forced outages.

These actions will position the company to improve generation operational performance and thereby its contribution to CLP's financial performance, to support the transition to renewable energy and to provide an avenue to more affordable energy for customers.

Ms Duyen Nguyen-Meachem

Communications Advisor,
EnergyAustralia



Mark Collette

Managing Director,
EnergyAustralia



EnergyAustralia has a large portfolio of coal and gas energy assets. What role do these assets play in the clean energy transition?

EnergyAustralia's purpose is to lead and accelerate the clean energy transformation for all. We seek to keep the energy system reliable and affordable while investing in the flexible capacity to support the large volumes of renewables needed to replace coal. We have

begun to transform our generation portfolio. For example, at Tallawarra B in New South Wales, we are building Australia's first gas and hydrogen capable power plant, a plant which has carbon offsets in place for its operation. In Queensland, we are supporting the construction of a pumped hydro project at Kidston through an offtake agreement.

These projects are only the beginning. We are working on a plan for a grid-scale battery at Wooreen in the state of Victoria and we are examining a battery project and a pumped hydro project at Lake Lyell near Mount Piper Power Station in New South Wales. We are also helping our customers reduce their energy usage with innovative and affordable products and services that blend customer assets with the grid, such as Solar Home Bundle which provides solar energy and storage direct to homes.

While we expand our clean energy asset base, we are continuing to manage our coal-powered generation assets responsibly to ensure security and affordability in our energy supply. Yallourn Power Station will close at the end of June 2028 and Mount Piper Power Station will close by 2040 at the latest.

We are proud of the contribution our assets and our workforce have made to Australia's economic prosperity and local communities in Victoria and New South Wales. We are committed to well planned and executed closures for our people and communities as the services provided by coal are replaced through the clean energy transformation.

India

- + A deepening partnership between its shareholders provides Apraava Energy with a stronger platform to capture opportunities offered by India's decarbonisation.

Chandgarh Wind Farm



India

Overview

India's economy grew strongly in 2022 thanks to robust domestic demand and foreign investment, which strengthened the country's macroeconomic fundamentals and helped it rebound sharply as the impact of COVID-19 receded. Against this backdrop, Apraava Energy continued to sharpen its focus on developing and investing in clean energy and power transmission projects to support India's energy transition.

Earnings from Apraava Energy's transmission portfolio rose significantly thanks to a stable operational performance and the contribution of a new project. However, CLP's operating earnings in India fell by 12.7% to HK\$193 million because Apraava Energy's renewable and thermal energy businesses were affected by lower resources, one-off issues and reduced tariffs. The performance of CLP's business in India is summarised below:

Operating Earnings	2022 HK\$M	2021 HK\$M	Change %
Renewable Energy	158	186	(15.1)
Thermal Energy and Corporate	(3)	28	N/A
Transmission	38	7	442.9
Total	193	221	(12.7)



A Rewarding Partnership

CLP and its partner CDPQ deepened their relationship which began in 2018 as the Canada-based global investment group increased its strategic participation in Apraava Energy from 40% to 50%. The transaction, completed in December, reflects the strategic alignment and commitment shared by the partners and provides a stronger platform for Apraava Energy to capture opportunities offered by India's decarbonisation initiatives.

Renewable Energy Projects Disrupted

The performance of Apraava Energy's renewable energy portfolio was hampered by low resources for both wind and solar projects while individual projects were affected by one-off issues. Operations at Theni Wind Farm in Tamil Nadu state were partially interrupted after a wind turbine generator collapsed, while in Madhya Pradesh state operations at

Chandgarh Wind Farm were interrupted by contractual disputes. In Maharashtra state, the Gale and Tornado solar projects were disrupted by a land dispute between local farmers and the original developer of the plants. Interim resolutions to these disputes have allowed operations at these plants to resume.

Construction of Sidhpur Wind Farm in Gujarat state continued and the project is expected to be commissioned by June 2023.

Local distribution companies continued to make payments for renewable energy to Apraava Energy. A new scheme to ensure better payment discipline in the long term was introduced by the Ministry of Power in June and outstanding receivables decreased considerably to HK\$564 million by the end of December, compared with HK\$883 million a year earlier.

The table below shows the performance of CLP's renewable energy projects in India:

	Installed Capacity ¹ Equity MW	Electricity Sent Out Equity GWh		Availability %		Utilisation %	
		2022 ¹	2021	2022	2021	2022	2021
Wind	462.1	927	1,002	93.5	96.6	19.7	21.2
Andhra Lake	53.2	118	113	96.7	95.8	22.1	20.9
Bhakrani	51.2	90	97	97.0	96.3	16.9	18.2
Chandgarh	46.0	72	104	74.3	97.8	15.7	22.7
Harapanahalli	19.8	47	49	96.6	97.4	23.3	24.1
Jath	30.0	56	60	94.4	97.4	18.7	19.9
Khandke	25.2	53	54	96.4	96.3	20.3	20.7
Mahidad	25.2	53	55	97.6	97.3	20.8	21.2
Samana I	25.2	47	50	97.9	96.0	18.3	19.6
Samana II	25.2	52	55	97.8	96.2	20.2	21.5
Saundatti	36.0	69	70	98.0	98.3	18.7	18.8
Sipla	25.2	51	54	97.3	95.2	19.7	20.6
Tejuva	50.4	120	132	96.8	97.3	22.9	25.0
Theni I	24.8	52	59	85.7	95.2	20.7	23.1
Theni II	24.8	47	51	87.1	94.6	18.7	20.2
Solar ²	125	269	278	92.0	95.0	19.4	21.2
CREPL	15	30	31	99.7	99.7	19.2	19.3
DSPL	25	54	55	99.8	100	20.4	20.7
Gale	25	45	51	71.8	82.8	17.3	19.5
Tornado	10	18	20	72.2	82.4	17.7	19.5
Veltoor	50	121	122	99.8	99.8	20.3	23.2

Notes:

1 Adjusted to reflect the change in CLP's interest in Apraava Energy in December 2022.

2 Alternate Current (AC) capacity is used to align with the calculation method for other power plants in the CLP portfolio.

Expanding Business Boundaries

Apraava Energy entered the power transmission sector in 2019 by taking a 100% stake in Satpura Transco Private Ltd. (STPL), which owns an intrastate project in Madhya Pradesh state. In December 2021, Apraava Energy completed the acquisition of a 49% interest in Kohima Mariani Transmission Ltd. (KMTL), which owns an interstate transmission project in northeast India. Apraava Energy further increased its stake to 74% in February 2023 and is due to take up the balance of 26% by the end of 2025.

Both STPL and KMTL performed reliably in 2022 with close to 100% availability. The inclusion of the KMTL project in Apraava Energy's portfolio provided a strong boost to earnings in the segment.

To further diversify its business in non-carbon growth areas, Apraava Energy has emerged as the most competitive bidder in the contracts to provide advanced metering infrastructure services in Assam and Gujarat states. Formal contract signing is expected to take place soon.

Power Station Performs Strongly

Apraava Energy's only coal-fired project in India – Jhajjar Power Station in Haryana state – recorded a year of stable operation, boosted by rising demand for electricity. However, availability and utilisation were lower than in 2021 because of an increase in planned outages and coal shortages at the beginning of the year. Earnings from the plant also decreased because the level of capacity tariff it was entitled to receive under its long-term power purchase agreements fell by more than 20% from April onwards.

Jhajjar was nevertheless able to achieve its greatest level of efficiency in terms of heat rate since 2019 when its flue gas desulphurisation units went into continuous operation, thanks to well-timed maintenance works and improved operational practices. The plant also received national and international awards in recognition of its contribution to biodiversity, workplace wellness as well as safety and environmental performance.

However, there were eight short-term licence limit exceedances for sulphur dioxide at the plant. To control the emission, Jhajjar requested to reduce loading or shut down the units in all incidents but was required by authorities to keep them operational owing to high power demand in the state. All the exceedances were reported to the regulators which have not imposed penalties or taken any further action.

The table below shows the performance of Jhajjar:

	Installed Capacity ¹ Equity MW	Electricity Sent Out Equity GWh		Availability %		Utilisation %	
		2022 ¹	2021	2022	2021	2022	2021
Coal							
Jhajjar	660	4,360	4,419	83.2 ²	88.0 ²	67.5	68.2

Notes:

- 1 Adjusted to reflect the change in CLP's interest in Apraava Energy in December 2022.
- 2 Technical availability. Jhajjar's commercial availability was 81.9% in 2022 and 83.9% in 2021.



The support of CLP and CDPQ will help accelerate Apraava Energy's growth as a sustainable power company. Pictured here is Gale Solar Farm.

Apraava Energy is exploring ways to use Paguthan Combined Cycle Power Plant in Gujarat state which ceased operations in 2018. Initial efforts were stalled by the pandemic but have been restarted in recent months.

Outlook

Apraava Energy is strongly positioned to expand its non-carbon portfolio and play an important part in India's energy transition, with the support of CLP and CDPQ. It will continue to focus on becoming a sustainable power company that

invests only in low-carbon growth areas, including renewable generation, transmission, distribution and other customer-focused energy businesses. Following the successful bids of its first smart meter projects, Apraava Energy aims to tap this fast-growing market by securing similar projects across the country.

While CLP targets to phase out all coal-fired projects before 2040, Apraava Energy seeks to operate Jhajjar at an optimal level as it continues to take steps to further increase its efficiency.

Ms Anupama Easwaran

External Member,
Diversity & Inclusion Council,
Apraava Energy



What is your vision for diversity, equality and inclusion at Apraava Energy, and are you happy with the progress made so far?



Rajiv Mishra

Managing Director,
Apraava Energy

The need for diversity, equality and inclusion has never been more pressing. Our goal has been to make sure our organisation reflects the changing demographics we see around us. My vision is for Apraava Energy to be a role model and a leader among Indian companies in diversity, equality and inclusion.

Apart from consciously trying to increase the number of women in the workforce, the aim is to have policies and practices that promote an empathetic, inclusive working environment for our employees in general.

To increase the number of women we hire, we introduced a process of incentivising recruitment consultants in 2019, providing an additional 5% recruitment fee for every woman we hire. When recruiting entry level talent from campus, we maintain a 50/50 gender ratio and provide internships to women whenever possible. Last year, 83% of our campus hires were women graduates. Our progressive policies include the introduction of paid six-month maternity leave, adoption leave and paternity leave, as well as the provision of creche facilities for both men and women.

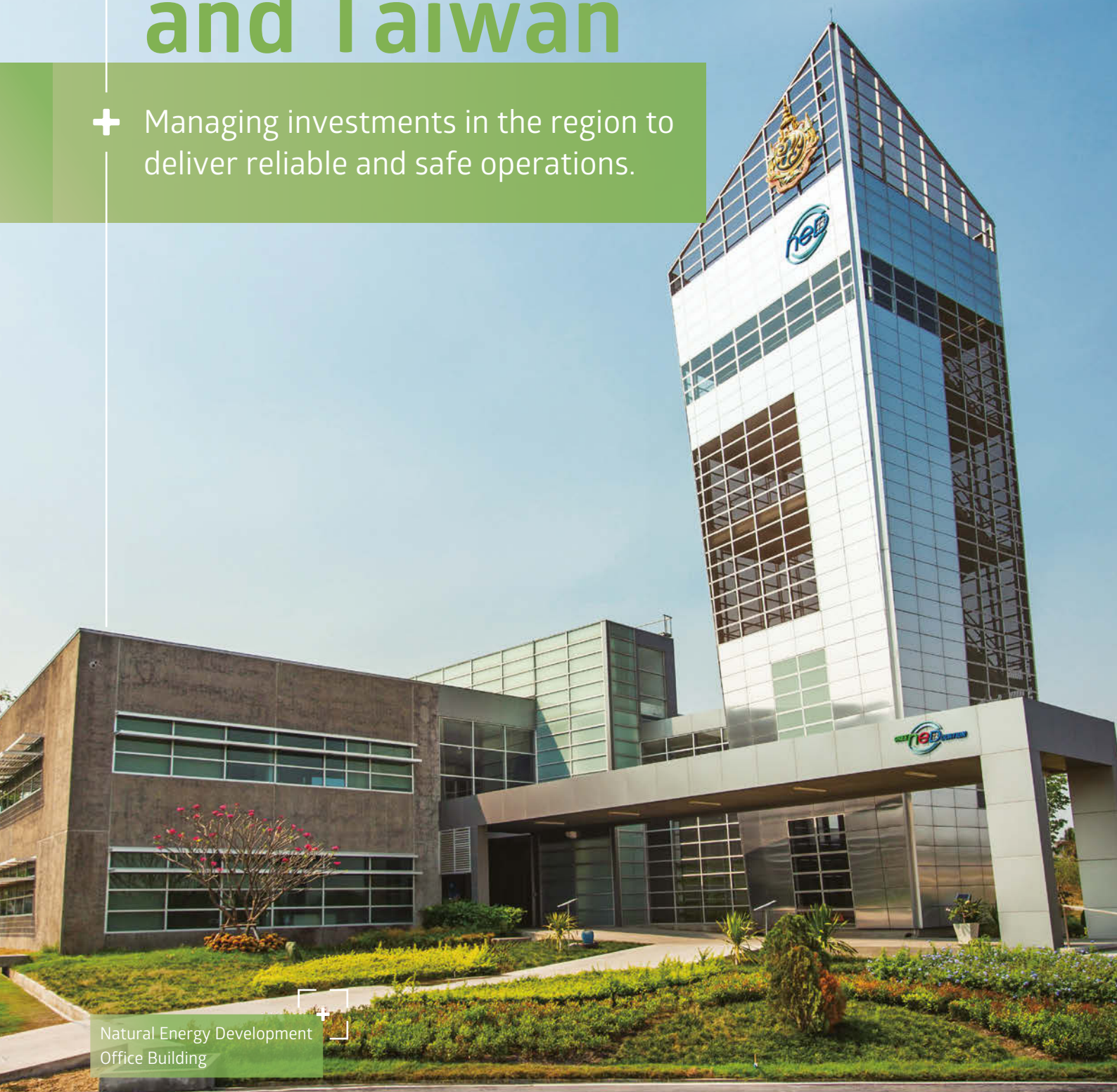
To promote an inclusive culture with the objective of breaking social stereotypes and fostering an environment of openness and empathy, we have held a range of awareness and sensitisation sessions, focusing on unconscious bias, autism, persons with disabilities and the LGBTQ community. Partners of our LGBTQ colleagues are also covered by our medical policy.

The overarching theme of our corporate social responsibility projects, meanwhile, is integrated village development with a focus on women and youth empowerment.

While we are happy with the progress made so far, I am conscious these are still only baby steps and that we must remain committed to the goal of fostering a culture of diversity, equality and inclusion. Anupama, I would like to thank you for being a partner on our journey.

Southeast Asia and Taiwan

+ Managing investments in the region to deliver reliable and safe operations.



Natural Energy Development
Office Building

Southeast Asia and Taiwan

Overview

Ho-Ping Power Station in Taiwan reported reliable operations following the completion of a major overhaul in the first quarter of 2022. The plant's contribution to the Group was significantly impacted by high coal costs during the year. In particular, in the first half of the year the plant's contribution was negative as the energy tariff it received was insufficient to offset the higher coal costs. An amendment to the tariff reimbursement mechanism, effective from July onwards, greatly relieved the margin pressure and led to a minimal profit for the year.

Elsewhere in the region, Thailand's Lopburi Solar Farm performed steadily, however its contribution was lowered by a decrease in the tariff for one phase of the plant, following the expiration of the preferential tariff period.

The operating earnings for Southeast Asia and Taiwan dropped 93.6% to HK\$11 million. CLP's performance in the market is summarised below:

Operating Earnings	2022 HK\$M	2021 HK\$M	Change %
Renewable Energy	16	61	(73.8)
Thermal Energy	3	126	(97.6)
Others	(8)	(14)	42.9
Total	11	173	(93.6)



Outlook

CLP will continue to carefully manage its investments in the region and ensure they perform reliably and safely.



» Stakeholders

Overview	68
Capital Providers	69
Customers	77
Our People	82
Partners	88
Community	92

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

Overview

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](#). 

Capital Providers

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

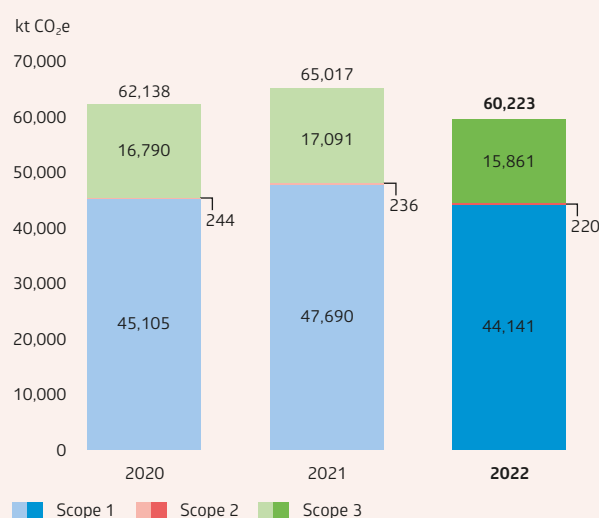
that at least US\$14 trillion (HK\$110 trillion) of additional investments for green infrastructure and technology are needed for the country to achieve its 2060 carbon neutrality goal. Private sector participation is crucial to China's low-carbon transition by delivering market solutions and stimulating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

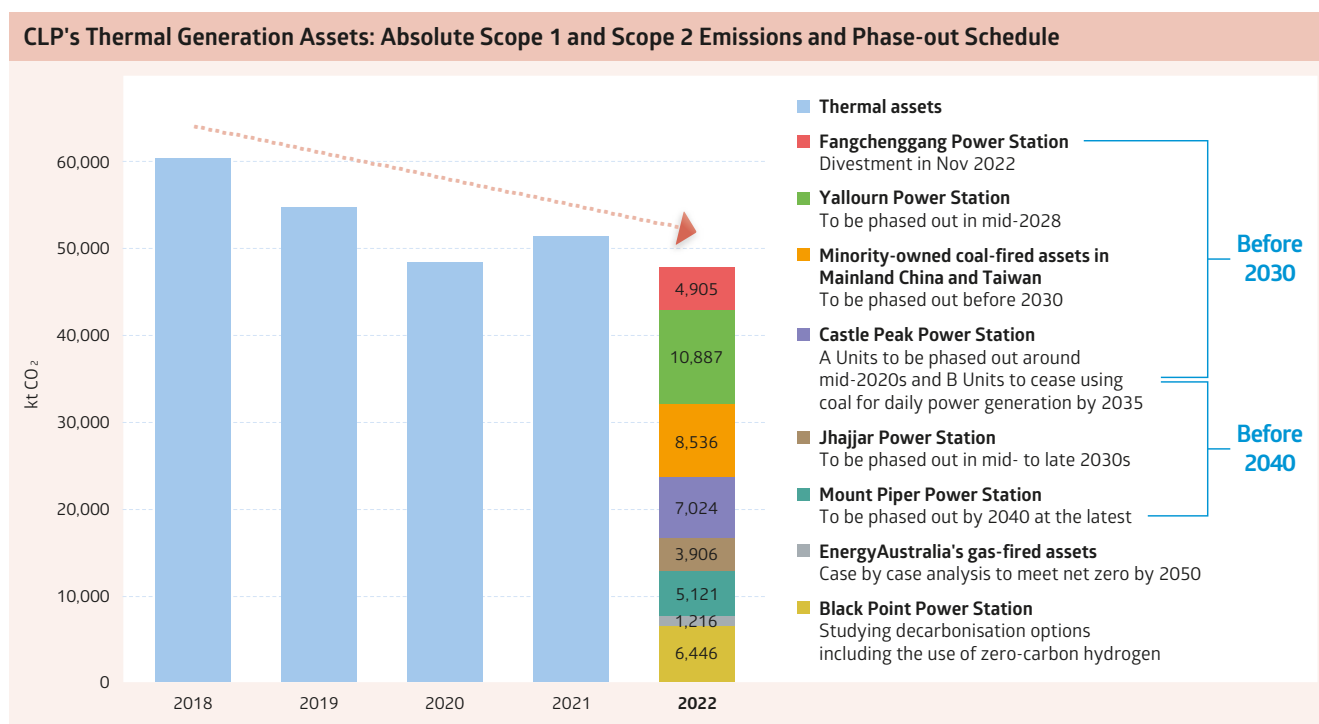
Since 1 January 2022, the Group's minority interests in Shiheng I and II Power Stations in Shandong province were transferred to the local partner. The handover contributed to the drop in the Group's emissions last year, and was in accordance with contractual arrangements agreed with the partner.

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.

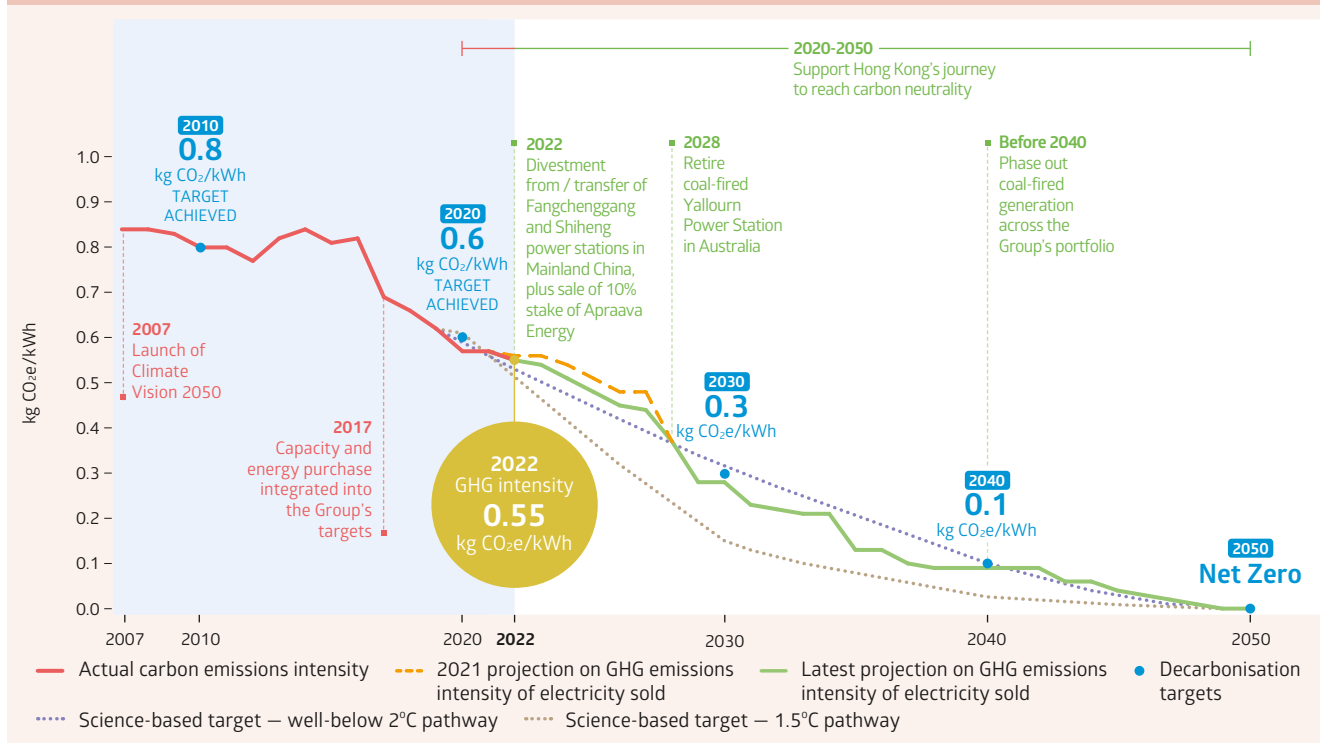
Under its Climate Vision 2050, CLP is accelerating the Group's exit from coal-fired generation before 2040. EnergyAustralia's Yallourn Power Station is scheduled for retirement in mid-2028 and Mount Piper Power Station by 2040 at the latest. CLP also aims to exit its minority-owned coal investments in 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).



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

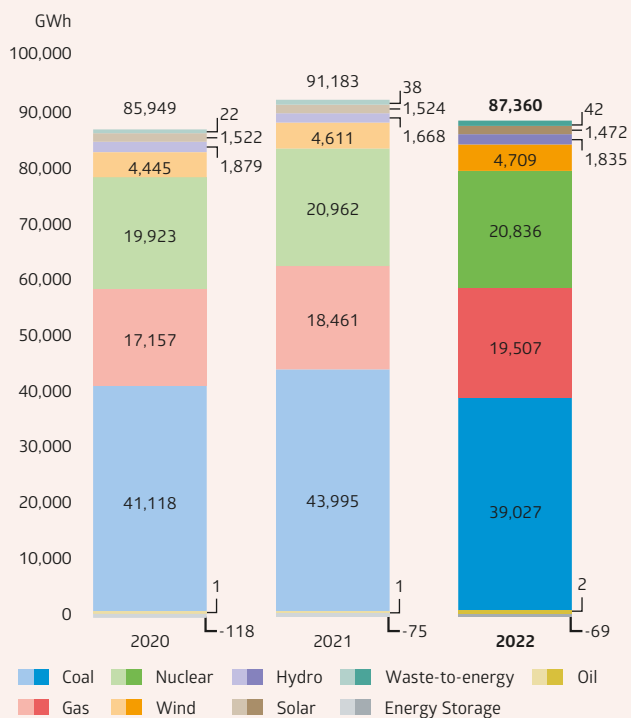
In tandem with the gradual phase out of coal-based assets, CLP continued to pursue investments in lower-carbon generation and diversified energy solutions. Capital investments increased 13% to HK\$16,009 million as CLP focused on decarbonising its businesses in Hong Kong, Mainland China, Australia and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

Energy Sent Out by Asset Type



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

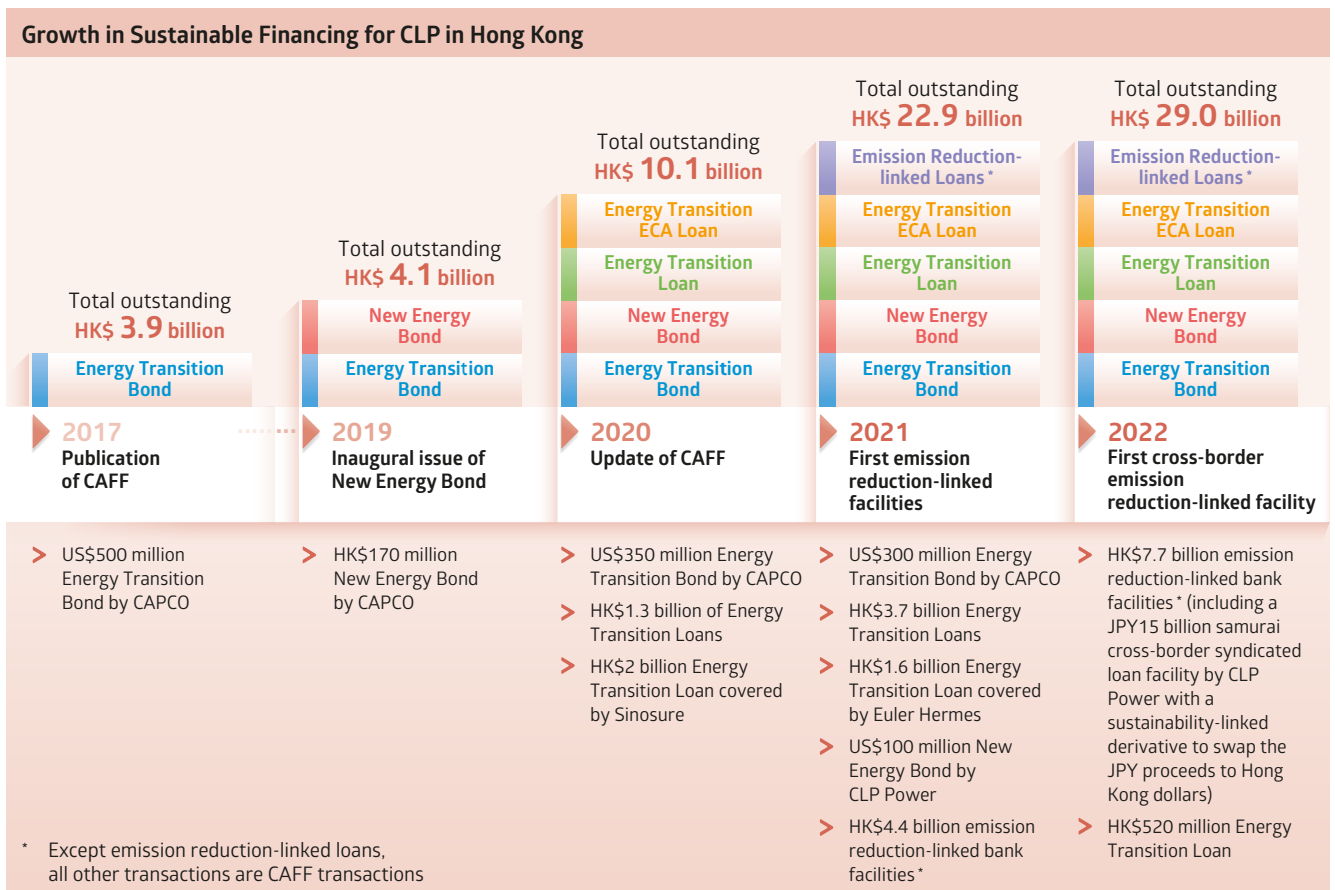
Note:

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.

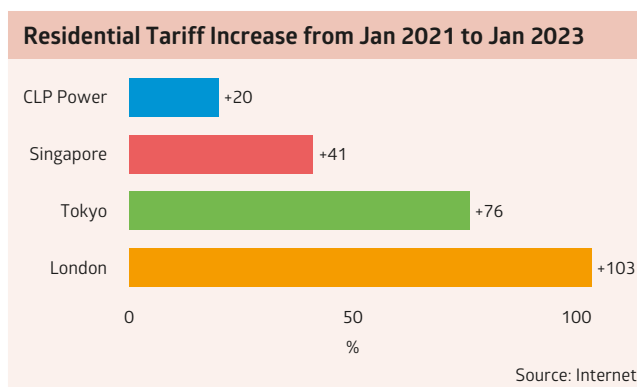
EnergyAustralia is developing the new Tallawarra B hybrid natural gas and hydrogen generator in New South Wales to ensure more renewable energy can enter Australia's electricity market reliably. EnergyAustralia has also received planning approval for the 350MW Wooren battery storage system to be located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



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.

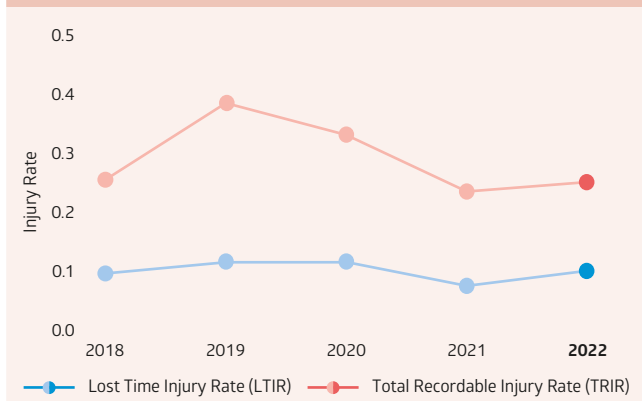
The Group launched an updated multi-year health, safety and environment (HSE) strategy with a focus on creating safer work processes through improved organisational learning. The strategy will further strengthen CLP's efforts to prevent fatalities and serious incidents while driving increased digitalisation 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.

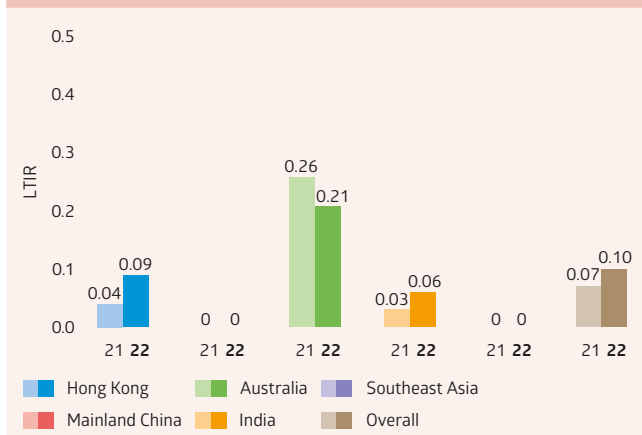
In 2022, the total recordable injury rate (TRIR) and lost time injury rate (LTIR) for employees and contractors were marginally higher than a year earlier, mostly related to maintenance activity at Castle Peak Power Station. There was a reduction in injury rates at EnergyAustralia, reflecting ongoing 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.

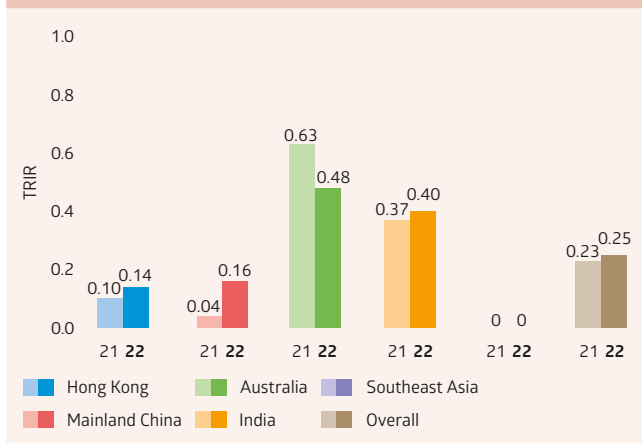
Group Lost Time Injury Rate and Total Recordable Injury Rate



Lost Time Injury Rate at Regional Level



Total Recordable Injury Rate at Regional Level



Notes:

- 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.
- 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.

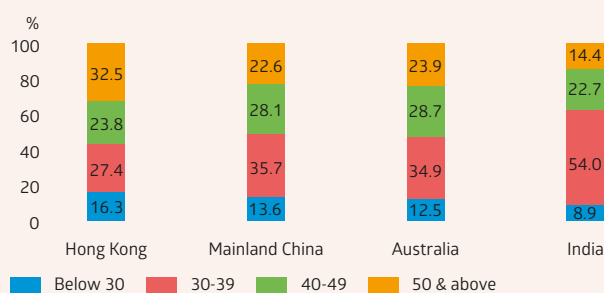
To increase their awareness of and ability to manage mental health and emotional issues in the workplace, senior leaders attended mindset and resilience programmes.

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.

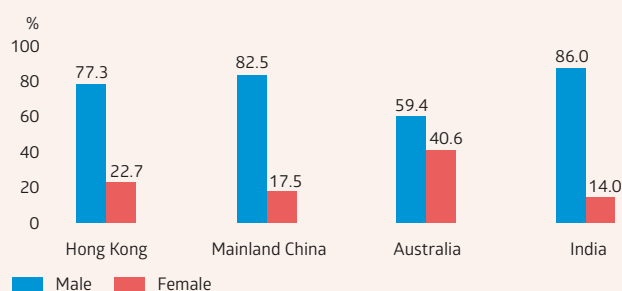
EnergyAustralia in November announced the launch of a Power Your Future programme, a A\$10 million (HK\$52 million) package providing transitional support to workers at Yallourn Power Station ahead of its planned closure in mid-2028. The programme has been designed and launched in partnership with the 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 Veltoor 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.

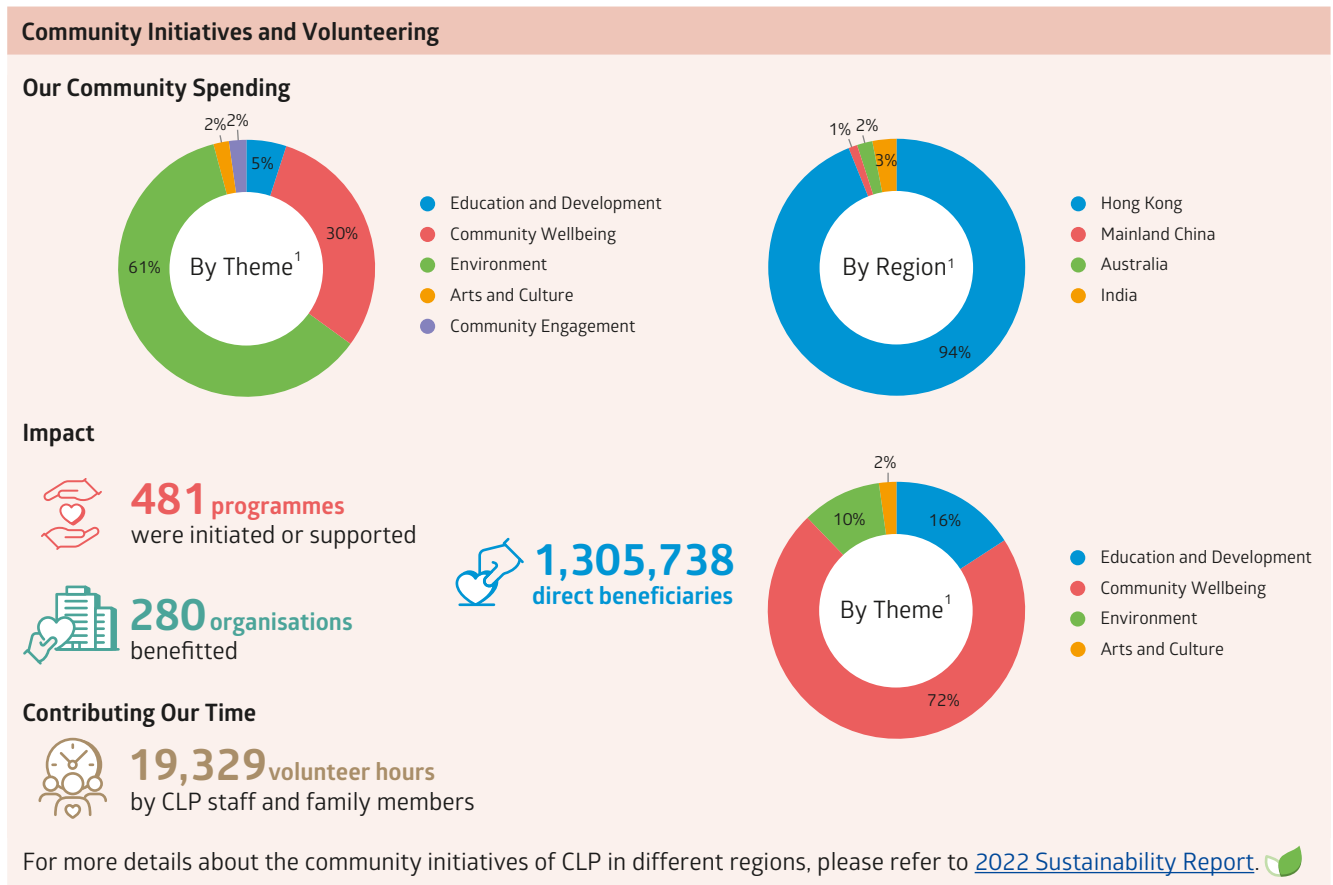
To help youths in incarceration acquire skills and knowledge, and enable those released from detention to reintegrate into society, CLP Power collaborated with the Correctional Services Department to organise events to provide career guidance and training for 100 young inmates.

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 Jhajjar Power Station supported by Apraava Energy provided training to about 3,000 women on topics ranging from entrepreneurship and vegetable growing.



Note:

¹ Figures include rounding adjustments.

CLP 中電

中電控股有限公司 CLP Holdings Limited

2022 股東周年大會
Annual General Meeting

> Governance

Board of Directors	100
Senior Management	108
Corporate Governance Report	110
Risk Management Report	143
Audit & Risk Committee Report	156
Sustainability Committee Report	164
Nomination Committee Report	170
Human Resources & Remuneration Committee Report	175
Directors' Report	194

Our corporate governance practices continue to evolve to ensure they remain fit for purpose.

Board of Directors

Non-executive Directors



The Honourable Sir Michael Kadoorie + Chairman

Aged 81 + Appointed on 19 January 1967* + Father of Philip Lawrence Kadoorie

Expertise

- Board / board committees leadership - CLP market experience
- Global market experience - Other industries - Other listed board roles
- Related industry experience (Infrastructure / Power / Property / Retail)

Titles, Qualifications and Education

Gold Bauhinia Star
Commandeur de la Légion d'Honneur
Commandeur de l'Ordre des Arts et des Lettres
Commandeur de l'Ordre de la Couronne
Commandeur de l'Ordre de Leopold II
Honorary Doctor of Laws
Honorary Doctor of Science

Other Major Offices

The Hongkong and Shanghai Hotels, Ltd.#
(Non-executive Chairman, and Chairman of
Nomination Committee and Executive Committee)
Sir Elly Kadoorie & Sons Ltd.^ (Director)
Heliservices (Hong Kong) Ltd. (Chairman)



Andrew Clifford Winawer Brandler + Vice Chairman (Chairman)

Aged 66 + Appointed on 6 May 2000

Expertise

- Board / board committees leadership - CLP market experience - Company executive
- Global market experience - Other industries - Other listed board roles - Professional (Accounting)
- Related industry experience (Infrastructure / Power / Property / Retail) - Risk & compliance

Titles, Qualifications and Education

Member of the Institute of Chartered Accountants
in England and Wales
Master of Arts, the University of Cambridge
Master in Business Administration, Harvard
Business School

Tai Ping Carpets International Ltd.#

(Non-executive Director)
MTR Corporation Ltd.# (Independent Non-executive
Director, Chairman of Finance & Investment
Committee, and member of Audit & Risk Committee)

Major Positions Held with the Group

EnergyAustralia Holdings Ltd. (Director)

Public Service

Hong Kong Golf Association Ltd. (Alternate Director)
The Chinese International School Foundation
(Chairman of the Board of Governors)

Other Major Offices

The Hongkong and Shanghai Hotels, Ltd.#
(Non-executive Deputy Chairman,
Chairman of Finance Committee, and member of
Audit Committee, Remuneration Committee
and Executive Committee)
Sir Elly Kadoorie & Sons Ltd.^ (Chairman)

Past Experience

Mr Brandler was the Group Managing Director and Chief
Executive Officer of CLP Holdings from 6 May 2000 to
30 September 2013. He continued to serve on the
Board of CLP Holdings as an Executive Director until
his resignation as a Non-executive Director on
1 April 2014.

 These Directors will stand for election or re-election at the 2023 Annual General Meeting (AGM)

 Audit & Risk Committee

 Finance & General Committee

 Human Resources & Remuneration Committee

 Nomination Committee

 Sustainability Committee

* The date given is that of appointment to the Board of China Light & Power Company, Ltd., the holding company of the CLP Group prior to the Group Reorganisation in 1998. All of these Directors were appointed to the Board of CLP Holdings on 31 October 1997.



John Andrew Harry Leigh

Aged 69 + Appointed on 10 February 1997*

Expertise

- CLP market experience - Company executive - Global market experience
- Other industries - Other listed board roles - Professional (Legal)
- Related industry experience (Power / Property) - Risk & compliance

Other Major Offices

The Hongkong and Shanghai Hotels, Ltd.[#]
(Non-executive Director, and member of
Executive Committee and Finance Committee)
Sir Elly Kadoorie & Sons Ltd.[▲] (Director)

Past Experience

Prior to joining the CLP Group in 1986, Mr Leigh was in private practice as a solicitor in Hong Kong and the UK. He was the Senior Legal Advisor, Company Secretary and General Manager – Corporate Affairs in the CLP Group between 1986 and 1996.



Philip Lawrence Kadoorie

Aged 31 + Appointed on 7 August 2018 + Son of The Honourable Sir Michael Kadoorie

Expertise

- CLP market experience - Global market experience
- Other industries - Other listed board roles
- Related industry experience (Property)

Titles, Qualifications and Education

Bachelor of Science in Communication,
Boston University
FAA Commercial Pilot's Licence
Intensive Putonghua course, Tsinghua
University (Beijing)

Other Major Offices


The Hongkong and Shanghai Hotels, Ltd.[#]
(Non-executive Director)
Sir Elly Kadoorie & Sons Ltd.[▲] (Director)
Heliservices (Hong Kong) Ltd. (Director)
Metrojet Ltd. (Director)
CK Hutchison Holdings Ltd.[#]
(Independent Non-executive Director)

Past Experience

Prior to his appointment to the Board of The Hongkong and Shanghai Hotels, Ltd.[#] in 2017, Mr Kadoorie completed various internships in commercial property companies, Schroders Bank in London and at CLP Group in Hong Kong.

[#] The securities of these companies are currently listed on the Hong Kong Stock Exchange or overseas stock exchange(s).

[▲] Sir Elly Kadoorie & Sons Ltd. oversees a number of Kadoorie Family interests in Hong Kong and overseas and, as such, is associated with the substantial shareholders of CLP Holdings as disclosed in the Directors' Report.

Full particulars of [Directors](#), including their directorships in the subsidiary companies of CLP Holdings, other directorships held in the last three years in public listed companies and other major appointments are available on our website. 

Non-executive Director



Yuen So Siu Mai Betty

Aged 65 + Appointed on 1 January 2023

Expertise

- Board / board committees leadership – CLP market experience
- Company executive – Global market experience – Other industries
- Professional (Accounting) – Related industry experience (Power) – Risk & compliance

Titles, Qualifications and Education

Justice of the Peace
Chartered Professional Accountant
Bachelor of Commerce, the University of Toronto

Hong Kong Trade Development Council
(Ex-officio Member)
HKSAR Human Resources Planning Commission
(Member)

Major Positions Held with the Group

CLP Power Hong Kong Ltd. (CLP Power) (Chairman)
Castle Peak Power Company Ltd. (Chairman)

Past Experience

A qualified accountant by training, Mrs Yuen began her career in public accounting in Canada and worked for ExxonMobil for 13 years before joining CLP in 1999. She was the Managing Director of CLP Power between 2002 and 2009, with overall responsibility for the operations of the Hong Kong business. Mrs Yuen was appointed as the Vice Chairman of CLP Power in 2010, with a primary focus on the strategic direction of the Group's electricity business in Hong Kong and Mainland China.

Other Major Offices

Sir Elly Kadoorie & Sons Ltd. [▲] (Special Advisor)

Public Service

Hong Kong General Chamber of Commerce
(Chairman)
HKSAR Election Committee (Member)

Independent Non-executive Directors



Sir Roderick Ian Eddington

Aged 73 + Appointed on 1 January 2006

Expertise

- Board / board committees leadership – CLP market experience – Company executive
- Global market experience – Other industries – Other listed board roles – Professional (Engineering)
- Related industry experience (Infrastructure / Property / Retail) – Risk & compliance

Titles, Qualifications and Education

Officer of the Order of Australia
1974 Rhodes Scholar, the University of
Western Australia
Doctor of Philosophy in the Department of
Engineering Science, the University of Oxford

Lion Pty Ltd. (Non-executive Chairman)
Squadron Energy Pty Ltd.
(Member of Advisory Board)

Other Major Offices


Kirin Holdings Company Ltd. [#]
(Independent Non-executive Director)
John Swire & Sons (Australia) Pty Ltd.
(Non-executive Director)
JP Morgan Chase Bank N.A. (Non-executive
Chairman (Asia Pacific Advisory Council))

Past Experience

Sir Rod Eddington was the Chief Executive of British Airways plc from 2000 until he retired on 30 September 2005. He has maintained a connection with Hong Kong from his previous directorships with Cathay Pacific Airways Ltd. [#], Swire Pacific Ltd. [#] and Hong Kong Aircraft Engineering Company Ltd. during the period from 1988 to 1996.



Nicholas Charles Allen **A** (Chairman) **H** (Chairman) **N** (Chairman) **F** **S**

Aged 67  Appointed on 12 May 2009

Expertise

- Board / board committees leadership - CLP market experience - Global market experience
- Other industries - Other listed board roles - Professional (Accounting)
- Related industry experience (Property / Retail) - Risk & compliance - Technology

Titles, Qualifications and Education

Fellow of the Institute of Chartered Accountants in England and Wales
Member of the Hong Kong Institute of Certified Public Accountants
Bachelor of Arts in Economics / Social Studies, the University of Manchester

Hong Kong Exchanges and Clearing Ltd.[#]
(Independent Non-executive Director, and member of Audit Committee and Risk Committee)
The London Metal Exchange
(Non-executive Director)

Past Experience

Mr Allen joined Coopers & Lybrand (C&L) in London in 1977 and was transferred to C&L Hong Kong in 1983. He was admitted to partnership in C&L Hong Kong in 1988, which was subsequently merged with Price Waterhouse into PricewaterhouseCoopers (PwC) in 1998. Mr Allen retired from PwC in 2007.

Other Major Offices

Link Asset Management Ltd.[#] (as manager of Link Real Estate Investment Trust)
(Independent Non-executive Chairman, and Chairman of Nomination Committee and Finance and Investment Committee)



Law Fan Chiu Fun Fanny **A** **H** **S**

Aged 70  Appointed on 17 August 2011 and reappointed on 1 August 2012

Expertise

- Board / board committees leadership - CLP market experience - Global market experience
- Other industries - Other listed board roles - Public administration
- Related industry experience (Infrastructure / Power / Property / Retail) - Risk & compliance - Technology

Titles, Qualifications and Education

Grand Bauhinia Medal
Gold Bauhinia Star
Justice of the Peace
Bachelor of Science (Hon.), the University of Hong Kong (Outstanding Alumnus of the Science Faculty)
Master in Public Administration, Harvard University (Littauer Fellow)
Master in Education, the Chinese University of Hong Kong (Dean's List)

Nameson Holdings Ltd.[#]
(Independent Non-executive Director)
New World Development Co., Ltd.[#]
(Independent Non-executive Director and member of Sustainability Committee)

Public Service

Our Hong Kong Foundation
(Member of the Research Council)
SEED Foundation (Advisor)

Past Experience

Prior to her retirement from the civil service in 2007, Mrs Law was the Commissioner of the Hong Kong Independent Commission Against Corruption. During her 30 years in the civil service, Mrs Law has worked in many fields, including medical and health, economic services, housing, land and planning, home affairs, social welfare, civil service, transport and education. Mrs Law was also a Member of the Executive Council of The Government of Hong Kong SAR from 2012 to 2022.

Other Major Offices

China Taiping Insurance Holdings Co., Ltd.[#]
(Independent Non-executive Director, and member of Audit Committee, Remuneration Committee and Nomination Committee)
China Unicom (Hong Kong) Ltd.[#]
(Independent Non-executive Director, and member of Audit Committee and Nomination Committee)
Minmetals Land Ltd.[#]
(Independent Non-executive Director, Chairman of Remuneration Committee, and member of Audit Committee and Nomination Committee)

Independent Non-executive Directors



Zia Mody H

Aged 66 + Appointed on 2 July 2015

Expertise

- CLP market experience - Global market experience
- Other industries - Other listed board roles - Professional (Legal)
- Related industry experience (Property) - Risk & compliance - Technology

Titles, Qualifications and Education

Member of the New York State Bar by examination
Advocate with the Bar Council of Maharashtra and Goa
Bachelor of Laws, the University of Cambridge
Master of Laws, Harvard Law School

Other Major Offices

AZB & Partners (AZB) (Senior Partner)
Ascendas Property Fund Trustee Pte. Ltd.
(as trustee-manager of Ascendas India Trust[#])
(Independent Director, and member of Audit and
Risk Committee and Investment Committee)

Public Service

Cambridge India Research Foundation
(Non-executive Director)
ICCA Foundation, Inc. (the International Council
for Commercial Arbitration) (Non-executive member
of the Governing Board)
J. B. Petit High School for Girls (Trustee)
Observer Research Foundation (Non-executive trustee)

Past Experience

Mrs Mody worked as a corporate associate at
Baker & McKenzie in New York for five years
before establishing the Chambers of Zia Mody in
India in 1984, which then became AZB in 2004.



May Siew Boi Tan A F H N S

Aged 67 + Appointed on 7 August 2018

Expertise

- CLP market experience - Company executive - Global market experience
- Other industries - Other listed board roles - Professional (Accounting)
- Related industry experience (Property / Retail) - Risk & compliance

Titles, Qualifications and Education

Fellow of the Institute of Chartered Accountants
in England and Wales
Fellow of the Hong Kong Institute of Certified
Public Accountants
Graduated from the University of Sheffield

Other Major Offices

JPMorgan China Growth & Income plc[#]
(Independent Non-executive Director)
Manulife Financial Corporation[#]
(Independent Director, and member of
Management Resources and Compensation
Committee and Risk Committee)
Anticimex New TopHolding AB (Board member)
MSIG Insurance (Hong Kong) Ltd. (Director)

Public Service

Asian Corporate Governance Association Limited
(Council member)
Hong Kong Youth Arts Foundation
(Executive Committee member)

Past Experience

Ms Tan was an Executive Director of Standard
Chartered Bank (Hong Kong) Ltd. and its Chief
Executive Officer from July 2014 to February 2017.
She joined Standard Chartered Bank in 2009 as
Global Head, Equity Corporate Finance.

In public service, Ms Tan was the Chairman of The
Hong Kong Association of Banks, the ex-officio member
of Hong Kong Trade Development Council and
a member of the Currency Board Sub-Committee of
The Exchange Fund Advisory Committee of Hong Kong
Monetary Authority. She was a member of the Listing
Committee of The Stock Exchange of Hong Kong Ltd.
(from 2012 to 2015) and a member of the Takeovers
and Mergers Panel and the Takeovers Appeal
Committee of the Securities and Futures Commission
(from 2001 to 2013). Ms Tan was also a Council
Member (from 2008 to 2017) and the Vice Chairman
(from 2012 to 2017) of Oxfam Hong Kong.



Christina Gaw **F S**

Aged 50 + Appointed on 20 October 2020

Expertise

- CLP market experience
- Company executive
- Global market experience
- Other industries
- Other listed board roles
- Related industry experience (Property)

Titles, Qualifications and Education

Bachelor of Science in Business Administration, the University of San Francisco

Other Major Offices

Gaw Capital Partners (Managing Principal, Head of Capital Markets, Co-chair of Alternative Investments and Head of GCP Singapore)
 Pioneer Global Group Ltd.[#] (Executive Director)
 VNG Corporation (Board Director)

Public Service

Cheltenham Ladies College UK (Corporate member)
 Hong Kong International School (Board member)
 InspiringHK Sports Foundation (Board member)
 Lingnan University (Council member)

St. Paul's Co-educational College Alumni Association (Executive Committee Vice Chair)
 Teach for Hong Kong (Board member)
 The Stock Exchange of Hong Kong Ltd. (Member of the Listing Committee)
 The TWGH's S.C. Gaw Memorial College (School supervisor)

Past Experience

Prior to joining Gaw Capital Partners in 2008, Ms Gaw had over 15 years of investment banking experience at Goldman Sachs and UBS as a Managing Director, with responsibilities as Head of Asia Equities Distribution and as Head of APAC Capital Introduction in Equities Division.



Chunyuan Gu **A F**

Aged 64 + Appointed on 20 October 2020

Expertise

- CLP market experience
- Company executive
- Global market experience
- Other industries
- Other listed board roles
- Professional (Engineering)
- Related industry experience (Power)
- Technology

Titles, Qualifications and Education

Bachelor of Engineering, School of Mechanical Engineering, Shanghai Jiao Tong University
 Doctor of Engineering, School of Aeronautics, Royal Institute of Technology, Stockholm
 General Management Program at Stockholm School of Economics

Other Major Offices

ABB (China) Ltd. (Chairman of the Board)
 COSMO IoT Technology Co., Ltd. (Independent Director)
 NXP Semiconductors N.V.[#] (Non-executive Director, and member of Audit Committee)
 Blackstone, Inc.[#] (Senior advisor)
 NSK Ltd.[#] (Member of the China advisory council)

Public Service

China EV 100 (Member)
 Chinese Association of Automation (Managing Director)
 Royal Swedish Academy of Engineering Sciences (International member)
 The Guangdong Government (Economic advisor to the Governor of Guangdong Province)

Past Experience

Mr Gu has over 30 years of experience working at ABB Ltd.[#] (ABB), a global pioneering technology leader in electrification and automation serving customers in utility, industry, transportation and infrastructure. Mr Gu was a member of the ABB Group Executive Committee and President of the Asia, the Middle East and Africa region and President of ABB (China) Ltd. He remains engaged by ABB in an advisory capacity as the Chairman of the Board of ABB (China) Ltd.

Independent Non-executive Director



Chan Bernard Charnwut

Aged 58 + Appointed on 18 October 2022

Expertise

- Board / board committees leadership
- CLP market experience
- Company executive
- Global market experience
- Other industries
- Other listed board roles
- Public administration
- Related industry experience (Infrastructure)
- Risk & compliance

Titles, Qualifications and Education

Grand Bauhinia Medal
 Gold Bauhinia Star
 Justice of the Peace
 Bachelor of Arts degree, Pomona College,
 California, USA

Other Major Offices

Asia Financial Holdings Ltd.#
 (Chairman & President, Executive Director,
 Chairman of Executive Committee, member
 of Compliance Committee, Remuneration
 Committee, Nomination Committee,
 Risk Committee and Investment Committee)

Cathay Pacific Airways Ltd.#
 (Independent Non-executive Director,
 member of Nomination Committee and
 Remuneration Committee)

China Resources Beer (Holdings) Company Ltd.#
 (Independent Non-executive Director,
 member of Audit Committee and
 Nomination Committee)

Chen Hsong Holdings Ltd.#
 (Independent Non-executive Director,
 Chairman of Remuneration Committee,
 member of Audit Committee, Nomination
 Committee and Corporate Governance
 Committee)

Yau Lee Holdings Ltd.#
 (Independent Non-executive Director,
 Chairman of Remuneration Committee
 and Corporate Governance Committee,
 member of Audit Committee and
 Nomination Committee)

Bumrungrad Hospital Public Company Ltd.#
 (Director, member of Investment Committee)

Bank Consortium Holding Ltd. (Director)

Bangkok Bank (China) Company Ltd. (Advisor)

Public Service

The National People's Congress of the People's
 Republic of China (Hong Kong Deputy)

The Hong Kong Jockey Club (Steward)

Hong Kong-Thailand Business Council (Chairman)

Independent Commission Against Corruption
 (Chairman of Operations Review Committee and
 ex-officio member of Advisory Committee on
 Corruption)

Hong Kong Monetary Authority
 (Committee member of The Financial
 Infrastructure and Market Development
 Sub-Committee, The Exchange Fund Advisory
 Committee and The Governance Sub-Committee)

M+ Museum (Chairman)

The Hong Kong Council of Social Service (Chairperson)

Hong Kong Chronicles Institute
 (Chairman of the Executive Committee)

Our Hong Kong Foundation
 (Executive Vice Chairman of Board of Governors)

West Kowloon Cultural District Authority
 (Vice-Chairman)

The Jockey Club CPS Ltd. (Director)

Tai Kwun Culture & Arts Co. Ltd. (Chairman)

Alibaba Entrepreneur Fund Hong Kong
 (Governing Board Member)

Pomona College (Trustee Emeritus)

Past Experience

Mr Chan has over 20 years of experience working
 with the Hong Kong Government and has extensive
 experience in the insurance and financial markets
 in Asia. He was, until 30 June 2022, the immediate
 past Convenor of the Non-Official Members of the
 Executive Council of the previous Administration of
 the HKSAR (since 1 July 2017).

Executive Director



Richard Kendall Lancaster + Chief Executive Officer (CEO) **S** (Chairman) **F**

Aged 61 + Appointed on 3 June 2013

Expertise

- Board / board committees leadership
- CLP market experience
- Company executive
- Global market experience
- Professional (Engineering)
- Related industry experience (Power)
- Risk & compliance

Titles, Qualifications and Education

Bachelor of Engineering in electrical engineering, the University of New South Wales

Public Service

Business Environment Council (Immediate Past Chairman)
Hong Kong Management Association (Fellow)
Operations Review Committee of the Independent Commission Against Corruption (Member)
Panel of the Witness Protection Review Board of the Independent Commission Against Corruption (Member)
The Australian Chamber of Commerce Hong Kong & Macau (Founding member of the Advisory Council)
UNSW Hong Kong Foundation (Board member)
World Business Council for Sustainable Development (Council member) (member of the Climate and Energy Cluster Board)
World Energy Council (Hong Kong Member Committee) (Chairman)

Past Experience

Prior to assuming his role of CEO in September 2013, Mr Lancaster was the Managing Director of CLP Power for three years, responsible for its electricity generation, transmission and distribution business and service to its customers in Hong Kong. He began his career with the Electricity Commission of New South Wales in Australia and has more than 30 years of experience in the power industry and in other industrial operations in Australia, UK and Hong Kong. Mr Lancaster joined CLP in 1992 and has held a variety of managerial positions in CLP. His experience covers project management, power plant operations, commercial, finance, legal and corporate functions.

Senior Management

+ Rajiv Ranjan Mishra

Managing Director – India, aged 57

Titles, Qualifications and Education

Advanced Management Program Graduate, Harvard Business School
Master of Business Administration, the Indian Institute of Management, Lucknow

Bachelor in Chemical Engineering (first class distinction), BIT Sindri

Major Responsibilities Held with the Group

Mr Mishra is responsible for running CLP's business in India. He joined the CLP Group in 2002 and has over 25 years of experience in the power industry, both in India and internationally, mostly involved in project financing, investment appraisal, finance and accounting and general management.

+ Eileen Burnett-Kant

Chief Human Resources Officer, aged 54

Titles, Qualifications and Education

Master of Business Administration, the University of Melbourne


Master of Engineering, the University of Strathclyde

Major Responsibilities Held with the Group

Ms Burnett-Kant joined CLP Holdings and was appointed as Chief Human Resources Officer in September 2019. She is responsible for all human resources related matters across the Group.

P Provident & Retirement Fund Committee

S Sustainability Committee

Full particulars of [Senior Management](#), including their directorships in the subsidiary companies of CLP Holdings, other major appointments and past experience are available on our website. 

+ Chiang Tung Keung

Managing Director – CLP Power, aged 56

Titles, Qualifications and Education

Chartered Engineer

Member of the Institution of Engineering and Technology

Fellow of the Hong Kong Institution of Engineers

Honorary Fellowship of the Vocational Training Council

Master of Science in Electrical Engineering, the Hong Kong Polytechnic University

Master of Business Administration, the Chinese University of Hong Kong

Bachelor of Science in Electrical & Electronic Engineering, the University of Hong Kong

Major Responsibilities Held with the Group

Mr Chiang is the Managing Director of CLP Power and holds overall responsibility for the operations of CLP's Hong Kong regulated business, which includes a vertically integrated electricity utility serving customers in Kowloon, the New Territories and most of the outlying islands.

+ David John Simmonds

Chief Strategy, Sustainability and Governance Officer, aged 52

Titles, Qualifications and Education

Fellow of the Chartered Governance Institute in UK

Fellow of the Hong Kong Chartered Governance Institute

Bachelor of Laws (Honours), the University of Melbourne

Bachelor of Commerce, the University of Melbourne

Major Responsibilities Held with the Group

Mr Simmonds is responsible for CLP Group strategic planning and the strategy agenda as well as driving the Group's sustainability agenda and ensuring that it is embedded into the business.

He is also responsible for managing the investments and ventures that help support CLP's growth strategy, the Group's investments in Southeast Asia and Taiwan and the Group's property development activities.

In addition, Mr Simmonds is the Group General Counsel of CLP Holdings, responsible for the provision of legal, corporate secretarial and insurance services across the Group.

+ Nicolas Alain Marie Tissot

Chief Financial Officer (CFO), aged 56

Titles, Qualifications and Education

Diploma in Business Administration, HEC Paris

Inspecteur des Finances, the École Nationale d'Administration

Major Responsibilities Held with the Group

Mr Tissot is the CFO of CLP Holdings and is responsible for overseeing the Group's financial control and reporting, treasury, tax, corporate finance and investment, risk management and investor relations.

+ Chong Wai Yan Quince

Chief Corporate Development Officer, aged 59

Titles, Qualifications and Education

Justice of the Peace

Bachelor of Social Science, the Chinese University of Hong Kong

Major Responsibilities Held with the Group

Ms Chong joined CLP Power on 1 September 2012 as Chief Corporate Development Officer and is a Director of CLP Power. She is responsible for CLP Group's corporate affairs, overseeing communications, external relations and stakeholder engagement matters. Her role helps promote CLP's reputation, drive service excellence and strengthen ties with customers, stakeholders and the community as a whole.

+ Mark Richard Collette

Managing Director – EnergyAustralia, aged 45

Titles, Qualifications and Education

Graduate Member of the Australian Institute of Company Directors

Postgraduate Diploma of Economics, the University of Melbourne

Bachelor of Engineering (Aerospace), RMIT University

Bachelor of Business (Business Administration), RMIT University

Major Responsibilities Held with the Group

Mr Collette joined CLP Power Australia (now known as EnergyAustralia) in 2003. Prior to being appointed as Managing Director of EnergyAustralia on 1 July 2021, Mr Collette led EnergyAustralia's retail business as Chief Customer Officer and led EnergyAustralia's generation and energy trading business as Executive Energy from July 2015 until May 2019.

+ Derek Parkin

Chief Operating Officer, aged 63

Titles, Qualifications and Education

Registered European Engineer

Fellow of the Chartered Institute of Mining Engineers

Fellow of Institute of Energy

Member of Institute of Directors

FIMM

Master of Business Administration, Staffordshire University

Masters in Philosophy – Engineering, Imperial College London

BSc (Hons) in Mining Engineering, Nottingham University

Major Responsibilities Held with the Group

Mr Parkin was appointed as the Group's Chief Operating Officer in September 2022 and is responsible for the Group's operations, engineering, mega projects construction and procurement and supply chain management. He also leads CLP's occupational health, safety, and environment function. Mr Parkin joined CLP in September 2015, and has served in several capacities including as Group Chief Operating Officer (from 2015 to 2019), leading mega projects execution and developing CLP's project management capability.

+ Law Ka Chun Joseph

Managing Director – China, aged 51

Titles, Qualifications and Education

Chartered Financial Analyst (CFA)

Certified Public Accountant (CPA)

Master of Business Administration (Finance), the University of British Columbia

Bachelor of Commerce (Accounting), the University of British Columbia

Major Responsibilities Held with the Group

Mr Law is responsible for running CLP's China business portfolio with projects encompassing a wide range of energy technologies from nuclear, coal, hydro, wind and solar power, as well as developing and operating high quality renewable and zero-carbon projects.



Rajiv Ranjan Mishra

Chiang Tung Keung

Eileen Burnett-Kant

David John Simmonds

Richard Kendall Lancaster
(Biography is on page 107)

Nicolas Alain Marie Tissot

Derek Parkin

Chong Wai Yan Quince

Law Ka Chun Joseph

Mark Richard Collette

Corporate Governance Report

Message from the Chief Governance Officer



2022 was another year of evolution of our corporate governance practices to ensure they remain fit for purpose.

As part of the introduction of CLP's new operating model, responsibility for governance, sustainability and strategy were brought together under my purview to further embed sustainability into our corporate strategy. The move also reflects CLP's commitment to good governance as an enabler of long-term value creation.

2022 was a particularly difficult year for our industry with energy shocks impacting markets globally. Periods of volatility and uncertainty such as this reinforce the importance of refreshing the Board to ensure that we have the mix of skills and experience necessary to help navigate a changing business environment. During the year, there were several changes in the composition of our Board and Committees as outlined in this Report. CLP remains committed to a process of gradual Board refresh as part of our ongoing efforts to ensure we have the best Board we can to help guide CLP forward.

During the year, we also refreshed the leadership at our subsidiary board level to enable our mid-management to take up leadership and to be accountable at the subsidiary corporate entity level.

We have conducted an External Board Review process with the future readiness of our Board firmly in mind. The review was a timely and valuable exercise and we look forward to progressing implementation of the recommendations in the months ahead.

In 2022, we maintained the double materiality methodology to guide our ESG disclosures in this Report and the [Sustainability Report](#). The global energy shocks of 2022 highlighted the dynamic nature of ESG issues and the impact they have on our stakeholders. These events also underscored the importance of the regular review of strategic priorities that we undertake as part of our materiality assessment process. 🌱

With these practices in place, we are confident that our corporate governance continues to be well positioned to support our business and management team to navigate through the challenges we may face.



David Simmonds
Chief Governance Officer



Board Succession

- > Mr Andrew Brandler, a current Non-executive Director, was appointed as the Vice Chairman of the Board in January 2023.
- > Mr Brandler succeeded Mr William Mocatta as the Vice Chair when Mr Mocatta retired from all his positions at CLP in December 2022.
- > Mr Bernard Chan was appointed as an additional Independent Non-executive Director in October 2022.
- > Mr Chan was identified through an international search process conducted by a firm of consultants, he was regarded as the leading candidate with his unique background and experience, in particular, his senior governmental relations in both Hong Kong and Mainland China.
- > Mrs Betty Yuen was appointed as a Non-executive Director in January 2023 as she transitioned to become a Board Member from CLP's Senior Management team.
- > Mrs Yuen brings with her many years of extensive executive experience at CLP to the Board as a Non-executive Director.

Board Committee Refresh

- > Mr Andrew Brandler succeeded Mr William Mocatta as the Chairman of the Finance & General Committee upon Mr Mocatta's retirement.
- > Ms May Tan will become the new Chair of the Audit & Risk Committee on 28 February 2023 and Mr Nicholas C. Allen, the current Chair will step down but remain as a Member on the Committee.
- > Mr Chunyuan Gu will join the Human Resources & Remuneration Committee on 28 February 2023 and this Committee will comprise five Independent Non-executive Directors, following Mr Mocatta's retirement in December 2022.
- > Mr Bernard Chan joined the Sustainability Committee at the same time as he joined the CLP Holdings Board.

Alignment of Subsidiary Board Leadership with Business and Functional Responsibilities

- > For the CLP Group subsidiaries, the directorships were refreshed with two key objectives.
- > One key objective is to delegate the management of some of the subsidiary boards from the C-suite management to mid-management such that the C-suite management can better focus on the management at the senior leadership level.
- > Another key objective is to empower mid-management to take up the leadership and management of the subsidiary boards whilst ensuring that this would be well aligned with their business / functional responsibilities.

Female Director Representation Target of 30%

- > A target of not less than 30% is set for female Directors representation on the CLP Holdings Board.
- > We recognise that the 30% representation is not a ceiling as we seek to enhance diversity.
- > If the female representation falls below 30%, at times or for an intervening period, we will explain the relevant appointment or change in Board composition and our expectations regarding the return of female Director representation to at least 30% or higher.
- > This target will be reviewed on an annual basis by the Nomination Committee.



Refreshed Board, Board Committees and Subsidiary Boards



Enhanced Board Independence (INED representation at **57%** / average tenure of **7 years**)




Maintaining Board Diversity with a target of **30%** for female Directors representation

How our Purpose, Values, Strategy and Culture are aligned?



The CLP Code: Compliance and more




The Company has its own unique code namely The [CLP Code on Corporate Governance](#) (CLP Code). It is built on CLP’s own standards and experience while respecting the benchmarks set by the Hong Kong Stock Exchange. The CLP Code is on our website and available on request. In 2023, we have updated the CLP Code to reflect the new requirements under the Corporate Governance Code (Corporate Governance Code), Appendix 14 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (Listing Rules). 

Our Code goes beyond the principles of good corporate governance and incorporates the code provisions on a “comply or explain” basis and certain recommended best practices as set out in the Corporate Governance Code. The only exception, however, concerns quarterly reporting, details of which are explained on page 115.




We have made **further enhancements to our corporate governance practices in 2022** and some of these are highlighted in “**2022 At a Glance**”.

Areas in which our Corporate Governance Practices exceed the Hong Kong Stock Exchange Corporate Governance Code

Our Board

- > The composition of the Board, the Audit & Risk Committee and the Human Resources & Remuneration Committee exceed the independence requirements under the Listing Rules.
- > We conduct regular external and internal Board and Board Committee reviews and when completed, we publish a [summary](#) of the conclusions of the external Board review on the CLP website. 
- > With the objective of minimising succession risk, the retirement age guideline in our Board Diversity Policy provides that where a Non-executive Director (other than the Chairman) has reached the age of 72 at the time of the relevant AGM, such Director will not be considered for re-election, however, this may be waived if the Board considers such Director has the skills, experience or capabilities that cannot be replaced at the relevant time.
- > By reference to our Board Diversity Policy, we are committed to the gradual refresh of the Board.
- > We issue a formal letter of appointment for Non-executive Directors. The [model letter](#) is on our website and deals with a range of matters regarding a Director's appointment and responsibilities including an expected level of time commitment. 
- > We have a set of bespoke CLP Onboarding Guidelines for Directors with the key objective of assisting new Directors in their understanding of CLP's business, governance and Board and Committee dynamics. The [Guidelines](#) are available on the CLP website. 

Our disclosure

- > Our Fair Disclosure Policy sets out the principles for the broad and non-exclusionary distribution of information to the public.
- > Our Continuous Disclosure Obligation Procedures guide the organisation in monitoring and disclosing potential inside information.
- > The Continuous Disclosure Committee conducts regular assessment of potential inside information.
- > We adopt a double materiality methodology to identify and report the ESG issues that are financially material to us.
- > We disclose our Senior Management's confirmation of compliance with the Listing Rules Model Code and CLP Code for Securities Transactions, in addition to similar disclosures by our Directors.
- > Our disclosure of financial information on the CLP Group's joint ventures and associates includes off-balance sheet contingent liabilities.
- > We issue individual Board Committee reports in our Annual Report for the Audit & Risk Committee, Sustainability Committee, Nomination Committee and Human Resources & Remuneration Committee.
- > Our Risk Management Report in the Annual Report sets out CLP's risk management framework and how CLP manages the Group's material risks.
- > We announce our financial results within two months after the end of the financial year. The [Annual Report](#) is available on our website within the following fortnight with hardcopies sent to shareholders about two weeks after that. 
- > We have published a separate [Climate-related Disclosures Report](#) since 2021. 
- > We disclose on our website [minutes of our AGM](#); in addition, any questions or topics that are not specifically addressed at the AGM, full answers are provided and disclosed. 

Our unique policies and practices

- > CLP has established its own Corporate Governance Framework, the Value Framework and its own Code for Securities Transactions.
- > We conduct a Group-wide Business Practice Review for our staff on a periodic basis to foster employees' understanding of our Code of Conduct under CLP's Value Framework. An important aspect of this is ensuring that our employees maintain a good understanding of CLP's culture and values.
- > We have a CLP Procurement Values and Principles. This explains our procurement values and principles and we encourage all suppliers to abide by the same values and principles as ourselves, and to adopt the same standards of integrity and transparency in doing business with us.
- > General Representation Letters are issued by our CEO and CFO to the Audit & Risk Committee as attestation of compliance.
- > Our Audit & Risk Committee regularly examines the audit activity reviews conducted by the Internal Auditors. The Internal Auditors highlight the significant events and findings which require the Committee's attention and further examination, where appropriate.
- > Members of our Audit & Risk Committee conduct meetings as between Members only prior to the full Committee meeting attended by management and the auditors; two of which are joined by the independent auditor.
- > For the Group's continuing connected transactions (CCTs), we engage the Company's independent auditor, PwC, to undertake an agreed-upon procedures (AUP) engagement on the Group's CCTs pricing policies. The AUP findings are provided to the Independent Non-executive Directors as part of their consideration of the CCTs for the purposes of giving the required confirmation under Rule 14A.55 of the Listing Rules.

Compliance with the Corporate Governance Code and ESG Reporting Guide of the Hong Kong Stock Exchange

CLP's Approach to Corporate Governance

Throughout the financial year ended 31 December 2022, the Company has complied with the code provisions as well as applied all the principles in the Corporate Governance Code. CLP deviates from only one recommended best practice in the Corporate Governance Code – that an issuer should announce and publish quarterly financial results.

Our Considered Reasons for not Issuing Quarterly Financial Results

While CLP does issue quarterly statements which set out key financial and business information such as electricity sales, dividends and progress in major activities, we do not issue quarterly financial results for the following considered reasons:

- > they do not bring significant benefits to our shareholders;
- > they encourage a short-term view of the Company's business performance;
- > CLP's activities do not run and need not be disclosed and judged on a three-month cycle; and
- > preparation of quarterly reports is costly, including the opportunity cost of Board and management time spent on quarterly reporting.

The exceptional challenges for EnergyAustralia which affected the financial performance were reported in the 2022 First Quarterly Statement as an inside information announcement. The quarterly statements, typically, have not taken such form, however, as the update in the 2022 First Quarterly Statement contained inside information relating to the financial performance of the Group, the Quarterly Statement was issued as an inside information announcement.

CLP's Approach to ESG Reporting

Governance Structure



- > Sustainability is at the heart of CLP's business strategy and the CLP Board has overall responsibility for CLP's ESG reporting and sustainability. The Directors' Report includes the "Board's Statement on ESG", which explains the Board's oversight of sustainability issues and how CLP approaches and manages the ESG topics (page 195).
- > Sustainability governance has been embedded in our corporate governance structure throughout the Group. Set out below is CLP's Sustainability Governance Structure.






- > As one of the Board-level Committees, the Sustainability Committee has a primary role in overseeing the management of the Group's sustainability issues and is supported by the Sustainability Executive Committee. The Audit & Risk Committee, meanwhile, ensures appropriate assurance of the ESG data.
- > Further information about CLP's ESG management approach and how progress on ESG-related goals and targets are reported and reviewed can be found in the Risk Management Report, the Sustainability Committee Report and the Directors' Report of this Annual Report, as well as in the [Sustainability Report](#) and the [Climate-related Disclosures Report](#) published online at the same time as this Annual Report. 🌱🍷

Reporting Principles & Boundaries

- > **Materiality** – Since 2018, materiality assessments have been conducted to consider how megatrends could impact the success of CLP's strategy in the medium- to long-term. In 2021, CLP became an early global adopter of the double materiality methodology which guides the disclosures and discussions on financially material and impact material topics in the Annual Report and Sustainability Report respectively. In 2022, CLP further enhanced its double materiality assessment methodology to identify and assess potential ESG impacts, risks and opportunities, which, in turn, are integrated into the Company's risk management processes and strategic planning. Full details on the materiality assessment are provided in our online [Sustainability Report](#) and in "Board's Statement on ESG" in the Directors' Report. 🌱
- > **Quantitative and Consistency** – CLP's ESG disclosures follow guidelines and recommendations from the SASB Standards for Electric Utilities & Power Generators, the Hong Kong Stock Exchange's ESG Reporting Guide (ESG Reporting Guide) and the Global Reporting Initiative Reporting Standards (GRI Universal Standards 2021). CLP Group's ESG KPIs are provided over a period of five years in the Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data on pages 310 to 313 of the Annual Report (Five-year Summary). Greenhouse gas emissions are reported with reference to World Resources Institute's (WRI) Greenhouse Gas Protocol. In 2022, the Company continued to produce a separate [Climate-related Disclosures Report](#) which follows the Task Force on Climate-related Financial Disclosures (TCFD) recommendations and the IFRS Foundation's International Sustainability Standards Board (ISSB) including Exposure Drafts of S2 Climate-related Disclosures published in March 2022. 🍷

- > **Boundaries** – As our business needs evolve, scenarios may arise where our previously defined reporting scope was not able to fully capture the material impacts of our overall portfolio, and to better reflect these impacts, selected reporting scopes will be adjusted in different aspects. In 2022, key transactions including full disposal of the 70% equity interest in Fangchenggang Power Station and divestment of 10% equity interest in Apraava Energy to CDPQ were reflected and explained fully in our online [Sustainability Report](#) and the [Climate-related Disclosures Report](#).  

ESG Information Disclosure in the 2022 Annual Report, [Sustainability Report](#) and [Climate-related Disclosures Report](#)  

- > Details on how we report on the ESG issues in accordance with the ESG Reporting Guide “comply or explain” requirements and related Listing Rules are set out below.
- > A thorough materiality assessment is the foundation of best practice for ESG strategy and reporting. Our materiality assessment process enabled management to determine which ESG material topics have a potential enterprise value impact (financial materiality) and accordingly disclose these financially material topics to its capital providers and other stakeholders in the Annual Report; these are for reporting purposes under the ESG Reporting Guide. Further information is in the Sustainability as Our Business Strategy on page 22 and the Stakeholders chapters on page 66.
- > ESG topics with material impact to a wide range of stakeholders namely, customers, people, business partners and communities are discussed in CLP’s online [Sustainability Report](#). It is published at the same time as the Annual Report and captures in detail the Company’s delivery of social and environmental value in a rapidly changing environment. With stakeholders’ increasing interest in CLP’s response to climate change and its impact on business, CLP’s standalone [Climate-related Disclosures Report](#) details its decarbonisation strategy, governance and approach to managing climate risks and capitalising on opportunities. In addition, data related to financially material and impact material topics are set out in the Five-year Summary.  
- > The table below sets out the financially material topics by reference to the aspects in the ESG Reporting Guide and discussions and data on these topics can be found in the corresponding chapters of this Annual Report. Aspects A3 (The Environment and Natural Resources) and B8 (Community Investment) in the ESG Reporting Guide are regarded as ESG impact material topics and these are discussed primarily in the [Sustainability Report](#) and are also covered in the “Stakeholders – Community” (page 92) of the Annual Report. 

Environmental	
A1. Emissions (KPI A1.2 and KPI A1.5)	
<ul style="list-style-type: none"> > A Snapshot of CLP in 2022 (page 4) > Chairman’s Statement (page 12) > CEO’s Strategic Review (page 16) > Business Performance and Outlook – Hong Kong (page 40) > Business Performance and Outlook – Mainland China (page 47) 	<ul style="list-style-type: none"> > Business Performance and Outlook – Australia (page 53) > Business Performance and Outlook – India (page 59) > Stakeholders – Capital Providers (page 69) > Stakeholders – Partners (page 88) > Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data (page 310)
A2. Use of Resources (KPI A2.1 and KPI A2.3)	
<ul style="list-style-type: none"> > A Snapshot of CLP in 2022 (page 4) > Stakeholders – Capital Providers (page 69) 	<ul style="list-style-type: none"> > Stakeholders – Customers (page 77) > Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data (page 310)

Environmental

A4. Climate Change

- > A Snapshot of CLP in 2022 (page 4)
 - > Chairman's Statement (page 12)
 - > CEO's Strategic Review (page 16)
 - > Business Performance and Outlook – Hong Kong (page 40)
 - > Business Performance and Outlook – Mainland China (page 47)
 - > Business Performance and Outlook – Australia (page 53)
- > Business Performance and Outlook – India (page 59)
 - > Stakeholders – Capital Providers (page 69)
 - > Stakeholders – Customers (page 77)
 - > Stakeholders – Partners (page 88)
 - > Stakeholders – Community (page 92)
 - > Governance (page 98)
 - > Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data (page 310)

Social

B1. Employment

- > A Snapshot of CLP in 2022 (page 4)
 - > Stakeholders – Our People (page 82)
- > Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data (page 310)

B2. Health and Safety

- > A Snapshot of CLP in 2022 (page 4)
 - > CEO's Strategic Review (page 16)
 - > Business Performance and Outlook – Hong Kong (page 40)
 - > Business Performance and Outlook – Australia (page 53)
- > Business Performance and Outlook – India (page 59)
 - > Stakeholders – Our People (page 82)
 - > Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data (page 310)

B3. Development and Training

- > A Snapshot of CLP in 2022 (page 4)
 - > Stakeholders – Our People (page 82)
- > Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data (page 310)

B5. Supply Chain Management (KPI B5.1)

- > CEO's Strategic Review (page 16)
 - > Business Performance and Outlook – Hong Kong (page 40)
- > Stakeholders – Customers (page 77)
 - > Stakeholders – Partners (page 88)

B6. Product Responsibility (KPI B6.3)

- > A Snapshot of CLP in 2022 (page 4)
 - > Business Performance and Outlook – Hong Kong (page 40)
 - > Business Performance and Outlook – Mainland China (page 47)
- > Business Performance and Outlook – Australia (page 53)
 - > Stakeholders – Capital Providers (page 69)
 - > Stakeholders – Customers (page 77)
 - > Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data (page 310)

- > In respect of the specific aspects of the ESG Reporting Guide set out below, CLP has not had any non-compliance with the relevant laws and regulations that would have a significant impact on CLP:
 - A1 **Emissions:** air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste;
 - B1 **Employment:** compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare;
 - B2 **Health and Safety:** providing a safe working environment and protecting employees from occupational hazards;
 - B4 **Labour Standards:** preventing child and forced labour;
 - B6 **Product Responsibility:** health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress; and
 - B7 **Anti-corruption:** bribery, extortion, fraud and money laundering,
- save for specific aspects B2 and B6 regarding EnergyAustralia, where there have been non-compliance cases regarding (i) breaches of occupational health and safety obligations in connection with a fatal incident in 2018 (see Business Performance and Outlook chapter page 38), (ii) self-reported life support breaches (see Stakeholders chapter page 66) and (iii) failure to obtain consent from retail customers (see Stakeholders chapter page 66).
- > Those less material non-compliance cases are covered in the Business Performance and Outlook chapter. The Stakeholders chapter also covered a cyber incident that resulted in unauthorised access to the online accounts of about 300 EnergyAustralia customers.
 - > PwC have conducted limited assurance on selected ESG metrics as set out in the Five-year Summary, in accordance with International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements other than Audits or Reviews of Historical Financial Information, and, in respect of greenhouse gas emissions, International Standard on Assurance Engagements 3410, Assurance Engagements on Greenhouse Gas Statements, issued by the International Auditing and Assurance Standards Board (IAASB). The [Sustainability Report](#) also includes an independent assurance report from PwC. 🌱

Our Board

The Board's Roles and Responsibilities

Our Board plays a critical role in ensuring that our corporate governance best serves the Company's interest in building a sustainable business. Under the leadership of our Chairman, the Board cultivates good governance as the cornerstone of our corporate culture.



Dual Role of Governance Oversight & Strategic Lead in Anticipating & Shaping the Future

Board's Focus

The Board recognises that effective oversight and leadership over the affairs of the Company are critical to promoting the success of the Company. The following summarises the Board's focus during the reported period (full-year 2022 and for 2023 up to the date of this Report) (the Period):

Strategy	
Group strategy and implementation	During the course of the Period, the Board was briefed on the strategic investment and business update for the Group's key business units, including the transaction for Apraava Energy. The Board provided insights and recommendations to management on key issues such as strategic priorities, challenges and risks.
Transformation plan update	Throughout the Period, the Board discussed and considered the implementation of the different phases of the transformation plan. The Board analysed the proposed ERP (enterprise resource planning) project and provided guidance on certain key issues to management. The Board had a deep dive session in understanding the need and the business case for the investment in ERP.
Governance and Risk	
EnergyAustralia challenges	The Board requested timely updates on the challenges and the latest financial performance for EnergyAustralia. Recognising the situation at the relevant time, the Board considered and approved the profit warning announcement in connection with the financial performance of EnergyAustralia. The Board had a deep dive session into how EnergyAustralia should be managing the challenges in an uncertain and volatile market.
Hong Kong Cable Bridge incident	The Board was briefed contemporaneously on the CLP Cable Bridge fire incident in Yuen Long and studied the full report of the investigation. The Board approved the full report and adopted the recommended follow up measures including a series of risk reduction measures for other cable bridges.
Audit & Risk Committee activities	The Board received the important overview from the Chairman of the Audit & Risk Committee on the Committee's review of financial statements and oversight of risk management and internal control systems ahead of management's presentation of the full-year and half-year financial statements.
Leadership and People	
Board and Board Committees refresh	As part of the Board refresh, the Board oversaw a number of changes to the composition and leadership of the Board and Board Committees, see "2022 At a Glance" on page 111.
Organisation's capability and structure	As part of the transformation plan, the Board considered and provided guidance on the structuring of the new operating model for the Group. The Board was also briefed on the implementation of the new organisational and leadership structure.
Chairman's session	The Chairman held an annual meeting with the Independent Non-executive Directors only, which provided an open agenda for the Independent Non-executive Directors to raise matters of interest to the Group with the Chairman.

Performance Monitoring and Planning	
Results and dividends	<p>The Board approved the following: 2021 and 2022 Annual Reports; 2022 Interim Report; the quarterly statements; and the dividends for the financial years ended 31 December 2021 and 2022; as well as the Business Plan and Budget.</p> <p>In approving the Annual Reports and Interim Report, the Board also approved the financial statements and ensured that the statements give a true and fair view of the financial position of the Group.</p>
Timely updates to the market	<p>The Board recognised the challenging situation for EnergyAustralia and the Board approved the timely updates to the market. In advance of the interim results reporting, the Board considered and approved the issuance of the Quarterly Statement as an inside information announcement and a profit warning announcement.</p>
Regular updates to the Board	<p>The Board considered the matters covered in the CEO's Report where the CEO highlighted key issues on safety and business updates for each of the Group's markets. This enabled the Board to keep abreast of the material issues and developments of the CLP Group.</p> <p>In between Board meetings, the Directors received the CLP Group Management Report that provided updates on the Group's key financial information as well as reports on health, safety and environment.</p>
Stakeholder Engagement	
Regulatory landscape	<p>The Board looked into the regulatory landscape under the new Administration in Hong Kong and had a good exchange amongst the Board members and management in understanding the implications for our business.</p>
Hong Kong business	<p>The Board has always recognised the importance of the stakeholders of the Hong Kong business and the Board and management have always put this as a fundamental consideration in key decisions for the Scheme of Control business.</p>
Outside of the Boardroom	
Matters considered by the Board via circulation of Board Papers	<p>2022 has been a busy year for the Board outside the scheduled Board meetings and the Board received timely updates on, and considered, the following matters:</p> <ul style="list-style-type: none"> > The Group's profit warning; > AGM arrangements in light of the tightened social distancing requirements; > Board succession; > Internal Board Review report; > Hong Kong Cable Bridge incident report; > Hong Kong tariff updates; > CLP China business development investments and disposal; > EnergyAustralia business update; and > Apraava Energy's business development investment and transactions.

Attendance at our Board meetings and the interaction between Senior Management and our Directors

The partnership between our Board and Senior Management is highly transparent and collaborative. In addition to our CEO who is an Executive Director, our Board meetings are typically attended by our Senior Management team.

To complement the Board’s responsibilities and focus, the Board’s work is well supported by the Board Committees; see “Board Committees” on this page.

Board and Board Committees meetings held during the Period

2022												2023	
Board													
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
	B			✓ B			B		B		I B		B
A	A F H S	F	A		A F P	H	A F		A H S	F H S	N P	A	A F H S

Board Committees

Board

- B** Board
- I** Chairman and Independent Non-executive Directors only
- ✓** AGM

Board Committees

- A** Audit & Risk Committee
- F** Finance & General Committee
- H** Human Resources & Remuneration Committee
- N** Nomination Committee
- P** Provident & Retirement Fund Committee
- S** Sustainability Committee

Board Committees

The Board delegates some of its responsibilities, with appropriate oversight, to the respective Board Committees and the delegated Listing Rules Code Provisions corporate governance duties* are highlighted below. [Terms of reference and membership of all Board Committees](#) are disclosed in full on the websites of CLP and the Hong Kong Stock Exchange.

Audit & Risk Committee (see full report on page 156)	> Corporate governance, compliance and code of conduct*
Sustainability Committee (see full report on page 164)	> Governance of ESG issues*
Nomination Committee (see full report on page 170)	> Governance of Board-level matters and professional development of Directors*
Human Resources & Remuneration Committee (see full report on page 175)	> Professional development of management*
Finance & General Committee	> See page 123 for responsibilities and work done during the Period
Provident & Retirement Fund Committee	> See page 123 for responsibilities and work done during the Period

Membership of Finance & General Committee

Mr Andrew Brandler (Chairman), Sir Rod Eddington, Mr Nicholas C. Allen, Ms May Siew Boi Tan, Ms Christina Gaw, Mr Chunyuan Gu, Mrs Betty Yuen, and Mr Richard Lancaster; the former Chair, Mr William Mocatta retired on 31 December 2022.

Responsibilities and Work Done

This Committee reviews the financial operations of the Company which include Group-wide financial, accounting, treasury and risk management policies, major financing transactions, corporate plans and budgets and business performance. The Committee also reviews major acquisitions or investments and their funding requirements. In addition, the Committee reviews the implementation of the Company's strategy approved by the Board and the performance and business environment of the Company; and the Committee will also identify any matters that should be referred to the Board for review and further consideration.

The work performed by the Committee during the Period included the review and consideration of the following matters:

- > the Company's interim and annual results and the dividends payable to shareholders for the financial years ended 31 December 2021 and 2022;
- > the CLP Group Business Plan and Budget 2023-2027 including the dividends profile for those years;
- > the capital expenditure and 2023 tariff strategy for the Hong Kong business;
- > potential investment in specific projects in Hong Kong, Mainland China, Australia and India;
- > the sell down of 10% interest in Apraava Energy;
- > the exit of CLP's interest in the Vinh Tan 3 Coal Project;
- > the latest energy market developments and outlook for the business on EnergyAustralia;
- > the CLP Group liquidity position, funding requirements, financing initiatives and cost of capital study; and
- > CLP's foreign exchange translation risk and counterparty exposures.

The nature of the work of the Committee includes the consideration of transactional items which may arise from time to time and require the review and approval by the Committee via circulation of papers on a time sensitive basis.

Membership of Provident & Retirement Fund Committee

Mr William Mocatta (Chairman) (until his retirement on 31 December 2022), Mr Nicolas Tissot and a Trustee.

Responsibilities and Work Done

This Committee advises the Trustee on investment policy and objectives for the Group's retirement funds, namely the CLP Group Provident Fund Scheme and CLP Group Top-Up Scheme.

During the Period, the Committee monitored the performance of the overall portfolio, the investment managers and operational efficiency. Education and communication are arranged for schemes members for better retirement planning.

Changes to Board Committees' Composition

With the appointment of Mr Bernard Chan as an Independent Non-executive Director and the retirement of Mr William Mocatta as the Vice Chairman, there were a number of changes in the Board Committees composition, details of which are set out below:

- > Mr Bernard Chan was appointed as a Member of the Sustainability Committee with effect from 18 October 2022;
- > Mr William Mocatta retired as Chairman and Member of the Finance & General Committee, Chairman of the Provident & Retirement Fund Committee and a Member of the Human Resources & Remuneration Committee with effect from 31 December 2022; and
- > Mr Andrew Brandler was appointed to succeed Mr Mocatta as the Chairman of the Finance & General Committee effective 1 January 2023.

With the Board's approval, the Board Committees will be refreshed (with effect from 28 February 2023) in the following manner:

- > Mr Chunyuan Gu will become a Member of the Human Resources & Remuneration Committee; and
- > Ms May Tan will succeed as the Chair of the Audit & Risk Committee and outgoing Chair, Mr Nicholas C. Allen will remain as a Member of the Audit & Risk Committee.

Directors' Attendance and Development

Our Directors attend to the affairs of the Group through their participation at the AGM, Board and Board Committee meetings, and perusal of Board papers.

In 2022, six Board meetings were held and the overall attendance rate of Directors at Board meetings was 93.33% (2021: 94.67%). Details of Directors' attendance at the AGM, Board and Board Committee meetings (**attended / held**) and development programme in the year 2022 are set out in the following table.

	Board ¹	Audit & Risk Committee ²	Finance & General Committee	Human Resources & Remuneration Committee	Nomination Committee	Sustainability Committee	Provident & Retirement Fund Committee	AGM ^{2,3}	Directors Development Programme
Non-executive Directors									
The Hon Sir Michael Kadoorie	5/6 ^(C)				1/1			✓	B
Mr William Mocatta ⁴	5/5 ^(V)		6/6 ^(C)	4/4			2/2 ^(C)	✓	A, B
Mr J.A.H. Leigh	5/5							✓	B
Mr Andrew Brandler	4/5		6/6			2/3		✓	B
Mr Philip Kadoorie	4/5					1/3		✓	B
Independent Non-executive Directors									
Sir Rod Eddington	6/6		6/6					✓	B
Mr Nicholas C. Allen	6/6	6/6 ^(C)	5/6	3/4 ^(C)	1/1 ^(C)	3/3		✓	A, B
Mrs Fanny Law	6/6	6/6		4/4		3/3		✓	A, B
Mrs Zia Mody	4/6			3/4				✓	B
Ms May Siew Boi Tan	6/6	6/6	5/6	4/4	1/1	3/3		✓	A, B
Ms Christina Gaw	6/6		6/6			3/3		✓	B
Mr Chunyuan Gu	6/6	6/6	6/6					✓	A, B
Mr Bernard Chan ⁵	2/2					1/1		-	B
Executive Director									
Mr Richard Lancaster	5/5		6/6			3/3 ^(C)		✓	A, B

Notes:

- 1 Included an annual meeting where the Chairman met with the Independent Non-executive Directors only.
- 2 Representatives of the independent auditor participated in every Audit & Risk Committee meeting and the AGM.
- 3 Independent Non-executive Directors were available to take shareholders' questions specifically addressed to them during the AGM (of which there were none).
- 4 Mr William Mocatta retired from the Board on 31 December 2022.
- 5 Mr Bernard Chan was appointed as an Independent Non-executive Director and a Member of the Sustainability Committee with effect from 18 October 2022.
- 6 Chairmen of the Board and Board Committees and the Vice Chairman of the Board are indicated by (C) and (VC) respectively.

* Directors Development Programme

All Directors participate, at the Company's expense, in continuous professional development and training, with appropriate emphasis to develop and refresh their knowledge on industry-related updates. Our Directors Development Programme includes:

- A** – meeting with local management and stakeholders, and visiting CLP's facilities and special projects with CLP's involvement; and
- B** – attending expert briefings / seminars / conferences relevant to the business or director's duties. In addition, they have access to Chatham House (a leading independent policy institute based in London) publications and the opportunity to attend Chatham House events on topics relevant to our business.

Onboarding for new Director

The Company has in place a set of Onboarding Guidelines with the key objective of assisting new Director in understanding of CLP's business, governance and Board and Committee dynamics. This sets out a structured onboarding process that would serve as a roadmap for new Director to gain a better understanding of CLP and our business environment.

Our Onboarding Programme for the newly appointed Director is individually designed with the specific Director in mind having regard to the Director's unique background, skills, experience and perspective. Components of our Onboarding Programme include:

- > an introduction session;
- > face-to-face and one-on-one meetings with the Chairman of the Board, Chairman of the Board Committees and the Senior Management who work closely with the Board and Board Committees;
- > access to information that provides a broad overview of the CLP Group;
- > invitation to attend Board Committee meetings to assist with the understanding of the work carried out by various Board Committees; and
- > visits to the major facilities of CLP and / or special projects with CLP's involvement.

As part of the onboarding sessions for the newly-appointed Independent Non-executive Director, Mr Bernard Chan met with some of the Senior Management members in November 2022.

Directors' Time and Directorship Commitments

Our Directors, Non-executive Directors in particular, have demonstrated a strong commitment to the CLP Board affairs and they are well aware that they are expected to have a sufficient time commitment to the Board. Directors have given certain confirmations and made disclosures about their other commitments.

> Sufficient time and attention

- > Directors have confirmed that they have given sufficient time and attention to the affairs of the Company for the year.


> Other offices and commitments

- > Directors disclose to the Company twice a year the number, identity and nature of offices held in Hong Kong or overseas listed public companies and organisations and other significant commitments, together with an indication of the time involved.

> Other directorships

- > None of our Directors, individually, held directorships in more than seven public companies (including the Company) as at 31 December 2022.

Our Executive Director does not hold directorship in other public companies; however, he is encouraged to participate in professional, public and community organisations.

In respect of those Directors who stand for election or re-election at the 2023 AGM, all their directorships and board committee membership held in listed public companies in the past three years are set out in the Notice of AGM. [Other details of the Directors' biographies](#) are set out under Board of Directors on page 100 of this Annual Report and on CLP website. 

2022 External Board Review Exercise


We have conducted the External Board Review exercise and this was led by a firm of consultants, Korn Ferry. Korn Ferry also did the previous External Board Review and with their strong understanding of the Board dynamics and the strategic issues faced by the Group and the leadership team, this provided a solid foundation for this year's exercise.

Consistent with the approach taken in the previous review, the focus of the subject review exercise is on today and the future for the Board and the Group with specific objectives on enhancing:

- > the alignment on strategic issues, priorities and the path forward; and
- > how the Board adds value in partnership with the management team.

A key part of the review exercise was the one-on-one interview sessions that Korn Ferry conducted with the Board of Directors as well as selected members of the Senior Management who have regular interaction with the Board and Board Committees.

In preparation for, and in advance of, this review exercise and the interview sessions, Board Members were provided with a detailed report of the findings of the internal board survey that was conducted in 2021. The objective of this was to remind and refresh Board Members' understanding of the issues pertinent to the Board and the Group.

The report and the recommendations for this External Board Review exercise have been compiled. Once finalised, a report will be put to the Chairman and the Board for consideration and it is expected that the report will include specific and practical recommendations for the Board to consider for adoption. As with the previous practice, once finalised, a [summary](#) report will be made available on our website. 

Nomination and Appointment of Directors

Following the Nomination Committee's consideration and recommendations, the Board appointed two new Directors this year, Mrs Betty Yuen as a Non-executive Director and Mr Bernard Chan as an Independent Non-executive Director, both were announced in October 2022.

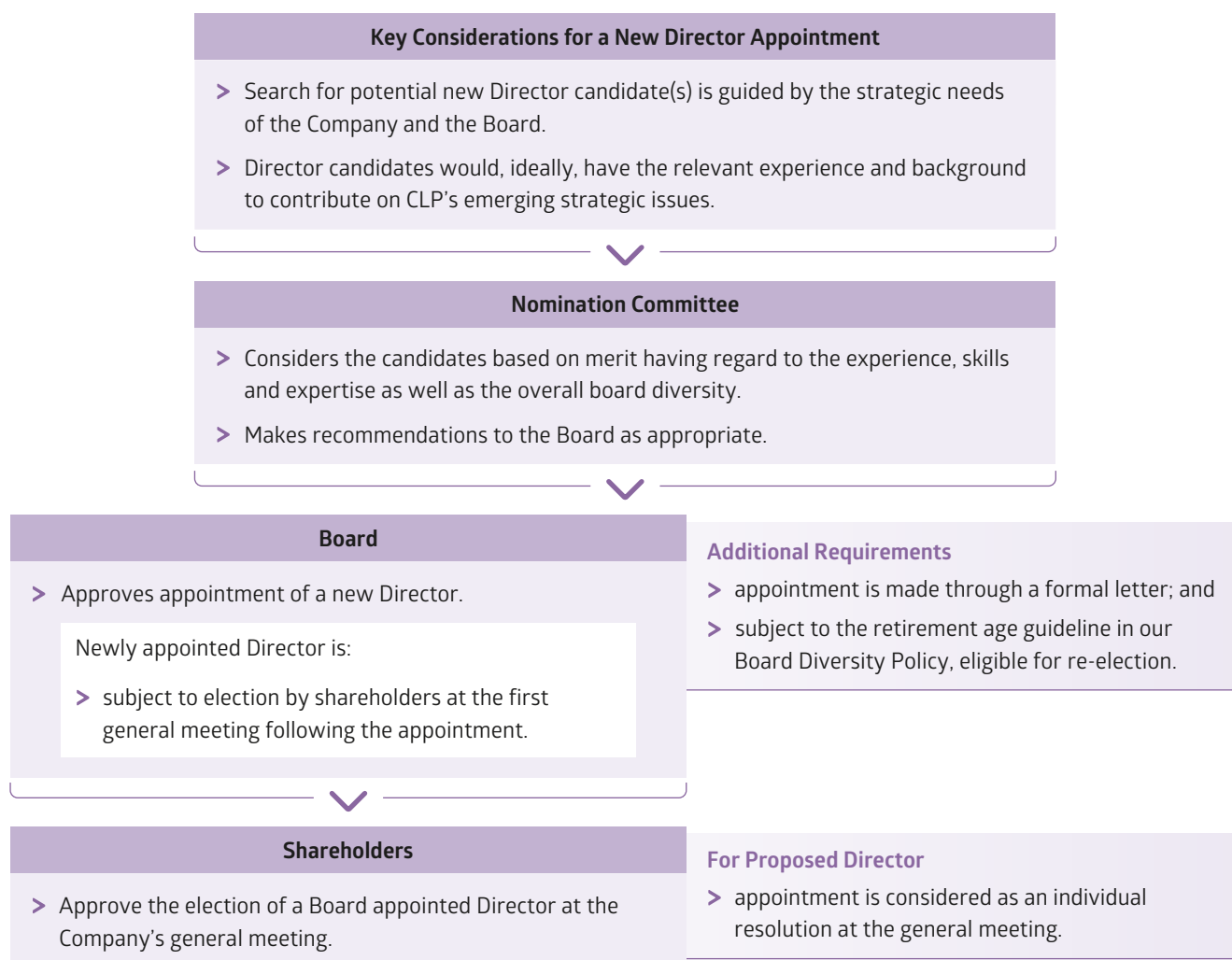
Non-executive Director Appointment

With the retirement of Mr William Mocatta as Vice Chairman and CLP Holdings Non-executive Director, the Board considered the succession for Mr Mocatta as a Non-executive Director with a vast knowledge and deep understanding of the CLP Group's business. Mrs Betty Yuen, a former senior executive of the CLP Group with extensive experience of the power industry in Hong Kong and Mainland China, was considered by the Board as an ideal candidate to join the Board as a Non-executive Director.

Independent Non-executive Director Appointment

For the search process in the lead up to the appointment of Mr Bernard Chan as an Independent Non-executive Director (INED), CLP followed a formal and transparent procedure and is guided by CLP's Nomination Policy, which is disclosed in the Nomination Committee Report on page 170.

Process for appointing a new Director



* For existing Directors, they are subject to rotation at least once every three years and one-third of Board members are required to retire at the AGM and are eligible for re-election.

Why Board Diversity is Important to CLP

We recognise that Board diversity is an essential element contributing to the sustainable development of CLP.

CLP Board Diversity Policy adopted by the Board in 2013 (available on website)

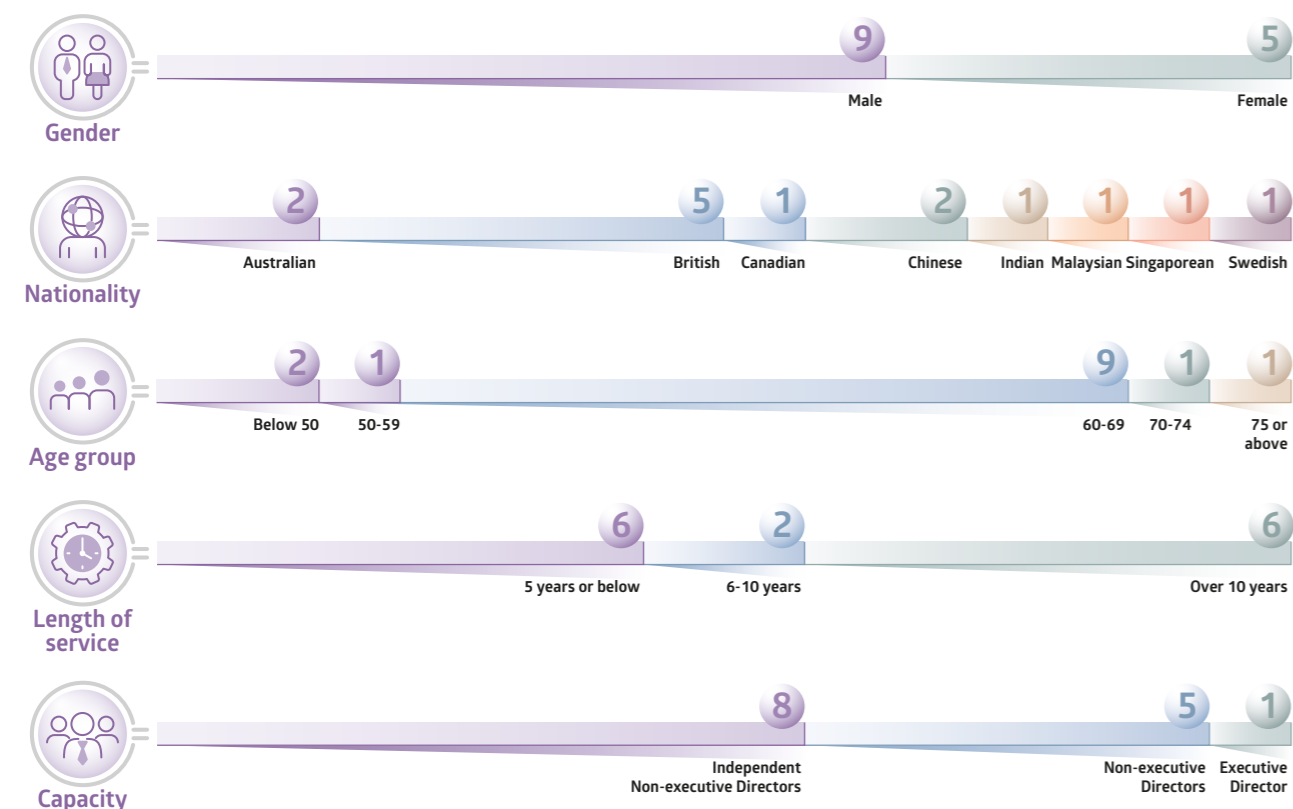
The Policy incorporates:	Recent changes (2022):
<ul style="list-style-type: none"> > Code Provisions of the Corporate Governance Code > Retirement Age Guideline (age 72) for Non-executive Directors (other than the Chair) > CLP Group Diversity and Inclusion Policy for Senior Management and Staff 	<ul style="list-style-type: none"> > 30% target for female Director representation on the CLP Holdings Board – To be reviewed annually by the Nomination Committee > Independence mechanism (for directors to express their views and feedback) will be reviewed by the Nomination Committee annually

Aspects of Diversity cover:
independence / gender / age / cultural and education background / professional experience / business perspectives / skills / knowledge / ethnicity / length of service

Our Board Diversity Policy also recognises that board diversity can be achieved without increasing the size of the Board and that a reduction in board size due to retirements without replacement can also be a way to further diversity. Since January 2022, our Board size slightly increased from 13 to 14 due to the appointment of one additional Independent Non-executive Director.

Board Composition & Diversity*

Key highlights: Female Representation of 35.7% / INED Representation of 57%



* As at date of this Annual Report

Board Expertise

To ensure the Board continues to possess a balance of skills appropriate for the requirements of the business of the Group, an analysis of the skill set mix was considered by the Nomination Committee.

The table below highlights the breakdown of the skill set mix of our Directors and demonstrates the broad and diverse mix of experience and background relevant to CLP that the Directors bring to the Board and its Committees.

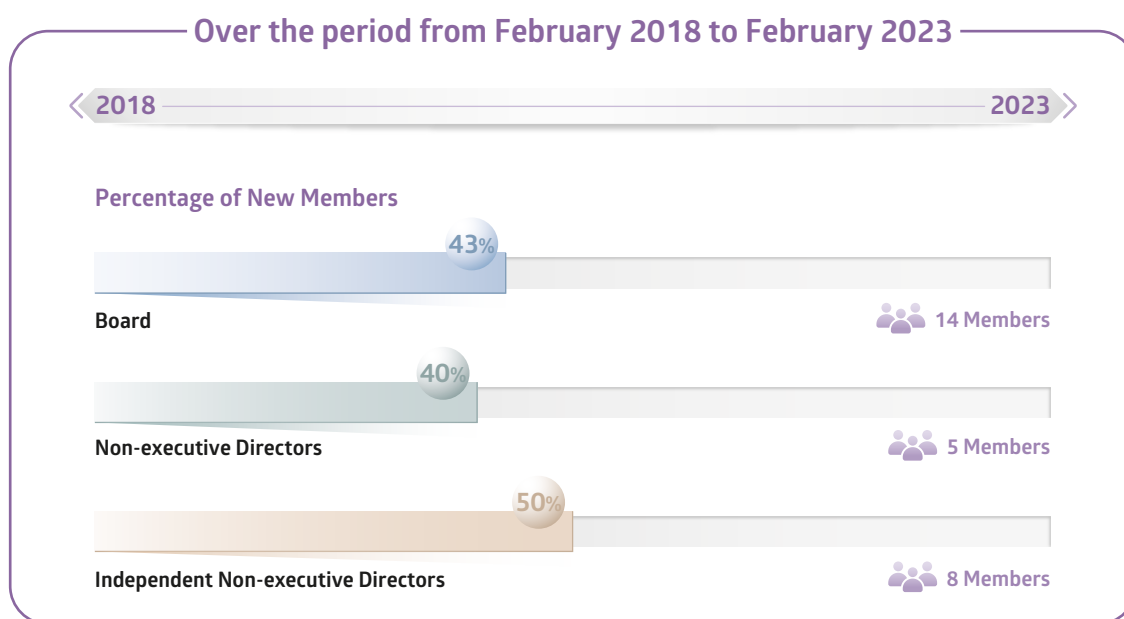
Expertise	Relevance to CLP	No. of Directors (Full Board of 14)
Board / board committees leadership	Board and governance leadership experience are regarded as a strategic asset to the Board and Board Committees	8
CLP market experience (Hong Kong / Mainland China (including Greater Bay Area) / Australia / India / SEA & Taiwan)	Facilitates the review of CLP's business and financial operations and investments in the respective region	14
Company executive	Provides insights into executive leadership and the management of CLP's business and operations	9
Global market experience	Provides insights into the global economic trends and opportunities that CLP can explore	14
Other industries	Brings in other expertise applicable across different industries	13
Other listed board roles	Brings in good practices as a board and / or board committee member of listed companies	12
Public administration	Brings in experience in the areas of regulatory and stakeholder engagement	2
Related industry experience (Infrastructure / Power / Property / Retail)	Facilitates the review of CLP's business operations and investment opportunities in the related industries	14
Risk & compliance	Risk and compliance as key governance responsibilities of the Board	10
Technology	Provides insights into the technological developments and the governance of cyber risks	4
Professional		9
> Accounting	Brings in oversight, advisory and operational experience in the respective field of profession	4
> Engineering		3
> Legal		2

Note: Multiple professional background and experience may apply to a Director.

How the Board has been refreshed

One initiative to enhance the Board's diversity is to gradually refresh the composition of the Board.

As part of our continuing efforts to gradually refresh our Board, the Board saw two new appointments and the retirement of our former Vice Chairman since January 2022. We believe that this is an important balancing act of bringing experienced Directors with fresh ideas and experience aligned with CLP's strategic priorities and ensuring that the Board remains well represented by Directors with a good degree of CLP corporate knowledge, background and history. The table below shows how the Board has been refreshed over the past five years.



Disclosure of Conflict of Interest and Independence of Directors

Conflicts

Directors are requested to declare their and their connected entities' direct or indirect interests, if any, in proposals or transactions to be considered by the Board at Board meetings and withdraw from the meetings as appropriate. In 2022, none of the Directors were required to withdraw from meeting in these circumstances.

The Company follows guidelines at each financial reporting period to obtain confirmations from Directors in respect of any transactions of the Company or its subsidiaries which are related to Directors or their connected entities.

In addition, identified significant related party transactions are disclosed in Note 32 to the Financial Statements.

Independence

As required under the Listing Rules, the Company received written confirmations from all of the Independent Non-executive Directors regarding the independence of each of them and their immediate family members.

Among the Independent Non-executive Directors of the Company, none of them has held cross-directorship with other Directors.

Our view on independence

The Company maintains the view that a Director's independence is a question of fact and this is formally recognised in the Board Diversity Policy. The Board is committed to assessing this on an ongoing basis with regard to all relevant factors concerned, including the ability to continually provide constructive challenge for management and other Directors; to express one's own views independent of management or other fellow Directors; and the gravitas inside and outside the boardroom. These attributes and desired behaviour have been demonstrated by our Independent Non-executive Directors as circumstances require.

Mechanisms for ensuring independent views and input


The Company has established channels through formal and informal means whereby Independent Non-executive Directors can express their views in an open and candid manner, and in a confidential manner, should circumstances require.

Communication channels for Independent Non-executive Directors:

- dedicated meeting session between Independent Non-executive Directors and the Chairman only (before Board meeting);
- board evaluation conducted by external consultant once every 3 years, and internal survey conducted in the intervening period;
- Independent Non-executive Director as Chair of various Board Committees – Committee Chair can update Board Chair as necessary; and
- other informal meetings outside the boardroom.

The Audit & Risk Committee has been asked to provide feedback and the Nomination Committee has been delegated with the authority to review the implementation and the effectiveness of the independence mechanism on an annual basis.

Taking into account all of the circumstances described in this section, the Company considers all of the Independent Non-executive Directors to be independent.

[Details of all Directors and their biographies](#) including, if any, relationship between the members are disclosed on pages 100 to 107 and on our website. 

Directors' Shareholding Interests

Directors' interests in CLP's securities as at 31 December 2022 are disclosed in the Directors' Report on page 194. All Directors have confirmed, following specific enquiry by the Company, that throughout the year ended 31 December 2022 they have complied with the required standard set out in the Model Code and our own Code for Securities Transactions. CLP's own Code for Securities Transactions is largely based on the Model Code set out in Appendix 10 of the Listing Rules and is on terms no less exacting than those in the Model Code.

Management and Staff

CLP recognises the importance of diversity not just at the Board level but throughout the CLP Group. Our respect for people and diversity are embedded in CLP's Value Framework and our Board Diversity Policy has also incorporated the CLP Group Diversity and Inclusion Policy for Senior Management and Staff.

One of the key tasks of CLP's management and staff is the successful implementation of strategy and direction as determined by the Board under the leadership of our Chairman. This includes promoting and "living" the good corporate culture set by our Board over the years. In doing so, they must apply business principles and ethics which are consistent with those expected by the Board, CLP's shareholders and other stakeholders, and these have been documented in our Code of Conduct.

A key fundamental feature of CLP's corporate governance is a culture of "doing the right thing", this "tone" is set at the top of the organisation at the Board level and is embedded throughout our Value Framework, Code of Conduct, CLP Code, and the Whistleblowing Policy.

Subsidiary Board Governance

The subsidiary board governance plays an important part to ensure that at the management level, the culture set at the Holdings Board level is observed and followed and that the expected standard of business principles and ethics will be consistently applied at the subsidiary board and management level.

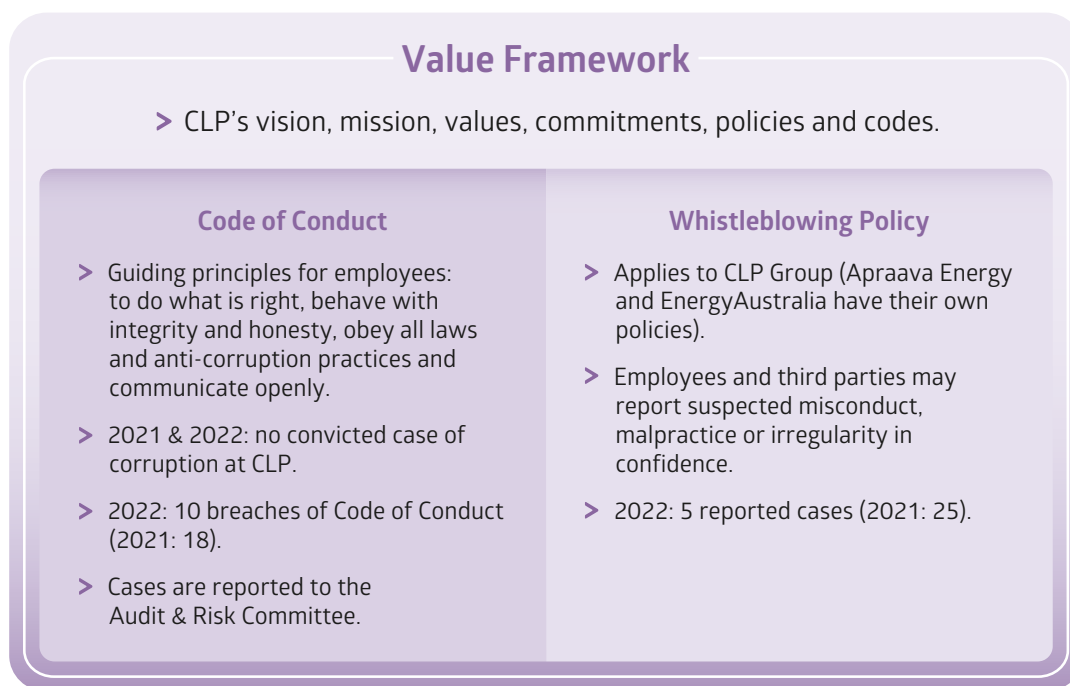
In 2022, the leadership at the subsidiary board level was refreshed with more of our mid-management leaders taking up subsidiary board positions. As subsidiary board directors, they will have legal responsibilities that are aligned with their accountability in their business or functional capacity.

The new appointees are of a certain level of seniority who are familiar with the CLP culture and have a solid understanding of their obligations and responsibilities as a corporate director and an organisational leader. These subsidiary level directors are expected to lead by example and help guide and oversee our people to ensure that the right culture is not just observed but are applied in how we conduct our business.

Role of Management and Staff in Promoting Good Corporate Governance Practices

Our CEO has the overall responsibility for carrying out the strategy and direction set by the Board and for managing the Group’s business. The delegation of authority by the Board to the Committees, Senior Management and management are prescribed in the form of a “Company Management Authority Manual”.

Management and staff adhere to various Group policies that reflect the values and corporate culture of CLP.



Ongoing Training

In addition to setting the right tone at the top, we recognise the importance of communicating effectively with our staff, and the need to cascade down the key messages and expectations of what are expected from them to ensure that everyone will work together to contribute to a good corporate governance culture.

To demonstrate CLP’s commitment to high ethical and integrity standards and to foster the culture of making conscious decisions in doing the right thing as a company, we conducted a Group-wide Business Practice Review throughout 2021 and 2022. This is a mandatory training programme for all staff, through live discussions in the training workshops, not only to refresh their understanding of the key principles in Code of Conduct and other major Group policies, but also to facilitate better application of these principles in their daily work. More than 470 sessions were held which covered approximately 8,400 employees and 1,000 contractors.

In an increasingly challenging and uncertain environment, where organisations could potentially be more vulnerable to the heightened risk of fraud, we have rolled out a Fraud Risk Awareness e-training to all CLP staff including all new joiners as part of the mandatory induction training programme. The e-training focused on the importance of identifying different forms of potential fraud, and on how CLP staff can prevent, detect, respond to, and report cases of fraud.

We have also launched e-learning programmes on CLP Corporate Governance Framework and Internal Controls to reiterate the basic governance framework, principles and standards required for an effective system of management controls.

All the above-mentioned e-training are available on the CLP intranet for staff to understand, learn and refresh anytime as they see appropriate.

Securities Dealing

Our Management and Staff are subject to CLP Securities Dealing Restrictions.

- > We appreciate that some of our staff may in their day-to-day work have access to potential inside information.
- > Our Senior Management and selected members of staff, “Specified Individuals”, are subject to securities dealing restrictions in our CLP Code for Securities Transactions.
- > Securities Transactions: All members of the Senior Management have confirmed, following specific enquiry by the Company, that throughout the year ended 31 December 2022 they have complied with the required standard set out in the Model Code and CLP Code for Securities Transactions.
- > Shareholding in CLP shares: Save for the interest disclosed by the CEO in the Directors’ Report on page 212, the other members of the Senior Management did not have any interests in CLP Holdings’ securities as at 31 December 2022.

Senior Management Training and Development

We have a formal procedure in place for reporting the training and continuous professional development of Senior Management. Members of Senior Management have access to a variety of training activities. These include access to online learning and information resources, formal executive development programmes at leading business schools and executive briefings on matters of topical interest provided through our strategic partnerships with organisations such as Chatham House, IMD and The Economist. We also make selective use of independent executive assessment and coaching processes to assist with identifying individual development needs and provide input to our succession planning decisions.

Participation in Training and Continuous Professional Development of Senior Management in 2022				
Senior Management	Attending formal executive development / training programme	Attending expert briefings / seminars / workshops / conferences relevant to the business or their duties	Participating as speakers at events	Access to web-based learning resources
Mr Richard Lancaster	●	●	●	●
Mr Nicolas Tissot	●	●	●	●
Mr Derek Parkin ¹	●	●	●	●
Mrs Betty Yuen ²	●	●	●	●
Mr T.K. Chiang	●	●	●	●
Mr Law Ka Chun Joseph ³	●	●	●	●
Mr Mark Collette	●	●	●	●
Mr Rajiv Mishra	●	●	●	●
Mr David Simmonds ⁴	●	●	●	●
Ms Quince Chong	●	●	●	●
Ms Eileen Burnett-Kant	●	●	●	●

Notes:

- 1 Mr Derek Parkin was appointed as Chief Operating Officer and has become a member of Senior Management with effect from 1 September 2022.
- 2 Mrs Betty Yuen was appointed a Non-executive Director of the Company with effect from 1 January 2023.
- 3 Mr Law Ka Chun Joseph was appointed as Managing Director – China with effect from 1 April 2022 following Mr Chan Siu Hung’s retirement.
- 4 During 2022, Mr David Simmonds, the Company Secretary, served as the Vice-President, the Chairman of the Membership Committee and the Company Secretaries Panel, he also led the Competition Law Interest Group and was a member of the Investment Strategy Task Force of the Hong Kong Chartered Governance Institute. He was also a frequent speaker at seminars and has fulfilled the relevant professional training requirements under the Listing Rules.

Organisation's Gender Diversity

The importance of gender diversity at the CLP Holdings Board level is extended throughout the organisation. We believe a diverse workforce and an inclusive culture supports high performance and CLP's ability to operate effectively in the many communities in which it operates. CLP has set targets to encourage more women into the workforce, and policies to support employees to balance work and home-life commitments. Considering the nature of our business and the markets we operate in, addressing gender diversity is a Group-wide priority to ensure a sustainable workforce and to deliver a wider, positive social and economic contribution. Long-term aspirational Group-wide gender diversity targets have been set, reflecting UN Sustainable Development Goals, these are:


- > **Women in Leadership target:** to achieve gender balance in leadership positions by 2030 against a 2016 baseline of 22%; and
- > **Women in Engineering target:** for 30% of engineers to be female by 2030 compared to a 2016 baseline of 9%.

As indicated in the table on page 87, the gender diversity across the Group's management for 2022 has been largely consistent with that of 2021. For the general employees subset, this has seen a modest percentage increase of 1% and considering the large number of employees in this subset, this represented a notable increase in absolute terms and progress in the female representation in CLP's general workforce.

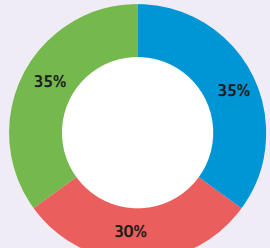
Shareholders Engagement

Shareholding as at 31 December 2022				
Size of Registered Shareholding	No. of Shareholders	% of Shareholders	No. of Shares	% of Issued Share Capital
500 or below	2,488	13.55	766,109	0.03
501 – 1,000	3,431	18.68	2,755,325	0.11
1,001 – 10,000	8,422	45.86	35,599,089	1.41
10,001 – 100,000	3,568	19.43	103,452,406	4.09
100,001 – 500,000	378	2.06	75,952,849	3.01
Above 500,000	78 ¹	0.42	2,307,924,792	91.35
Total	18,365 ²	100.00	2,526,450,570 ³	100.00

Notes:

- 1 Information on the [10 largest registered shareholders](#) in the Company is set out on our website. 
- 2 Actual number of investors is much greater as many shares are held through intermediaries including Central Clearing and Settlement System of Hong Kong (CCASS).
- 3 55.45% of all our issued shares were held through CCASS.
- 4 The Listing Rules required 25% public float was maintained throughout the year and up to 27 February 2023.

Shareholding by Category⁴




- Interests associated with the Kadoorie Family – our single largest shareholder group
- Institutional investors – mainly based in North America, UK, Europe and Asia
- Retail investors – mostly based in Hong Kong


The scale of our shareholders' investment is reflected in the market capitalisation of CLP Holdings which stood at HK\$144 billion as at 31 December 2022.

Shareholders' Rights

Shareholders are one of our key stakeholders and from a corporate governance perspective, the rights of our shareholders are well recognised and these include:

- > the right to receive declared dividends and to vote and attend general meetings; and
- > the [right to convene general meetings and to put forward proposals](#) – details of which can be found in our explanatory notes to the Notice of AGM and on our website or on request. 

CLP's Dividends Policy

We create long-term value to our shareholders through dividend payments. CLP's Dividends Policy, adopted by the Board in February 2019, aims to provide reliable and consistent ordinary dividends with steady growth when supported by our earnings whilst ensuring that a solid financial position can be maintained to fund our business growth. In line with our established practice, our ordinary dividends are paid four times a year in each of the quarters. [CLP's Dividends Policy](#) is available on the CLP website. 

The Company's performance- and dividend-related dates for 2023 are set out in Information for Our Investors on page 324.


2022 Hybrid AGM

Due to the social distancing laws and regulations at the time, the 2022 AGM was held in a hybrid format on 6 May 2022 with online attendance and physical attendance at the Principal Meeting Place at the Company's Head Office, 8 Laguna Verde Avenue, Hung Hom, Kowloon, Hong Kong. Attendance at the Principal Meeting Place was limited to Directors and management working on the AGM arrangements or as required to form a quorum for the AGM and all shareholders were invited to join the online AGM.

Our then Vice Chairman, CEO and Mr Michael Ling, the then Deputy Company Secretary played host, and Mr Nicholas C. Allen (an Independent Non-executive Director), our CFO and the representatives of the independent auditor attended the physical meeting. Our Chairman, The Hon Sir Michael Kadoorie, and all other Directors attended the meeting online.

The opportunity for shareholders to attend the AGM online and to send their questions in advance of the AGM and in real-time through the online platform allowed shareholders to express their views amid the special circumstances.



Highlights of the 2022 Hybrid AGM

- > All registered and non-registered shareholders who joined online could view and participate in the AGM, submit questions and cast votes in near real-time through the online platform. To ensure the online AGM was conducted effectively, a chat response function was available on the online platform to address procedural questions from shareholders.
- > An attendance of over 200 shareholders participated online.
- > A high level of votes approving the following major items:
 - > the re-election of Directors ranging from about 73% to over 99%;
 - > the approval of the revised levels of remuneration payable to the Non-executive Directors (over 99%); and
 - > the general mandate to issue new shares of up to 5% of shares in issue only, at a price not being at a discount of more than 10% to a benchmarked price (about 99%) and to repurchase shares of not more than 10% shares in issue (over 99%).
- > Through the online platform, shareholders posed various questions and most of these questions were addressed during the meeting; and [questions not taken at the AGM](#) were answered in writing and made available on the Company's website. 

Communication with Shareholders


Multiple channels of communication and engagement

Our approach to shareholders communication and engagement include:

Channels	2022 Highlights
Hybrid AGM	<ul style="list-style-type: none"> > Chairman keynote speech > Shareholders were able to join the AGM online > Shareholders can vote in near real-time through the online platform > High voting approval rate on resolutions considered
Investor Meetings (Led by CEO, CFO and Investor Relations Department)	<ul style="list-style-type: none"> > Conducted 110 investor meetings > Non-deal roadshows with investors from Asia, UK and Europe
Analyst Briefings (Led by CEO, CFO and Director – Investor Relations and attended by investment community)	<ul style="list-style-type: none"> > Covering the Company's interim and annual results > A dedicated analyst briefing call was conducted immediately following the release of a CLP Holdings profit warning announcement
Reports and Announcements	<ul style="list-style-type: none"> > Annual Reports, Interim Reports and online Sustainability Reports  > Quarterly statements > Key announcements made: inside information; profit warning for EnergyAustralia earnings update; disclosable transaction for disposal and sell down of 10% of interest in Apraava Energy; appointment of Independent Non-executive Director; change of Non-executive Directors and Vice Chairman; and appointment of joint company secretaries
CLP Group Website 	<ul style="list-style-type: none"> > CLP's approach on corporate governance and sustainability > Policies and codes > Information on AGM including meeting proceedings and minutes > Updates of recent financial information and latest investor information > Analyst briefings materials > Publications and media releases
CLP Group Investor Relations app	<ul style="list-style-type: none"> > Allows users to access the latest news from CLP including our announcements, media releases and financial reports > Users can also access information such as event calendar and share price data at their convenience

These channels allow us to receive feedback from our shareholders and investment community. In addition, we have the shareholders' hotline as well as dedicated investor relations and company secretary email accounts for taking enquiries and for receiving information requests from shareholders (see Information for Our Investors on page 324).

Reviewing and enhancing shareholders communication

The Audit & Risk Committee is responsible for the annual review of the implementation and effectiveness of the [Shareholders' Communication Policy](#), which is available on our website. The most recent review was undertaken in October 2022 and the implementation and effectiveness of the Policy was confirmed. 

Group Internal Audit

CLP's Group Internal Audit (GIA) department plays a major role in monitoring the internal governance of the CLP Group. The head of the department, Senior Director – GIA, leads a well-resourced department of 24 (including 4 staff from Apraava Energy) highly qualified professional staff.

The Senior Director – GIA is a member of the Group Executive Committee, who reports directly to the Audit & Risk Committee and the CEO and has direct access to the Board through the Chairman of the Audit & Risk Committee. The Senior Director – GIA has the right to consult the Audit & Risk Committee without reference to management.

Independent Auditor

The Group engages PwC (Certified Public Accountants and Registered Public Interest Entity (PIE) Auditor) as our external independent auditor and we regard their independence as a fundamental governance principle.

How the Group ensures the independence of the external auditor:

- > The lead audit partner for CLP is subject to rotation every seven years (as per The International Federation of Accountants rules on independence of external auditors).
- > As part of the rotation, the current lead audit partner was first appointed for the 2021 financial year-end audit and she did not have any prior involvement in the CLP Group audit.
- > PwC is required to give an annual confirmation on their independence.
- > The Audit & Risk Committee will assess PwC's independence in considering their re-appointment.

In addition, PwC will not be engaged to perform non-audit work unless the non-audit work meets the criteria suggested in the Listing Rules and has been pre-approved by the Audit & Risk Committee or its delegates. There must be clear efficiencies and value-added benefits to CLP from the work being undertaken by PwC, with no adverse effect on the independence of their audit work, or the perception of such independence.

During the year, PwC provided the following audit and permissible audit related and non-audit services to the Group:


	2022 HK\$M	2021 HK\$M
Audit	42	41
Permissible audit related and non-audit services		
Audit related services (including Sustainability Report assurance, Continuing Connected Transactions limited assurance, limited assurance over EnergyAustralia's regulatory reviews and reporting, audits of CLP's provident funds and auditor's attestation)	12	9
Non-audit services (including tax advisory and other services)	-	1
Total	54	51

(For these purposes, **permissible audit related and non-audit services provided by PwC** include any entity under common control, ownership or management with PwC or any entity that a reasonable and informed third party having knowledge of all relevant information would reasonably conclude as part of the audit firm nationally or internationally.)

The fees of PwC and other non-principal external auditors are shown in Note 5 to the Financial Statements.

For the year ended 31 December 2022, the fees for permissible audit related services accounted for 22% of the total fees.

Other Stakeholders

Good governance requires due regard to the impact of business decisions (including impact on people, the environment and the economy), both on shareholders and on other key stakeholders. This Annual Report and our online [Sustainability Report](#) explain how we discharge our responsibilities to employees, customers, lenders, the environment and the communities in which we operate. 

Risk Management and Internal Control Systems

Effective risk management and internal control systems help the organisation anticipate its risk exposure, put controls in place to counter threats, and effectively pursue the set objectives. They are therefore an essential part of an organisation's operation and governance processes. This section explains (and contains cross references) the key features of our risk management and internal control systems.

Risk Management Framework

CLP's overall risk management framework is overseen by, and is the responsibility of, the Board, through its Audit & Risk Committee, and comprises four key elements.

Risk Management Philosophy	Risk Governance Structure	Risk Management Process	Risk Appetite
<p>CLP recognises that risk management is the responsibility of everyone within CLP and thus it is integrated into the business and decision-making process.</p>	<p>Clear roles and responsibilities are assigned to multiple layers within the organisation. This structure facilitates risk identification and escalation.</p>	<p>Through an integrated top-down and bottom-up risk review process, which enables risks identification and prioritisation throughout the Group, management maintains an open and effective communication channel to enable the timely escalation of material risk and adequate supervision of risk mitigation.</p>	<p>The nature and extent of the risks that the Group is willing to undertake in pursuit of its strategic and business objectives.</p>

The way we manage risk is set out in the Risk Management Report on page 143.

Internal Control Framework

CLP's structure of internal control is based on the internationally recognised COSO (Committee of Sponsoring Organisations of the Treadway Commission) 2013 integrated framework.

CLP Internal Control Framework

Our internal control systems are designed to manage rather than eliminate the risk of failure in achieving our strategic and business objectives, and can only provide reasonable, but not absolute, assurance against material loss or misstatement.

Board and Audit & Risk Committee Review

- > Responsible for the Group's risk management and internal control systems
- > Review effectiveness of these systems covering management's assessment on:
 - > Key business operations
 - > Changes in material risks
 - > Key internal controls
 - > Audit and compliance issues

CEO and Group Executive Committee

- > Review the effectiveness of risk management and internal control systems and report to the Board
- > Ensure that robust risk management and internal control systems are established and functionally effectively
- > Continuous monitoring and oversight

Group Functions

(Finance, Risk Management, Internal Control, Tax, Operations, Digital, Legal, Human Resources and Sustainability)

- > Establish relevant Group-wide Policies and Procedures
- > Oversee the risk and control activities relevant to respective functions

Risk and Control Owners

(Business Units, Functional Units, and individuals)

- > Responsible for the design, implementation, and maintenance of risk management and internal control systems within relevant area or responsibility
- > Establish and communicate policies, standards, procedures, and guidelines to staff concerned, which reflect the business objectives, values, and corporate culture of the Group

Independence Assurance

Group Internal Audit

- > Risk-based approach, concentrating on areas with significant risks or areas with major changes
- > Assurance on the adequacy and effectiveness of internal controls



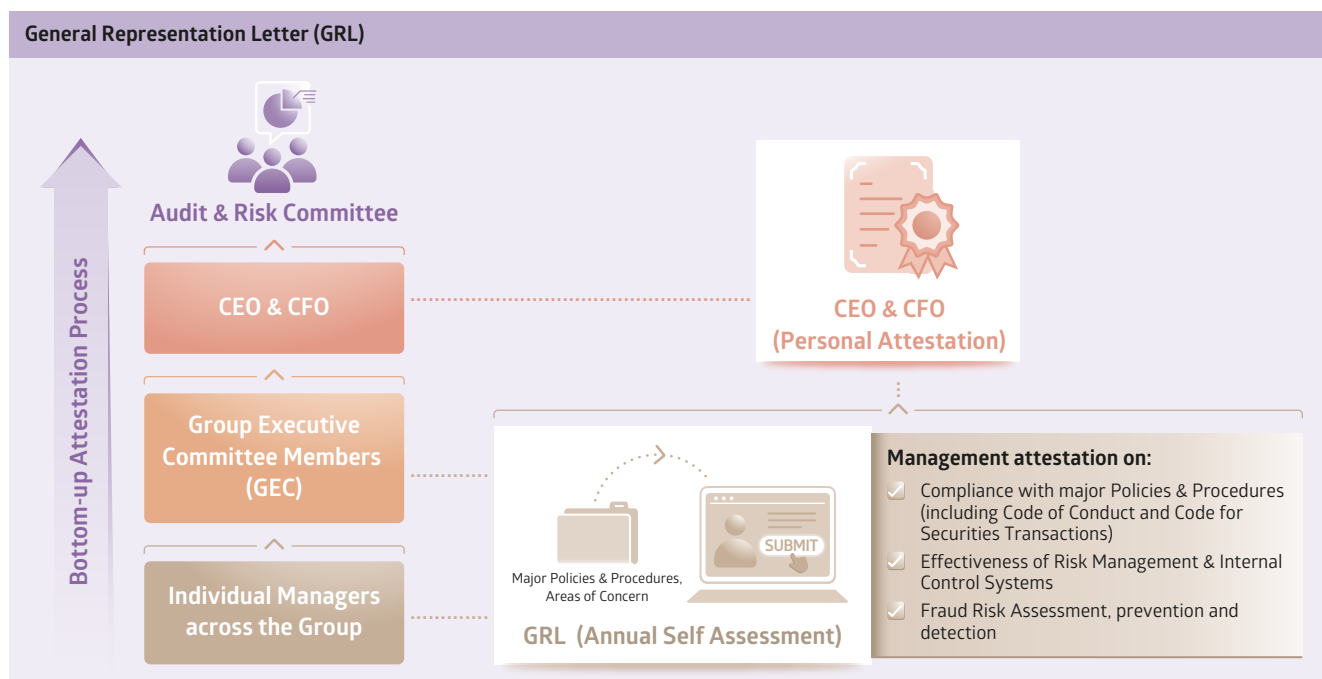
Management Assurance on Risk Management and Internal Control Systems

Management and designated staff evaluate the control environment and conduct risk assessments on business and processes. Material risks and associated controls, including mitigation when needed, are continually reviewed and updated. The Board is regularly informed of significant risks that may have an impact on CLP’s performance.

		Control Objectives		
		Operations	Reporting	Compliance
Integrated Assurance through Reporting and Attestation				
Management (CEO and GEC members)				
Regular management briefings	<ul style="list-style-type: none"> Covers briefings to the Board on the Group’s and individual business units’ risks and opportunities, operational and financial performance. 	✓	✓	
Management Attestation – General Representation Letter	<ul style="list-style-type: none"> Attestation on: compliance with our Code of Conduct, major policies and procedures; discharging duties on risk management and internal controls; the prevention, identification and detection of frauds. 	✓	✓	✓
Group Internal Audit				
Internal Audits Reports	<ul style="list-style-type: none"> Audit reports: independent appraisal on compliance with policies and procedures, and evaluation of the effectiveness of the overall controls. Special review reports: focus on new business areas and emerging risks. 	✓	✓	✓
Group Functions				
Risk Management Report	<ul style="list-style-type: none"> Compiles Quarterly Group Risk Management Report, that is reviewed and approved by the Group Executive Committee. 	✓	✓	✓
Internal Control Review Process	<ul style="list-style-type: none"> Follows the substance of the requirements under the Sarbanes-Oxley Act on internal controls over financial statements. Covers the scoping of significant processes and controls, assessment on controls design and operating effectiveness. High risk key controls are tested annually while lower risk key controls are tested on a rotational basis. Key controls are also tested by the independent auditor where relied on for the audit. 		✓	
Follow-up on outstanding audit issues	<ul style="list-style-type: none"> Internal audit issues identified and associated remedial actions are followed up and the progress is reported periodically. 	✓	✓	✓
Legal and Regulatory Compliance Report	<ul style="list-style-type: none"> Covers key regulatory compliance issues and legal cases for each region of the Group. 			✓

Management Assurance
Board / Audit & Risk Committee (ARC)

CLP's General Representation Letter Process



Effectiveness of Risk Management and Internal Control Systems


Through the Audit & Risk Committee's review, the Board is responsible for the Company's risk management and internal control systems and for reviewing their effectiveness.

The review process

Five times a year, the Audit & Risk Committee reviews management's findings and the opinion of GIA regarding the Company's risk management and internal control systems. The reviews cover management's assessment of the internal controls of key business operations, changes in material risks, internal control and compliance issues (both financial and non-financial) and significant issues arising from internal and the external audit reports.

For the year ended 31 December 2022, the Board considered the risk management and internal control systems of the Group to be effective and adequate. No significant areas of concern that might affect shareholders were identified.

Inside Information

We have our own [Continuous Disclosure Obligation Procedures](#) which set out the procedures and controls for handling and dissemination of inside information. The Procedures are on the CLP website. Our Continuous Disclosure Committee (established in 2016) conducted regular assessment of potential inside information. The members of the committee include the CEO, CFO, the Joint Company Secretaries and the Director – Investor Relations. Please also see "Our disclosure" on page 114. 

Corporate Governance – Continuing Evolution

As part of good governance, we do review and assess our own corporate governance practices and policies to ensure that these will continue to be value enablers for the business. We hope this Corporate Governance Report has been able to demonstrate that.

Shareholders who wish to make enquiries with the Board can contact the Company Secretary via our designated shareholders' hotline (852) 2678 8228, email at cosec@clp.com.hk or by posing questions at our general meetings. Requests for formal engagement with our management and / or Directors are also welcome.

By Order of the Board



David Simmonds
Chief Governance Officer
Hong Kong, 27 February 2023



A few words from our newly appointed Board Members*

I am delighted and excited to be joining the CLP Board. CLP's commitment to good governance and doing the right thing for and by the communities that CLP serve are values that are well aligned with my own personal values.

Mr Bernard Chan
joined the Board in October 2022

I am very excited about the transition from an executive role to a non-executive role. I do expect that in my new role as a Non-executive Director, the focus will be on oversight and strategy setting for the Group and in carrying out these duties, I will be drawing from my years of experience at CLP and my understanding of the business.

Mrs Betty Yuen
joined the Board in January 2023



* Full text of these Messages is set out in the Notice of AGM.

Risk Management Report

Proactive and effective risk management is an essential ingredient of good corporate governance, and a cornerstone of the long-term growth and success of CLP.

CLP's Risk Management Framework

In line with international standards and best practices, CLP defines risk as the effect of uncertainty on objectives. The effect can be positive, negative, or both, and can result in opportunities and threats. CLP aims to identify risks early so threats can be understood, managed, mitigated, transferred or avoided while opportunities can be captured where appropriate. This demands a proactive approach and an effective Group-wide risk management framework. The risk management framework at CLP comprises four key elements:



CLP's Risk Management Philosophy

CLP recognises that risk management is the responsibility of everyone within the business, and cultivating and embedding risk awareness into the organisational culture is critical to implementing the Group's risk management framework. Risk management is therefore integrated into all business and decision-making processes, including strategy formulation, business development, business planning, capital allocation, investment decisions, internal control and day-to-day operations.

CLP has clear risk management objectives:

- > At a **strategic level**, CLP focuses on the identification and management of material risks inherently associated with the pursuit of the Group's strategic and business objectives. In pursuing opportunities for growth and transformation, CLP aims to optimise risk and return decisions as defined and quantified through diligent and independent review and challenge processes.
- > At an **operational level**, CLP seeks to identify, analyse, evaluate and mitigate operational hazards and threats while enhancing and capturing opportunities for operational improvement where appropriate. It does this to create a safe, healthy, efficient and environmentally friendly workplace for employees and contractors while ensuring public safety and health and minimising environmental impact, as well as securing asset integrity and adequate insurance.



CLP's Risk Appetite

CLP's risk appetite represents the nature and extent of the risks the Group is willing to undertake in pursuit of strategic and business objectives. In line with CLP's Value Framework and the expectations of stakeholders, the Group takes only reasonable risks that fit its strategy and capability, can be understood and managed, and do not expose the Group to:

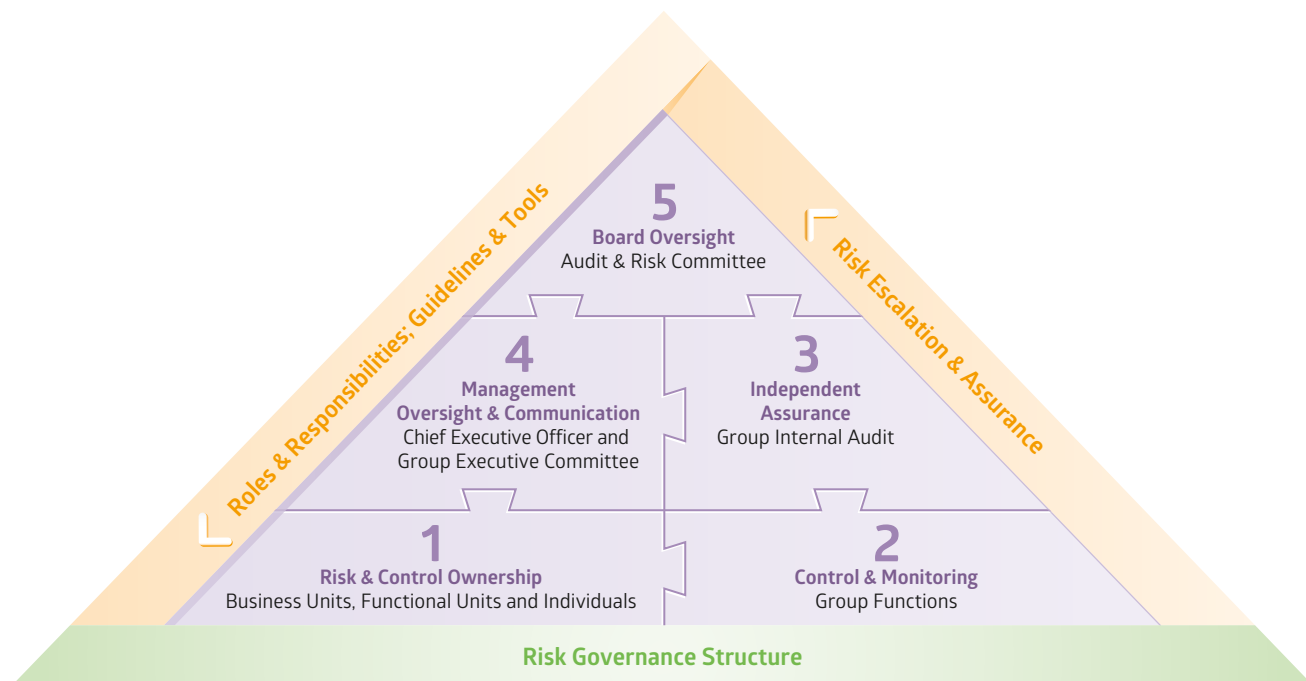
- > Hazardous conditions affecting the health and safety of employees, contractors and the general public;
- > Material financial losses impacting the financial viability and strategy execution of the Group;
- > Material breaches of external regulations that could lead to fines or loss of critical operational and business licences;
- > Material damage to the Group's reputation and brand;
- > Business or supply interruptions that could lead to severe impact on the community; and
- > Severe environmental incidents.

CLP has established its risk profiling criteria in line with its risk appetite to assess and prioritise each identified risk according to its consequence and likelihood. When assessing a risk, CLP therefore considers non-financial consequences, as detailed in its risk appetite, in addition to financial ones.



CLP's Risk Governance Structure

- > Facilitates risk identification and escalation while providing assurance to the Board;
- > Assigns clear roles and responsibilities and facilitates implementation with guidelines and tools; and
- > Adopts the **Five Lines of Assurance** approach as explained below:



Five Lines of Assurance

1 Risk and Control Ownership	Business Units, Functional Units, and Individuals: <ul style="list-style-type: none">> Are responsible for identifying and assessing key risks in their areas of responsibility, making effective risk management decisions, establishing and implementing risk mitigation strategies, balancing opportunities and threats, and promoting risk awareness;> Carry out risk management activities and reporting in their day-to-day operations, and ensure risk management processes and mitigation plans follow good practices and guidelines established by the Group; and> Appoint risk managers or coordinators to facilitate communication, experience sharing and risk reporting.
2 Control and Monitoring	Group Functions: <p>Departments responsible for Finance, Risk Management *, Internal Control, Business Development and Asset Management Oversight, Tax, Operations, Information Technology, Legal, Human Resources and Sustainability:</p> <ul style="list-style-type: none">> Establish relevant Group-wide policies, standards, procedures and guidelines; and> Oversee the risk and control activities of business units relevant to their respective functions. <i>(* See also the role of Group Risk Management below)</i>
3 Independent Assurance	The Group Internal Audit: <ul style="list-style-type: none">> Carries out independent appraisal of the effectiveness of the risk management framework.
4 Management Oversight and Communication	The CEO and the Group Executive Committee: <ul style="list-style-type: none">> Provide leadership and guidance for the balance of risks;> Review and report to the Board through the Audit & Risk Committee on the material risks affecting the Group, as well as their potential impact, their evolution and mitigating measures; and> Ensure that a review of the effectiveness of the risk management framework has been conducted at least annually, and provide confirmation of this to the Board through the Audit & Risk Committee.
5 Board Oversight	The Audit & Risk Committee, acting on behalf of the Board: <ul style="list-style-type: none">> Evaluates and determines the nature and extent of the risks the Board is ready to endorse in pursuit of the Group's strategic objectives;> Ensures an appropriate and effective risk management framework is established and maintained; and> Oversees management of risk identification, reporting and mitigation efforts.

Group Risk Management

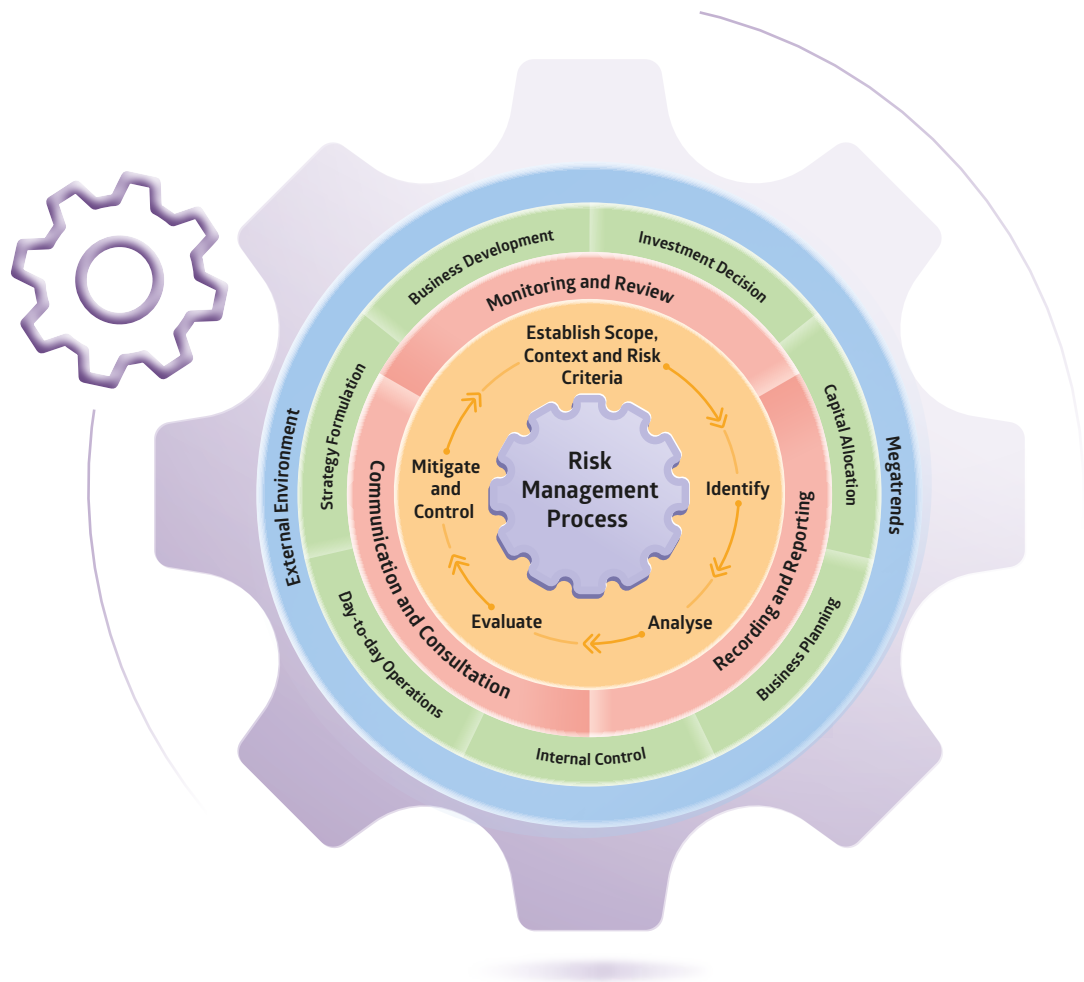
The Group Risk Management function is tasked with:

- > Implementing the Group's Risk Management Framework and assisting business units in implementing their own frameworks;
- > Managing regular risk review and risk reporting processes of the Group;
- > Facilitating independent risk appraisal for projects seeking endorsement by the CLP Holdings Investment Committee; and
- > Facilitating risk communication, experience sharing and risk reporting.



CLP's Risk Management Process

- > **Integration is key.** The process is integrated into business and decision-making processes, including strategy formulation, business development, business planning, capital allocation, investment decisions, internal control and day-to-day operations.
- > **Understanding the external environment and megatrends** which may have significant implications for CLP's business and markets. CLP recognises certain external global trends could have an impact on its operating and strategic environment. These megatrends encompass political, economic, social, environmental and technological changes which could rapidly evolve, changing the context in which the company operates.
- > **The core process involves:**
 - ✓ Establishing scope, context and risk criteria.
 - ✓ Identifying risks based on relevant, appropriate and up-to-date information.
 - ✓ Analysing risks with detailed consideration of risk sources, consequences, likelihood, events, scenarios, and existing controls and their effectiveness.
 - ✓ Evaluating risks against the established risk criteria to rank them and prioritise management efforts.
 - ✓ Developing and implementing controls and mitigation plans.
- > **Communication and Consultation:** A continuous and interactive process, involving communication and consultation with stakeholders.
- > **Monitoring and Review:** Regular monitoring and review according to the established risk governance structure and process.
- > **Recording and Reporting:** Processes and outcomes are documented and reported to facilitate communication and provide information for decision-making.



CLP's Risk Management Process as an integral part of business and decision-making processes – Examples

Quarterly Risk Review Process at Group Level

An integrated top-down and bottom-up risk review process

CLP adopts an integrated top-down and bottom-up risk review process to enable:

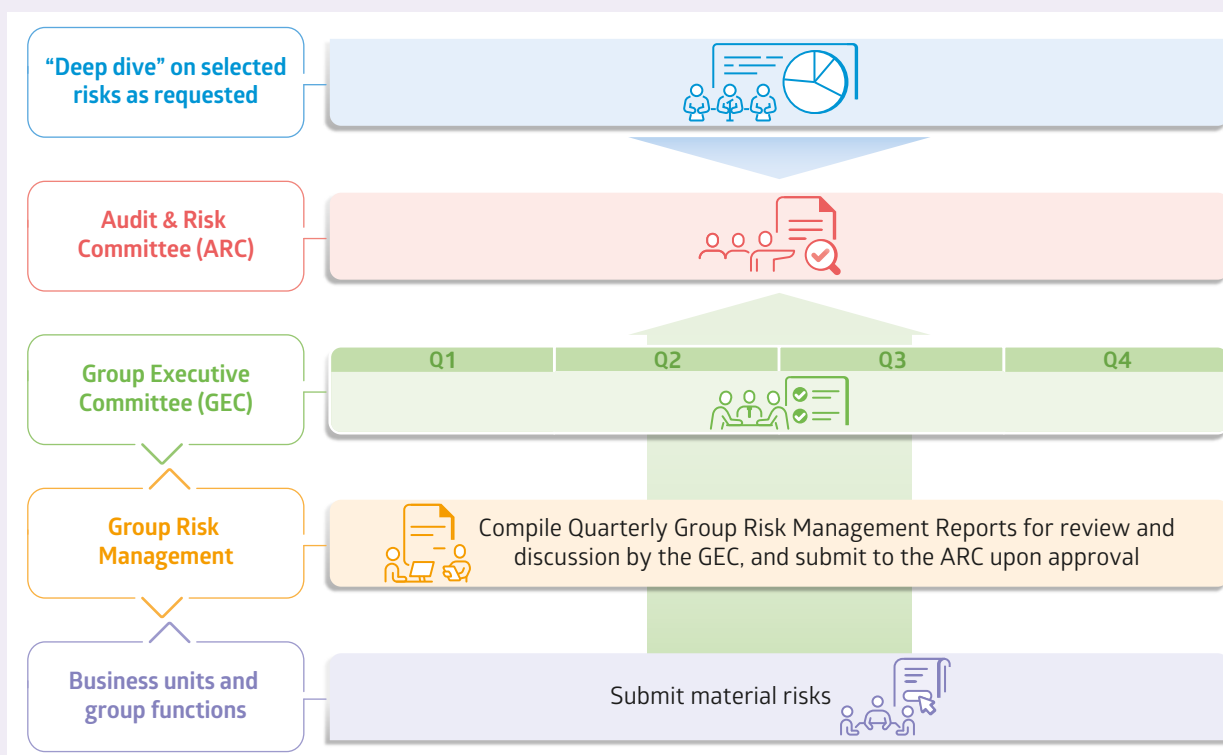
- (1) Comprehensive identification and prioritisation of all material risks throughout the Group;
- (2) Containment of material risks at the appropriate managerial level;
- (3) Effective risk dialogue among the management team; and
- (4) Proper governance of risk mitigation efforts.

Top-down Process

- > At Group Risk Management quarterly meetings, members of the Group Executive Committee discuss the top-tier risks and examine any other risk issues they consider important. This dialogue offers an opportunity for management to identify and respond to emerging risks early on, voice risk concerns, share risk insights and seek risk management guidance.
- > Group Risk Management facilitates the review of emerging risks by compiling relevant information from both internal and external sources.
- > Emerging risks that are identified and considered material are further assessed and monitored by relevant business units or Group functions.

Bottom-up Process

- > CLP's business units and Group functions are required to submit their lists of material risks identified through their risk management process to Group Risk Management on a quarterly basis.
- > Through a diligent process of aggregation, filtering, prioritising and consultation, Group Risk Management compiles a Quarterly Group Risk Management Report for review and discussion by the Group Executive Committee.
- > Upon approval, the report is submitted to the Audit & Risk Committee on a quarterly basis. "Deep dive" presentations on selected risks are given to the committee for more detailed review.



Risk Review Process for Investment Decisions

- > CLP adopts a multi-gated system of periodic project appraisals during development and investment cycles.
- > Investment opportunities or projects seeking endorsement by the CLP Holdings' Investment Committee are reported through the Project Investment Opportunities process, managed by the Business Development & Asset Management Oversight team of Group Finance.
- > In addition, CLP requires an independent, multi-disciplinary review of any investment proposal. Independent risk appraisal by Group Risk Management is part of the investment review process.
- > Group Risk Management ensures a detailed project risk assessment is carried out for each investment project. Detailed checklists and worksheets are used to identify risks, formulate mitigation measures and assess risk levels. Material risks and associated mitigations are highlighted and discussed at the Investment Committee, chaired by the CEO.

Risk Management Integrated with Internal Control Systems

- > Risk management is closely linked to CLP's Integrated Framework of Internal Control. Key controls are subject to testing in order to assess their effectiveness. Details on Internal Control are set out in the Corporate Governance Report on pages 138 to 142.

Risk Management in the Business Planning Process

- > At CLP, risk management is integrated into strategy and business planning by departments and business units across the Group.
- > As part of the annual business planning process, business units are required to identify all material risks that may impact the delivery of their business strategy and objectives. Overarching strategic risks to the Group are also reviewed. Identified risks are evaluated on the same set of risk criteria as the quarterly risk review process, and plans to mitigate the identified risks are developed. The material risks listed on pages 149 to 155 have been set out in CLP's 2023 business planning process.

Material Risks to the Group

As an investor and operator in the energy sector of the Asia-Pacific region, CLP's risk profile is categorised into six key risk areas – operational, commercial, regulatory, financial, market and human resources. The top tier risk profile is summarised below:

Managing Material ESG Topics for Business Sustainability

CLP regularly reviews how environmental, social and governance (ESG) issues are impacting the business and its stakeholders through an annual materiality assessment. The review process detailed on pages 22 to 23 helps align the Group's strategy with its purpose and responds to the evolving needs of stakeholders, uncovering emerging ESG challenges and opportunities for consideration in the risk review and business planning processes.

Following the latest assessment, five financially material topics that create or erode enterprise value were identified:



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

CLP's top-tier risk tables on pages 150 to 155 illustrate the correlation between material risks and the financially material topics.

Material Risks to the Group (continued)














Operational Risk	
<p>CLP's operations are exposed to a variety of operational risks relating to Health, Safety and Environment (HSE) incidents / compliance, physical security, plant performance, data privacy, cyber security attacks on operational technology (OT) and IT systems, project delivery and extreme weather events as a result of climate change.</p> <p>CLP continues to face the risk of safety incidents and contractors' safety management. Construction safety challenges are expected with a number of major projects entering or in construction phase.</p>	<p>CLP manages operational risk by:</p> <ul style="list-style-type: none"> a) Implementing Group-wide initiatives on eliminating exposure to serious injuries and fatalities (SIF) including the introduction of the Safety in Design framework, improvements to the incident investigation process and Group HSE Assurance Plan; b) Introducing Human and Organisational Performance (HOP) aspect in HSE management through the business with a focus on learning from frontline work and HOP lens in incident investigation process; c) Implementing Group HSE Management systems documents (Operational enablers) with a focus on critical controls in line with SIF potential; d) Implementing operations and systems reinforcements to maintain a high operational and emissions performance; e) Consolidating emergency response, crisis management, disaster recovery and business continuity plans with regular drills; f) Enforcing a Group-wide Project Management Governance System to facilitate the delivery of high-quality projects; and g) Introducing Group-wide cybersecurity policies and standards with appropriate controls, technologies and practices at all levels, while cultivating a cyber resilience culture across the Group.

Group Top Tier Risks – Operational	Related Material Topic(s)	Changes in 2022	Additional References
1. Major HSE incidents			Pages 56, 62, 82-83
2. COVID-19 outbreak			Pages 42, 48, 94-96
3. Cyber security attack – OT systems			Pages 80, 159
4. Cyber security attack – IT systems			Pages 80, 159
5. Physical security breach			Pages 77-78
6. Major failure – generation assets			Pages 43, 55, 77
7. Climate change – physical risk			Page 77
8. Renewables – lower performance			Pages 50, 60-61
9. Major projects delay / cost overrun			Pages 42-43

 Risk level increased  Risk level decreased  Risk level remains broadly the same













Material Risks to the Group (continued)

Commercial Risk	
<p>Commercial risk refers to potential losses arising from inadequate gross margins and non-performance of trading partners or counterparties. Building the capabilities to support a proactive procurement and supply chain management (PSCM) practice is critical to CLP's business and its transformation into a Utility of the Future. Currently, commercial disputes, delays in the collection of receivables, the financial health of counterparties, fuel supply interruptions, PSCM capabilities, reduced energy margins and price volatility are key commercial risks impacting CLP.</p> <p>Additionally, a number of digital transformation programmes are being implemented to improve customer engagement and experience, cost effectiveness, system flexibility and reliability.</p>	<p>CLP manages commercial risk by:</p> <ul style="list-style-type: none"> a) Diligently pursuing the resolution of payment delays and commercial disputes; b) Monitoring the financial health of counterparties; c) Liaising with fuel suppliers to mitigate ongoing sources of environmental, economic, operational, delivery and credit risks affecting fuel supply security, as well as establishing contingency planning for potential supply disruptions; d) Diversifying fuel sources and fuel procurement strategies to secure a stable supply of fuel at competitive prices; e) Promoting excellence in PSCM capabilities, driving supply chain resilience and agility, managing critical whole-of-CLP supplier relationships, and increasing visibility of practice, suppliers and supply markets through improved analytics capability and new technologies; and f) Establishing strong leadership in driving digital transformation and having formal governance over technology architecture and design decisions, as well as the execution of major programmes, while developing a data-driven, innovative culture.

Group Top Tier Risks – Commercial	Related Material Topic(s)	Changes in 2022	Additional References
10. Gas supply shortage – Hong Kong			Page 43
11. Coal supply shortage – Australia			Page 58
12. Tariff adjustment challenge – Hong Kong			Pages 42, 78
13. Delayed tariff payments in India and national renewable energy subsidies in Mainland China	—		Pages 49, 60
14. Digital transformation risk			Pages 72, 80, 84
15. Procurement and supply chain capabilities risks			Page 91
16. Decarbonisation and other commercial disputes with joint venture partners in coal power assets			Pages 49, 51-52, 69-70

Material Risks to the Group (continued)

Regulatory Risk	
<p>CLP's capability to achieve more stringent performance targets in Hong Kong presents a short-term regulatory risk exposure, while there is a possible risk of adverse regulatory changes in the medium to longer term.</p> <p>The Group's Australian business continues to face regulatory challenges which may restrict its margin recovery, increase the complexity and cost of market operations, and present significant regulatory compliance challenges.</p> <p>In Mainland China, the implementation of power sector reforms has gathered pace, with continuous expansion of market sales. Geopolitical tensions between China and its major trading partners may bring new challenges to CLP's business, including its supply chain and overseas investments.</p> <p>As CLP progresses its strategy to address climate change challenges, the pace of change in Government policies, regulations, technologies and market structures could be faster than the Group's responses.</p>	<p>CLP manages regulatory risk by:</p> <ul style="list-style-type: none"> a) Closely monitoring regulatory development as well as market and public sentiments; b) Working constructively with Governments to advocate CLP's position on regulatory changes; c) Mobilising internal resources to ensure timely responses to regulatory changes, while maintaining regulatory compliance and oversight; d) Communicating and highlighting the importance of a balance between a reliable and safe supply, care for the environment, and reasonable tariffs; e) Reinforcing CLP's efforts to care for the community and promote energy efficiency; f) Developing capacity and decarbonisation scenarios to achieve net-zero greenhouse gas emissions by 2050 and progressively phase out remaining coal-fired generation assets before 2040; g) Working with the Hong Kong Government to explore ways to enhance regional cooperation on zero-carbon energy; and h) Conducting supply chain review for assets on imported equipment and spares and exploring alternative sources and localisation opportunities.

Group Top Tier Risks – Regulatory	Related Material Topic(s)	Changes in 2022	Additional References
17. Regulatory changes – Hong Kong			Page 45
18. Regulatory changes – Australia			Page 58
19. Regulatory changes – Mainland China			Pages 51-52
20. Climate change – transition risk			Pages 56-57, 69-72, 92-94
21. International sanctions risk			Pages 73, 78
22. Regulatory compliance – Australia			Page 80

Material Risks to the Group (continued)

Financial Risk

CLP's investments and operations, which are long-term in nature, are exposed to financial risks in the areas of cash flow and liquidity, credit and counterparty risks, interest rate risks and foreign currency risks. Group-level earnings may also be impacted by marked-to-market fair value movements. Volatile foreign exchange and equity markets have further affected the cost of securing financing.

In the first half of 2022, CLP Holdings extended an aggregate of A\$1.35 billion in short-term shareholders' loans to help EnergyAustralia meet its liquidity needs and margin call for energy derivatives following an unprecedented spike in forward electricity prices.





CLP manages financial risk by:

- a) Timely review and replenishing of liquidity, maintaining investment grade credit ratings and preserving a healthy capital structure;
- b) Taking pre-emptive action for early completion of major financings on preferential terms;
- c) Securing debt funding diversity and maintaining an appropriate mix of committed credit facilities;
- d) Maximising the use of local funding options;
- e) Hedging most transactional foreign currency exposures in line with CLP's Treasury Policy;
- f) Pursuing "natural hedge" by matching the currency of revenue, cost and debt, and ensuring project-level debt financing is denominated in and swapped into a functional currency;
- g) Controlling financial counterparty exposure by transacting only with creditworthy and pre-approved financial institutions, allocating exposure limits based on banks' credit standing, and ensuring non-recourse to CLP Holdings for counterparties of CLP Holdings' subsidiaries and affiliates;
- h) Maintaining good, trustworthy relationships with lenders (banks and bondholders); and
- i) Ensuring transparency in financial communications and disclosures.

Group Top Tier Risks – Financial	Related Material Topic(s)	Changes in 2022	Additional References
23. Financial market volatility	—	↔	Pages 73-76, 295-304
24. Availability of competitive funding	—	↔	Pages 73-76, 295-304
25. Default of Group's financial counterparties	—	↔	Pages 73-76, 295



Material Risks to the Group (continued)

Market Risk	
<p>EnergyAustralia's business faced considerable operational challenges amid unprecedented conditions in Australia's energy markets. The business incurred high costs to settle forward contracts that could not be covered due to reduced generation at Yallourn Power Station and Mount Piper Power Station as a result of a variety of operational issues.</p> <p>Business in Mainland China has been affected by changes in the structure of the economy, tighter environmental rules, increasing market sales and coal price volatility. Rising coal prices continued to affect the margins of coal-fired power stations in 2022. Higher tariffs negotiated with customers partially alleviated the situation but were insufficient to cover the fuel cost impact. Nevertheless, this exposure has significantly reduced since the divestment of Fangchenggang in November 2022.</p>	<p>CLP manages market risk by:</p> <ul style="list-style-type: none"> a) Regular review of business operations including, but not limited to, plant reliability estimates, hedging strategies, business planning approaches and company capital structures; b) Managing market offers including pricing and other service differentiators for customer acquisition and retention; c) Actively managing CLP's wholesale energy portfolio, and implementing hedging strategies to align wholesale and retail positions; d) Following approved energy risk policy, with energy market transactions subject to approved limits and controls; e) Exploring different revenue streams and value-added services for customers, while continuing business innovation to meet evolving customer needs; f) Improving current operations, fuel procurement and development strategy, while closely monitoring operating cash flow in view of market volatility; and g) Investing in plant reliability and upgrades and delivering good plant performance.

Group Top Tier Risks – Market	Related Material Topic(s)	Changes in 2022	Additional References
26. Unprecedented volatility in wholesale electricity market impacting EnergyAustralia			Pages 54-55, 58
27. Market risks in Mainland China			Pages 49, 51-52

Material Risks to the Group (continued)

Human Resources Risk	
<p>Executing the decarbonisation and digital transformation agenda and realising current and potential opportunities in Hong Kong and Mainland China, especially the Greater Bay Area (GBA), will bring significant challenges in succession management, talent attraction and retention, leadership, culture change and implementation of new operating model. Organisation capability development challenges are likely to be exacerbated in the coming years by continued geopolitical volatility, socioeconomic issues, the pandemic situation and demographic shifts.</p>	<p>CLP manages human resources risk by:</p> <ul style="list-style-type: none"> a) Managing senior management succession, in particular ensuring continuity of stakeholder relationships, and managing heightened leadership complexity; b) Resourcing with innovation, digital and business development skillsets in Hong Kong and Mainland China, accelerating the development of engineering talent to address retirement needs and facilitating talent mobility across the GBA; c) Evolving to more agile operating models and human resources management systems and embedding significant organisation and business process changes; and d) Managing the culture agenda by embedding CLP's values and appropriate risk culture in an increasingly diverse workforce, building resilience, and evolving mindsets and behaviours to embrace change at pace, calculated risk-taking, and collaboration between employees, customers and external partners.

Group Top Tier Risks – Human Resources	Related Material Topic(s)	Changes in 2022	Additional References
28. Organisation capability development for growth and transformation			Pages 82-87

Effectiveness Review of Risk Management and Internal Control Systems

CLP adopts the Five Lines of Assurance approach to coordinate and optimise its risk and assurance efforts as described on pages 144 to 145 of this report. Combined assurance includes Board oversight by the Audit & Risk Committee, management oversight by the CEO and the Group Executive Committee, independent assurance by internal audit, control and monitoring by Group functions, and risk and control ownership by business units. It should be acknowledged that CLP's risk management and internal control systems are designed to manage rather than eliminate the risk of failure in achieving our strategic and business objectives and can only provide reasonable – not absolute – assurance against material loss or misstatement.

The Audit & Risk Committee, on behalf of the Board, has reviewed the effectiveness of the Group's risk management and internal control systems during the period covered by this Annual Report. The details of the effectiveness review are described in the Corporate Governance Report on page 141 and the Audit & Risk Committee Report on page 159.

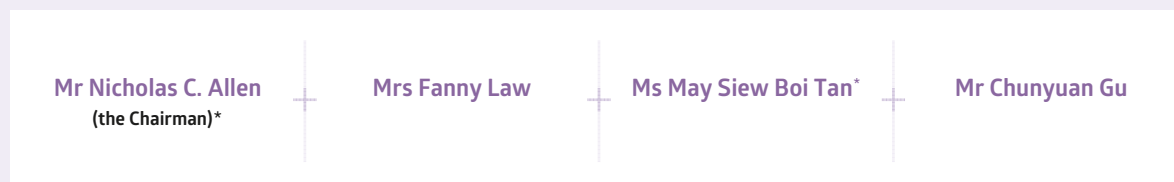


Nicolas Alain Marie Tissot
Chief Financial Officer
Hong Kong, 27 February 2023


Audit & Risk Committee Report

Members

The Members of the Audit & Risk Committee are appointed from the Independent Non-executive Directors by CLP Holdings' Board of Directors. This Committee comprised the following Members during the reported period (full-year 2022 and for 2023 up to the date of this Report) (the Period):



* Ms May Siew Boi Tan will succeed Mr Nicholas C. Allen as the Chair of the Committee with effect from 28 February 2023 and Mr Allen will remain as a Member of the Committee.

[Biographies](#) of the Members are set out in Board of Directors on page 100 and on our website. 

The Committee works closely with the auditors and management-level group functions and, in addition to the Members, regular attendees at the Committee's meetings are:

- > Chief Executive Officer – Mr Richard Lancaster;
- > Chief Financial Officer – Mr Nicolas Tissot;
- > Chief Strategy, Sustainability and Governance Officer – Mr David Simmonds;
- > Senior Director & Group Controller – Mr Pablo Arellano;
- > Senior Director – Group Internal Audit (GIA) – Ms Kathy Liu;
- > Joint Company Secretary – Mr Michael Ling; and
- > Independent Auditor – the engagement partner and others from PwC.

Other members of management attended the Committee meetings from time to time to make presentations and discuss matters of interest to the Committee.

Meetings and Attendance

During the Period, the Committee held six meetings in 2022 and another two meetings in 2023. The Chairman met regularly and individually with each of PwC, the Senior Director – GIA and the CFO. The Committee commenced its meetings with scheduled sessions in the absence of management for the Committee Members and PwC, as well as sessions for Committee Members only. Two private meetings between Committee Members and PwC were held and six sessions for Committee Members only were held during the Period.

Individual attendance of Members for the 2022 meetings is set out in the Corporate Governance Report on page 124.

EnergyAustralia

CLP's wholly-owned subsidiary, EnergyAustralia, has its own board of directors that includes independent non-executive directors. The EnergyAustralia board has established an audit and risk committee (ARC) and its members are EnergyAustralia's non-executive directors independent of EnergyAustralia's management.

The Committee's work with respect to the operations of EnergyAustralia is strengthened and supplemented by the work of EnergyAustralia ARC. There is an open invitation between this Committee and the EnergyAustralia ARC for members to attend the other committee's meetings.

During the Period, the Chairman of the Committee participated in five EnergyAustralia ARC meetings and the Chairman of EnergyAustralia ARC participated in three meetings of the Committee. In addition, Members of the Committee attended additional EnergyAustralia ARC meetings in July and December where key accounting judgements for EnergyAustralia's half-year and full-year financial statements were considered.

Highlights of the Committee's Work

The Committee devoted considerable time in overseeing the financial reporting for the Group, reviewing the Group Internal Audit reports and monitoring some of the material risks faced by the Group.

In advance of the release of the CLP Holdings profit warning announcement in June regarding the unfavourable fair value movements on the forward contracts of EnergyAustralia, the Committee had a deep dive session into the underlying financial position of EnergyAustralia.

On risks, in addition to the standing item of cybersecurity, the topics "Impact of Recent Global Energy Developments" and "Update on EnergyAustralia's challenges" were presented and the associated risks were examined by the Committee.

The following table provides an overview of how the Committee spent its time during the Period:

	2022						2023	
	Jan	Feb	Apr	Jun	Aug	Oct	Jan	Feb
Risk Management, Internal Control and Compliance								
Quarterly risk management report		●	●		●	●		●
In depth briefing on heightened risk topics								
> EnergyAustralia retail business			●	●		●		
> Cybersecurity			●			●		
> Global energy briefing			●					
Internal control review update		●		●		●		●
Management's general representation letter		●			●			●
Outstanding internal audit issues		●	●	●	●	●		●
Legal and regulatory compliance		●			●			●
Annual and Interim Financial Reports								
Annual and Interim financial statements and reports		●			●			●
Assessment of critical accounting judgements	●	●		●	●		●	●
ESG data assurance review		●						●
Internal and External Auditing								
Internal audit results and audit issues		●	●	●	●	●		●
Ethics and controls commitment surveys			●					
PwC's audit report, audit plan and audit progress	●	●	●	●	●	●	●	●
Audit fees and non-audit engagements by auditors	●	●	●		●		●	●
Corporate Governance								
Corporate governance trends, developments and related policies			●			●		●
Code of Conduct and whistleblowing cases		●	●	●	●	●		●
Continuing connected transactions		●						●

Summary of Work Done

In addition to the Highlights of the Committee's Work for the Period, the table below explains the work carried out by the Committee and how it discharged its responsibilities for the Period.

Areas of Focus	
Risk Management, Internal Control and Compliance	
Effectiveness of risk management and internal control systems	<p>The Committee received and reviewed management's periodic internal control reports and the Group's quarterly risk management reports. As part of the review of the half-year and full-year financial statements, the Committee examined and received the General Representation Letters from the CEO and CFO (see page 141 for further details regarding the General Representation Letters).</p> <p>The Committee's monitoring of the risk management and internal control systems was supported by the review work and reporting by GIA and by the independent auditor's report of their testing of the control environment of the Group.</p> <p>During the Period, no internal control issue that would be material to the integrity of the financial statements was identified.</p> <p>The Committee analysed and was satisfied that the Group's risk management and internal control systems were effective and adequate for the Period.</p>
Deep dive briefings	<p>Having regard to the nature of the risks and the potential exposure for the Group, management presented deep dive briefings on the following topics:</p> <ul style="list-style-type: none"> > EnergyAustralia – Management gave an update and explained the latest financial position and challenges for EnergyAustralia. The Committee considered and discussed with management the potential exposure of the energy forward contracts; the implications on the risk environment for EnergyAustralia; and the strategy on the forward selling of energy contracts. > Cybersecurity – Management explained to the Committee the strategic approach of cybersecurity and the need for a strong level of engagement and transparency with the business unit. The Committee was particularly focused on the convergence of information technology and operational technology and how the business case and risks should be managed; and the challenges of recruiting and retaining talents for the cybersecurity function. The Committee also took note that the EnergyAustralia ARC was actively overseeing the cybersecurity issues for EnergyAustralia. > Recent Global Energy Developments – With the challenging global energy markets developments, management presented to the Committee the impact of the recent global developments on the business units of the CLP Group namely, Hong Kong, Australia and the Mainland China business. The Committee examined the potential impact of the fuel prices and the security of supply on the different business units and assets of the Group.
Reporting on risk management	<p>With the evolving situation, the Committee analysed and monitored the potential risks and impacts of the Russia-Ukraine conflict through the additional reporting on these issues by management.</p>
Cybersecurity	<p>Cybersecurity continued to be an important area of oversight of the Committee and is a standing agenda item for the April and October Committee meetings.</p>

Areas of Focus

Risk Management, Internal Control and Compliance

<p>Compliance</p>	<p>As part of the review of the half-year and full-year financial statements, the Committee considered a comprehensive legal and regulatory report on the Group covering key regulatory compliance issues and legal cases for each region of the Group.</p> <p>The Committee reviewed the Group's compliance with applicable legal and regulatory requirements including the Listing Rules, the Corporate Governance Code, the Companies Ordinance and the Securities and Futures Ordinance.</p> <p>The Committee acknowledged that the only exception to compliance with all the mandatory and recommended requirements of the Corporate Governance Code is that CLP does not publish quarterly financial results (as a recommended requirement); and the Committee supported the considered reasons for this exception (please refer to page 115).</p>
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Annual and Interim Financial Reports

<p>Annual Reports and Interim Report</p>	<p>The Committee reviewed the 2021 and 2022 Annual Reports and the 2022 Interim Report and on the recommendations from the Committee, these were approved by the Board.</p>
<p>2022 Financial Statements – accounting judgements</p>	<p>Management and PwC presented to the Committee the key judgements with material accounting impact. These included the review of the carrying values of the Group's generation assets and EnergyAustralia's goodwill for retail business unit, the accounts receivables for the renewable projects in Mainland China, and the accounting treatments and disclosures of key transactions and events.</p> <p>The Committee critically assessed these and found the judgements put forward to be acceptable for each of the issues presented.</p>
<p>ESG data assurance</p>	<p>The Committee considered and acknowledged PwC's report on the ESG data assurance in respect of the 2021 and 2022 identified ESG metrics disclosed in the Annual Report, Sustainability Report and Climate-related Disclosures Report. </p> <p>The Committee considered and approved the appointment of PwC India for undertaking the integrated reporting assurance for Apraava Energy.</p>

Internal and External Auditing

<p>Internal audit</p>	<p>The Committee received and considered reports from the Senior Director – GIA. GIA issues two types of reports: a) audit reports which provide independent appraisal of the audit unit's compliance with prescribed policies and procedures, and evaluation of the effectiveness of the overall controls; and b) special review reports which focus on new business areas and emerging risks, where control advisory is provided. GIA has also conducted desktop review for selected lower risk audit units to enhance audit effectiveness and timeliness of communication with those units.</p> <p>For the year 2022, a total of 22 audit, 13 special reviews and one desktop review were completed. One of the audit reports carried a not satisfactory audit opinion.</p> <p>None of the control weaknesses identified had a material impact on the financial statements.</p>
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Areas of Focus

Internal and External Auditing

Internal audit function	<p>The Committee reviewed the adequacy of resources, staff qualifications and experience, training programmes and budget of the GIA function as well as the accounting and financial reporting functions of the Group.</p> <p>From the independent peer review of GIA that was conducted by Ernst & Young in 2021, it was concluded that the GIA projects performed were found to be in generally conformance with the IIA (the Institute of Internal Auditors) Standards and there was an overall positive response on GIA's effectiveness; in addition, a number of recommendations were also made. As a follow up for 2022, the Committee took note of the implementation of the follow up actions when considering the effectiveness of the GIA function.</p> <p>The proposed framework for technology audit and the implementation by GIA were well received by the Committee and Members of the Committee encouraged the greater use of technology in the internal audit related work.</p>
Financial Statements – auditor's opinion	<p>For both the 2021 and 2022 financial statements, PwC presented the auditor's opinion on the financial statements and the Key Audit Matters that had material impacts on the financial results and position of the Group. The Key Audit Matters identified were considered and reviewed by the Committee.</p>
Fees to independent auditor and its re-appointment	<p>The Committee reviewed the following fees payable to PwC:</p> <ul style="list-style-type: none">➤ audit fees for 2021 and 2022 for approval by the Board; and➤ permissible audit related and non-audit services provided by PwC for 2021 and 2022. <p>In addition, the Committee reviewed the revisions to the Guidelines on audit, audit related and non-audit services provided by the external auditor. It also reviewed the proposed permissible audit related and non-audit services to be provided by the external auditor in the coming year.</p> <p>At the 2022 AGM, over 99% of the shareholders voting supported the re-appointment of PwC and they were re-appointed as independent auditor for 2022.</p> <p>Having considered PwC's performance and independence as CLP's independent auditor, the Committee recommended to the Board that PwC be re-appointed as independent auditor for 2023 and this will be considered by shareholders at the forthcoming AGM. PwC also issued a letter of independence to the Committee.</p> <p>Ms Yee Shia Yuen has been the lead audit partner for CLP since the financial year 2021, after her predecessor retired from CLP's audit assignments upon the completion of seven years of service after the 2020 financial year-end audit. This rotation is consistent with The International Federation of Accountants rules on independence of external auditors. The Committee supports this approach for it believes that changing the lead audit partner regularly ensures the independence, objectivity and fresh perspectives the Committee requires in CLP's independent auditor.</p> <p>Further details of the fees payable to PwC and the assessment of their independence can be found on page 137.</p>

Areas of Focus

Corporate Governance

<p>Corporate governance practices</p>	<p>The Committee received a report on Corporate Governance Policies and Practices Review covering shareholders' communication policy, Code of Conduct, whistleblowing policy, procedures on gifts and entertainment, anti-fraud policy and policy on making political contributions.</p> <p>The Committee took note of some of the market and regulatory developments and trends that might have an impact on CLP's corporate governance practices, including auditors' rotation and topical Board-related issues such as Board tenure and time commitment.</p> <p>The Committee also reviewed the revised and amended CLP Code.</p>
<p>Continuing connected transactions</p>	<p>The Committee considered the work carried out by PwC on the annual reporting and confirmation of continuing connected transactions as required by the Listing Rules.</p>
<p>Culture-related</p>	<p>The Committee received and considered the periodic updates on the breaches of the Code of Conduct. None of the 10 breaches in 2022 were material to the Group's financial statements or overall operations. The breaches were mainly related to issues of workplace behaviour and individuals' ethics and integrity. None of the reported Code of Conduct violations involved employees at the grade level of senior manager or above.</p> <p>The Committee analysed the findings of the 2021 ethics and controls commitment survey for the employees and took note that the "below-the-line" survey answers were at a low level, which was consistent with results of the previous years.</p>

Responsibilities

Primary Responsibilities


The Committee's primary responsibilities include:

- satisfying itself that good accounting, audit principles, risk management, internal controls and ethical practices are applied on a consistent basis throughout the CLP Group (without limiting the primary responsibilities of all the business unit managers throughout the Group);
- assuring adequate risk management and internal control systems are in place and followed and where deficiencies are found, appropriate remedial actions are taken in a timely manner;
- assuring appropriate accounting principles and reporting practices are followed;
- performing the corporate governance duties described further in this Report and fulfilling the functions conferred on the Committee by the CLP Code;
- satisfying itself that the scope and direction of external and internal auditing are adequate; and
- reviewing and making sure the assurance of the sustainability data in the Sustainability Report is appropriate.

Accountability

The Committee is accountable to the Board. The Chairman reports to the Board at the Board meetings in which the half-year and full-year financial statements are considered and this would cover key issues considered by the Committee in the course of the review of the preparation of the financial statements.

Terms of Reference

The Committee's terms of reference follow international best practice and they also comply with the HKICPA's "A Guide for Effective Audit Committees" and the Corporate Governance Code. Full [terms of reference](#) can be found on CLP's and the Hong Kong Stock Exchange's websites. 

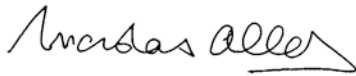
Audit & Risk Committee Effectiveness

The Company Secretary evaluated the performance and effectiveness of the Committee during 2022 and the Committee was pleased to note that the Company Secretary concluded that the Committee was performing its responsibilities in an effective manner in accordance with its terms of reference.

The evaluation was reviewed and the conclusion was confirmed by internal and independent auditors. The CLP Holdings Board also endorsed the Company Secretary's evaluation.

Looking Ahead

It has been a pleasure to serve on this Committee as the Chair and I'm pleased that the incoming Chair is well qualified and experienced to lead this Committee forward. The operating environment for the Group will only become more complex and challenging, however, it gives me great confidence that the Committee is in good stead to help the Group navigate through this with a well-developed process of checks and balance and clear oversight of the matters that this Committee is responsible for.



Nicholas C. Allen


Chairman, Audit & Risk Committee
Hong Kong, 27 February 2023

Sustainability Committee Report

Members

The Members of the Sustainability Committee are appointed by CLP Holdings' Board of Directors to oversee CLP's sustainability issues. This Committee comprised the following Members during the reported period (full-year 2022 and for 2023 up to the date of this Report) (the Period):

Mr Richard Lancaster (Chief Executive Officer) (the Chairman)		Mr Nicholas C. Allen (Independent Non-executive Director)		Mrs Fanny Law (Independent Non-executive Director)		Ms May Siew Boi Tan (Independent Non-executive Director)		
Ms Christina Gaw (Independent Non-executive Director)		Mr Bernard Chan (Independent Non-executive Director) (appointed in October 2022)		Mr Andrew Brandler (Non-executive Director)		Mr Philip Kadoorie (Non-executive Director)		Ms Quince Chong (Chief Corporate Development Officer)

[Biographies](#) of the Members are set out in Board of Directors on page 100, Senior Management on page 108 and on our website. 

The governance of sustainability is integrated in the CLP Group's corporate governance structures – from Board-level Committees to management-level group functions and business units (please refer to page 116 of the Corporate Governance Report on “CLP's Approach to ESG Reporting”).

The Sustainability Committee holds the primary role of overseeing the management of the Group's sustainability issues. The Committee is supported by the management-level Sustainability Executive Committee which in turn provides oversight of management's implementation of sustainability-related strategies, policies and goals. The Group Sustainability Department reports to and seeks guidance from the Committee and the Sustainability Executive Committee on a range of sustainability matters including climate action, embedding sustainability practices into business strategies and planning, emerging sustainability risks and opportunities, and sustainability and climate-related reporting.

Regular attendees at the Committee's meetings include the following members of the Sustainability Executive Committee, the Director – Group Sustainability (Mr Hendrik Rosenthal) and Joint Company Secretary (Mr Michael Ling):

- > Chief Financial Officer – Mr Nicolas Tissot;
- > Chief Operating Officer – Mr Derek Parkin (since September 2022), in place of Mr Michael Hutchinson, Acting Chief Operating Officer (since December 2021);
- > Chief Strategy, Sustainability and Governance Officer – Mr David Simmonds; and
- > Chief Human Resources Officer – Ms Eileen Burnett-Kant.

Meetings and Attendance

The Committee meets as frequently as required and the Committee met four times during the Period.

Highlights of the Committee's Work




Following on from the publication of our Climate Vision 2050, the Committee has been closely monitoring the evolving developments on climate change. Ensuring that the Committee maintains a balanced view and is updated on the topical ESG issues, the Committee was briefed on the latest developments by two leading external experts on separate occasions on the topics of the impact of the energy crisis on climate action and the key outcomes of COP27. On the other hand, the Committee had a robust review of the Climate Vision 2050 and how CLP's performance and commitment on climate action have been received by CLP's stakeholders.

The following table provides an overview of how the Committee spent its time during the Period:

	Feb	2022 Oct	Nov	2023 Feb
Climate Change-related Matters	●	●	●	●
Other Sustainability Matters – risks, opportunities and emerging issues		●	●	
Sustainability Reporting / Indices Performance	●		●	●
Sustainability Governance			●	
Health, Safety, Security and Environment	●	●		
Community, Charitable and Environmental Partnerships and Initiatives	●			●

Summary of Work Done

In addition to the Highlights of the Committee’s Work for the Period, the table below explains the work carried out by the Committee and how it discharged its responsibilities for the Period.

Areas of Focus	
Climate Change-related Matters	
<p>Climate Vision 2050 review and climate-related disclosures</p> 	<p>The Committee examined the feedback and comments from CLP’s stakeholders on the Climate Vision 2050 targets. The Committee considered the comments in light of CLP’s position in the different markets that the Group operates in and that CLP should formulate its unique climate action narrative having due regard to the markets and community needs. Key updates to the narrative regarding Climate Vision 2050 were proposed and considered by the Committee and these included the position on coal-fired assets and the impact of the strategy for the international business on CLP’s carbon reduction. The Committee endorsed the proposed approach of enhancing the disclosures in these areas in the coming Annual Report, Sustainability Report and Climate-related Disclosures Report.  </p>
<p>Climate change-related developments and risks</p>	<p>The Committee received a briefing from Lord Adair Turner (Chair of the Energy Transitions Commission) on the impact of the energy crisis on climate change. The key topics that were covered in the discussion included the forecasted total system generation costs in zero carbon power systems; the forecasted demand for hydrogen and the associated sources of supply and production costs; the global energy transition investment by sector; and the Russia-Ukraine conflict and the possible alternatives to Russian gas.</p> <p>The Committee had the benefit of a briefing by another international climate change expert, Mr Dirk Forrister (CEO of the International Emissions Trading Association), on the key developments at COP27, including the carbon market status and the role that both compliance and voluntary carbon markets are expected to play in achieving the goal of “net-zero”.</p>
Other Sustainability Matters – risks, opportunities and emerging issues	
<p>Voluntary Carbon Markets</p>	<p>The Committee was briefed on the recent developments and trends in the voluntary carbon markets and implications for CLP. The Committee took note of some of the key challenges of these markets which included an opaque market and under-regulation with concerns of credibility, price discovery, decarbonisation hierarchy and lack of disclosure obligations.</p>
<p>Sustainability Materiality Assessment</p>	<p>The materiality assessment for 2022 had been updated and the Committee was supportive of the results of the materiality assessment, including the continued use of the double materiality framework.</p>

Areas of Focus

Sustainability Reporting / Indices Performance

Sustainability Reporting Standards



The Committee considered and endorsed the enhanced approach to reporting for the Annual Report and [Sustainability Report](#), in particular, the stakeholder approach and the continued use of financial materiality and impact materiality. The Committee noted that CLP's latest [Climate-related Disclosures Report](#) was based on the Exposure Draft of the ISSB draft standard and overall, CLP would be well positioned to meet the new reporting standards when they come into effect in the future. 🌱🍊

The Committee also considered and endorsed the contents of the [2022 Sustainability Report](#) and the [Climate-related Disclosures Report](#). 🌱🍊

Performance on external sustainability indices

As a standing item, the Committee was briefed on, and monitored, CLP's performance on external sustainability indices.

The Committee analysed the results of the key sustainability indices including the Dow Jones Sustainability Index (DJSI) and Hang Seng Corporate Sustainability Index Series. The Committee took note of the evolving ESG assessment and benchmarking initiatives and discussed the potential implications of CLP's performance in the indices.

Further details of selected 2022 sustainability ratings for CLP's 2021 sustainability performance are shown in the following table. The scores reflected the performance of the year before.

Index Name	2022 Score	2021 Score	2020 Score
DJSI	75	77	77
CDP – Climate Change	A–	A–	B
Hang Seng Corporate Sustainability Index	AA+	AA	AA–
FTSE4Good	4.1	3.4	3.6
MSCI ESG Leaders Indexes	A	AA	AA
Sustainalytics ESG Risk Ratings*	26.9 Medium Risk	27.8 Medium Risk	29.9 Medium Risk

* A lower score represents a lower ESG risk.

Sustainability Governance

Annual review of ESG resources

The Committee endorsed the key findings from the annual review of the ESG performance and reporting function which assessed the adequacy of resources, staff qualifications and experience, training programmes and budget.

Areas of Focus

Health, Safety, Security and Environment

Environmental target setting	The Committee considered and endorsed the short- and long-term environmental performance targets proposed by management, with considerations on the proposed metrics and the dominant contributors on emissions and resources for the CLP Group.
Operational Health, Safety, Security & Environment Standards	The Committee examined and approved the HSE Plan (2022-2024) which sets out a series of initiatives to strengthen HSE performance across CLP operations through building capabilities, rethinking risk, involving stakeholders, maintaining a healthy and engaged workforce and ensuring environmental sustainability.

Community, Charitable and Environmental Partnerships and Initiatives

Community initiatives	The Committee reviewed management's report on the community initiatives undertaken by CLP in 2022 and gave their support on the 2023 programme highlights for Hong Kong, Mainland China, EnergyAustralia and Apraava Energy.
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Responsibilities

Primary Responsibilities

The Committee's primary responsibilities include:

- > reviewing, endorsing and reporting to the Board on CLP's sustainability frameworks, standards, priorities and goals and overseeing CLP Group-level strategies, policies and practices on sustainability matters to attain those standards and goals;
- > reviewing and reporting to relevant Board Committees on key international sustainability trends, benchmarking against peers, sustainability risks and opportunities and other emerging issues;
- > overseeing, reviewing and evaluating CLP Group's sustainability performance in terms of internationally-recognised metrics relevant to the industry, as well as the requirements of sustainability stock indices and the desirability of CLP's inclusion in those indices;
- > reviewing and advising the Board on CLP's public reporting with regard to its performance on sustainability matters; and
- > overseeing CLP's community, charitable and environmental partnerships, strategies and related Group-level policies and making recommendations to the Board on any changes to those partnerships, strategies and policies.


Accountability

The Committee is accountable to the Board. The Committee is authorised by the Board to investigate all matters that fall within its terms of reference.

The objectives of the Committee are to oversee management and advise the Board on matters required to enable:

- a the CLP Group to operate on a sustainable basis for the benefit of current and future generations;
- b sustainable growth by maintaining and enhancing CLP Group's economic, environmental, human, technological and social capital in the long term; and
- c the effective management of CLP Group's sustainability risks.

Terms of Reference

The current [terms of reference](#) were adopted in February 2015 and are set out on the CLP's and the Hong Kong Stock Exchange's websites. 

Looking Ahead

The expectations regarding the Group's climate action commitment will only get more demanding. The Committee will need to ensure that it is kept well updated of the development and trends at the international and regional level and of the stakeholders' feedback. A key focus for the Committee for the year ahead will be to continue to undertake a critical review of the Climate Vision 2050 and the targets including a review of current and emerging technologies that are expected to facilitate the energy transition.



Richard Lancaster

Chairman, Sustainability Committee

Hong Kong, 27 February 2023

Nomination Committee Report

Members


The Members of the Nomination Committee are appointed by CLP Holdings' Board of Directors. This Committee comprised the following Members during the reported period (full-year 2022 and for 2023 up to the date of this Report) (the Period):

Mr Nicholas C. Allen
(Independent Non-executive Director)
(the Chairman)

The Hon Sir Michael Kadoorie
(Non-executive Director)

Ms May Siew Boi Tan
(Independent Non-executive Director)

The Committee comprises a majority of Independent Non-executive Directors.

[Biographies](#) of the Members are set out in Board of Directors on page 100 and on our website. 

In addition to the Members, the regular attendees at the Committee's meeting include:

- > Chief Executive Officer – Mr Richard Lancaster;
- > Chief Strategy, Sustainability and Governance Officer – Mr David Simmonds; and
- > Joint Company Secretary – Mr Michael Ling.

Meetings and Attendance

The Committee meets as frequently as required and the Committee met once during the Period. Despite meeting only once during the Period, the Committee covered a good deal of work outside of the scheduled meeting as detailed below.

Highlights of the Committee's Work

The Committee considered and dealt with a number of important matters outside of the scheduled meeting. These included setting the desired profile for the potential candidate for an Independent Non-executive Director as well as the Members meeting and interviewing the then potential candidate of Mr Bernard Chan which led to the formal appointment. As part of the efforts to continuously refresh the Board, the Committee considered the retirement and succession of the Vice Chairman of the Board and the appointment of Mrs Betty Yuen as a Non-executive Director.

Summary of Work Done

In addition to the Highlights of the Committee's Work for the Period, the table below explains the work carried out by the Committee and how it discharged its responsibilities for the Period.

Areas of Focus	
Board nominations and Board refresh	<p>Appointment of Mr Bernard Chan as Independent Non-executive Director</p> <p>The Committee considered and endorsed the nomination of an additional Independent Non-executive Director for the Board's approval. The search process was conducted by Korn Ferry, an independent consulting firm.</p> <p>Mr Bernard Chan was considered the leading candidate having regard to his governmental relations in Hong Kong and China with over 20 years of experience working with senior officials of the Hong Kong Government.</p> <p>The Committee noted that Mr Chan has a strong commitment to public service and service on listed companies and he has had a commendable track record of high attendance rate for general meetings, board meetings and board committee meetings of the other listed companies of which he is a director. Prior to Mr Chan taking up CLP's appointment, he has stepped down as the Convenor of the Non-Official Members of the Executive Council of the previous HKSAR Administration and other ex-officio positions, this is expected to significantly reduce his level of commitment. In addition, Mr Chan has undertaken to devote sufficient time to attend to the affairs of the Company, the Committee is of the view that Mr Chan would be able to devote sufficient time to fulfill his duties as an Independent Non-executive Director of the Company, despite his directorship with CLP would be his seventh listed company directorship.</p> <p>Appointment of Mrs Betty Yuen as Non-executive Director and Mr Andrew Brandler as Vice Chairman of the Board</p> <p>With the retirement of Mr William Mocatta as the Vice Chairman of the Board on 31 December 2022, the Committee endorsed (i) the appointment of Mrs Betty Yuen as a Non-executive Director – she was formerly a Senior Management member of CLP and she joined Sir Elly Kadoorie & Sons Limited as Special Advisor in January 2023; and (ii) the appointment of Mr Andrew Brandler as the Vice Chairman of the Board, both with effect from 1 January 2023.</p> <p>As disclosed in the CLP Holdings announcement for Mrs Yuen's appointment, she was regarded as having extensive experience and understanding of the CLP Group's business, in particular, the strategic direction of the Group's electricity business in Hong Kong and Mainland China.</p>

Areas of Focus	
Board Committees refresh	<p>The Committee considered the evolving demands of the Board Committees and the changes in the Board composition in 2022. The Committee had due regard to the unique experience, expertise and background of the Directors concerned and the Committee reviewed and endorsed the following appointments for the relevant Board Committees for approval by the Board:</p> <ul style="list-style-type: none"> ➤ appointment of Mr Bernard Chan as a Member of the Sustainability Committee with effect from 18 October 2022; ➤ appointment of Mr Andrew Brandler as the Chairman of the Finance & General Committee in place of Mr William Mocatta with effect from 1 January 2023; ➤ appointment of Mr Chunyuan Gu as a Member of the Human Resources & Remuneration Committee to take effect from 28 February 2023; and ➤ appointment of Ms May Siew Boi Tan as the Chair of the Audit & Risk Committee to succeed Mr Nicholas C. Allen to take effect from 28 February 2023, with Mr Allen remaining as a Member. <p>Details of the Board Committees composition are set out in the Corporate Governance Report on page 124.</p>
Board Diversity Policy and diversity aspects of the Board	<p>The Committee considered the proposed numerical target for female directors on the CLP Holdings Board of not less than 30%, and such target will be reviewed annually. In recommending this proposal, the Committee took into account the following:</p> <ul style="list-style-type: none"> ➤ the female Directors' representation on the Board over the recent years; ➤ the proposed target that would be regarded as meaningful by reference to international standards; and ➤ the proposed target being reasonably achievable yet having the flexibility for the best candidate to be considered regardless of gender. <p>The Committee also considered management's findings on the annual review of the existing diversity aspects of the Board for 2022. It was noted that the continuous Board refresh exercise enhanced various aspects of the Board's diversity in terms of gender, length of service, age distribution, independence and alignment between the Group's strategic direction and Directors' skills and experience.</p> <p>Full analysis of the diversity aspects of the Board can be found in the Corporate Governance Report on pages 128 and 129.</p>
Regulatory-related	<p>The Committee undertook the review and assessment of the following regulatory-related matters:</p> <ul style="list-style-type: none"> ➤ the nomination of Directors for election and re-election at the 2023 AGM, with assessment on the tenure (especially for Independent Non-executive Directors who have served for more than nine years), time commitment, overboarding and cross-directorships or significant links of the Independent Non-executive Directors; ➤ the independence of Independent Non-executive Directors; ➤ the training and continuous professional development of Directors; and ➤ Directors' time commitment and the contribution required from Directors to discharge their responsibilities.

Responsibilities

Primary Responsibilities

The Committee's primary responsibilities include:

- > reviewing the Board structure and composition, and the Board Diversity Policy including the gender diversity target on an annual basis;
- > making recommendations to the Board on Directors appointment and re-appointment and succession planning;
- > assessing the implementation and effectiveness of the independence mechanism, the independence of the Independent Non-executive Directors and whether Directors are spending sufficient time performing their duties; and
- > reviewing and monitoring the training and continuous professional development of Directors.

Nomination Policy


Embedded in the Committee's terms of reference is the Nomination Policy for Directors. The Policy (set out below) stipulates the key nomination criteria and principles of the Company for the nomination of Directors and provides what the Committee should do in order to give effect to this Policy:

- 1 review and monitor the structure, size and composition (including the skills, knowledge, experience and diversity of perspectives) of the Board on an annual basis and make recommendations on any proposed changes to the Board to complement the Company's corporate strategy;
- 2 identify and nominate qualified individuals for appointment as additional Directors or to fill Board vacancies as and when they arise. The criteria to be adopted by the Board in considering each individual shall be their ability to contribute to the effective carrying out by the Board of its responsibilities set out in the CLP Code in particular those described in paragraphs II.B.36 and 37 of the Code;
- 3 make recommendations to the Board on the appointment or re-appointment of Directors and succession planning for Directors, in particular, the Chairman and the CEO; and
- 4 make recommendations to the Board with particular regard to ensuring a substantial majority of the Directors on the Board being independent of management.

Accountability

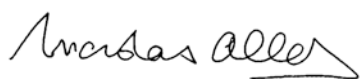
The Committee is accountable to the Board. The Committee is authorised by the Board to investigate all matters that fall within its terms of reference. The objectives of the Committee are to recommend to the Board on the structure, size and composition of the Board and on the nomination of Directors, having regard to the independence and quality of the nominees and ensuring that the nominations are fair and transparent.

Terms of Reference

The terms of reference of the Committee were recently amended in December 2022 to include the delegated authorities to review the implementation and effectiveness of the independence mechanism and the Board Diversity Policy and gender diversity targets annually. The latest [terms of reference](#) of the Committee are set out on the CLP's and the Hong Kong Stock Exchange's websites. 

Looking Ahead

The Board is committed to a gradual refresh of the Board composition, the Committee will continue to play a leading role in planning for the succession of the Board and Board Committees. The Committee recognises that Board position openings are valuable opportunities, and the Committee will ensure that the most appropriate candidate(s) will be nominated for appointment having regard to the strategic objectives and priorities of the Board as well as the diversity aspects of the Board.



Nicholas C. Allen

Chairman, Nomination Committee

Hong Kong, 27 February 2023

Human Resources & Remuneration Committee Report

Introduction

On behalf of the Board, the Human Resources & Remuneration Committee (HR&RC) scrutinises the remuneration policies applied within the CLP Group, including the remuneration of Non-executive Directors, and as delegated by the Board, the determination of the remuneration of the Executive Directors and of Senior Management. Our objective is to ensure that CLP applies properly structured and fair remuneration policies which align the interests of Directors and Senior Management with those of the Company and its shareholders. This Report explains the policies applied to determining remuneration levels and sets out the remuneration paid to Non-executive Directors, Executive Directors, and Senior Management. This Report covering the full-year 2022 and for 2023 up to the date of this Report (the Period) has been reviewed and approved by the HR&RC.

As stated in Note 32(C) to the Financial Statements on page 287, the following sections in the highlighted boxes below form part of the Financial Statements and have been audited by the Company's independent auditor:

- "Non-executive Directors – Remuneration in 2022";
- "Change of Remuneration – Executive Directors and Senior Management in 2022";
- "Executive Directors – Remuneration in 2022";
- "Total Directors' Remuneration in 2022";
- "Senior Management – Remuneration in 2022"; and
- "The Five Highest Paid Individuals in 2022".

Members

The Members of the HR&RC are appointed by CLP Holdings' Board of Directors. This Committee comprised the following Members during the Period:

Mr Nicholas C. Allen
(Independent
Non-executive Director)
(the Chairman)


Mrs Zia Mody
(Independent
Non-executive Director)

Mrs Fanny Law
(Independent
Non-executive Director)

Ms May Siew Boi Tan
(Independent
Non-executive Director)

Mr William Mocatta
(Non-executive
Vice Chairman)
(retired from CLP on
31 December 2022)

There is no Executive Director on the HR&RC and the HR&RC comprises Independent Non-executive Directors only after 31 December 2022.

[Biographies](#) of the Members are set out in Board of Directors on page 100 and on our website. 

In addition to the Members, the regular attendees at the HR&RC meetings include:

- > Chief Executive Officer – Mr Richard Lancaster;
- > Chief Human Resources Officer – Ms Eileen Burnett-Kant;
- > Chief Strategy, Sustainability and Governance Officer – Mr David Simmonds; and
- > Joint Company Secretary – Mr Michael Ling.

Meetings and Attendance

During the Period, the HR&RC held four meetings in 2022 and one meeting in 2023.

Highlights of the Committee's Work

Developing Organisation Capability to align with Business Strategy

A key focus of the Committee's work was on the implementation of the new operating model to support the Utility of the Future Vision.

The following table provides an overview of how the Committee spent its time during the Period:

	2022				2023
	Feb	Jul	Oct	Nov	Feb
Performance and Remuneration Policy and Review	●	●	●	●	●
Succession Planning and Talent Development		●	●	●	
People Strategy and Organisation Development	●	●			
Staff Policies and Benefits		●			
Governance	●			●	●

Responsibilities and Summary of Work Done

The HR&RC considers major human resources and pay issues. It also provides forward guidance on EnergyAustralia's remuneration policy through interactions between the HR&RC and the EnergyAustralia Nomination and Remuneration Committee.

In addition to the Highlights of the Committee's Work for the Period, the table below explains the work carried out by the HR&RC and how it discharged its responsibilities for the Period.

Areas of Focus	
Performance and Remuneration Policy and Review	
Remuneration review	<p>The Committee scrutinised and approved:</p> <ul style="list-style-type: none"> > Group performance for 2021 and 2022 and Group targets for 2022 and 2023; > 2021 and 2022 organisation performance for CLP Power, Mainland China and Apraava Energy, and targets for 2022 and 2023; > Base pay for 2022 and 2023 for Hong Kong payroll staff and Mainland China; and for Apraava Energy, base pay for 2022 only; > CEO's remuneration; and > Remuneration of direct reports to the CEO, including annual incentive payments for 2021 and 2022 and pay review for 2022 and 2023.
Performance management and remuneration policy	<p>The Committee reviewed and endorsed management's overall approach to align CLP's performance and remuneration policy for staff in Hong Kong and Mainland China with the delivery of the strategy. A refresh of the approach was agreed with a focus on rewarding collaboration, stronger alignment in goal setting to strategic priorities and desired future behaviours, greater differentiation, and improvement in line manager capability to provide more development-focused feedback.</p>

Areas of Focus

Succession Planning and Talent Development

Enterprise leadership succession	The Committee reviewed and endorsed the succession plan for the enterprise leadership team and reviewed the initiatives to accelerate the readiness and capability for the leadership team's succession.
Talent development	The Committee reviewed and considered management's proposed plans and initiatives in ensuring that CLP has the necessary talent and capability to support the corporate strategy.
Gender diversity and inclusion progress review	The Committee discussed the progress regarding gender diversity and inclusion. The Committee took note that management was continuing to make solid progress on workplace diversity, and this included the establishment of a Diversity & Inclusion Council.

People Strategy and Organisation Development

People strategy and organisation development	The Committee reviewed management's long-term plans and initiatives to enable the delivery of corporate strategy including a fit-for-purpose operating model and high-performance culture.
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Staff Policies and Benefits

Human resources policies	The Committee reviewed Human Resources Policies, and the key areas that have been strengthened, such as: health and wellbeing, family-friendly and flexible working, talent attraction and retention, and sustainability and governance.
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Governance

Training and professional development of Senior Management	The Committee considered the activities undertaken in 2021 and 2022 and the planned activities for 2022 and 2023 in respect of the training and continuous professional development of Senior Management.
Executive remuneration governance and disclosure	<p>The Committee reviewed and approved the 2021 and 2022 HR&RC Reports.</p> <p>The Committee took note of management's findings from their regular reviews on the governance and disclosure requirements for executive remuneration and the associated trends.</p>

Remuneration Policies

The main elements of CLP's remuneration policies have been in place for a number of years and are incorporated in the CLP Code:

- > no individual or any of his or her close associates should determine his or her own remuneration;
- > remuneration should be broadly aligned with companies with whom CLP competes for human resources; and
- > remuneration should reflect performance, complexity, and responsibility with a view to attracting, motivating, and retaining high performing individuals and promoting the enhancement of the value of the Company to its shareholders.

Non-executive Directors (NED) – Principles of Remuneration

How should NED be remunerated

- > Recognise that they are not employees
- > Sufficiently competitive to attract and retain high-calibre candidates
- > Should not be excessive

References include:

- > The Financial Reporting Council's "The UK Corporate Governance Code" last published in July 2018
- > The Corporate Governance Code and associated Listing Rules

Fees Review

- > No less than every three years
- > Latest independent review undertaken in 2022 (2022 Review)

Highlights of the 2022 Review:

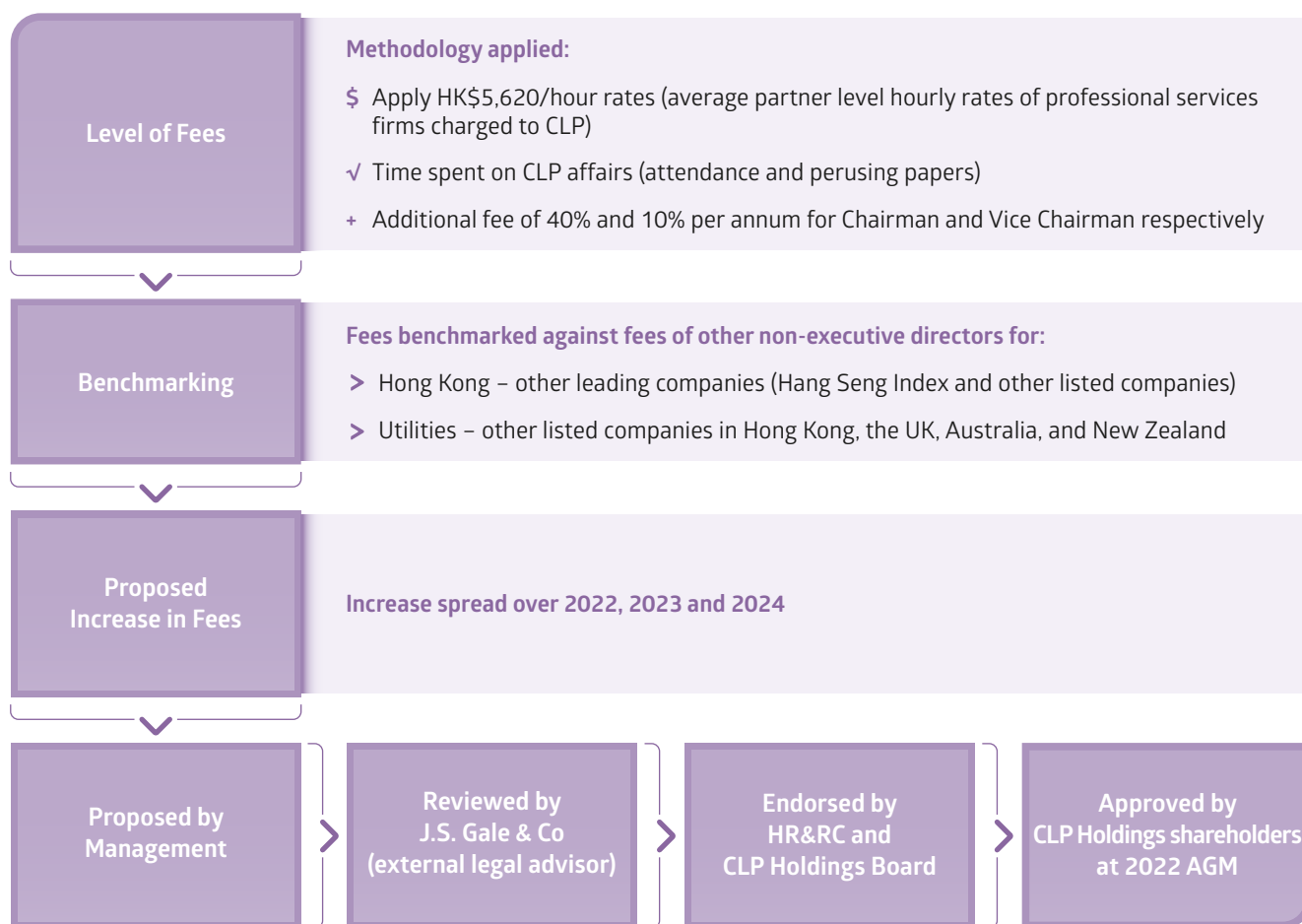
Methodology same as that used in the previous reviews, save for:

- > maintaining the fees for the Finance & General Committee unchanged although the indicative fees under the methodology showed slight reduction in fees; and
- > a nominal fee be maintained for the Provident & Retirement Fund Committee.

Approach

- > Over and above what is required by laws or regulations in Hong Kong or the provisions of the Corporate Governance Code

The 2022 Review and methodology applied are summarised as follows:



Fees for Non-executive Directors

	Fees per annum (before 7 May 2022) HK\$	Fees per annum (w.e.f. 7 May 2022) HK\$	Fees per annum (w.e.f. 7 May 2023) HK\$	Fees per annum (w.e.f. 7 May 2024) HK\$
Board				
Chairman	887,700	888,200	888,700	889,200
Vice Chairman	697,500	697,900	698,300	698,700
Non-executive Director	634,100	634,400	634,800	635,200
Audit & Risk Committee				
Chairman	673,100	688,200	703,700	719,500
Member	481,900	492,200	502,700	513,500
Finance & General Committee				
Chairman	449,900	449,900	449,900	449,900
Member	319,400	319,400	319,400	319,400
HR&RC				
Chairman	140,700	142,300	143,900	145,500
Member	99,800	101,300	102,800	104,300
Sustainability Committee				
Chairman	141,500	145,500	149,700	154,100
Member	101,900	104,400	107,000	109,600
Nomination Committee				
Chairman	40,200	41,100	42,100	43,100
Member	28,700	29,400	30,100	30,800
Provident & Retirement Fund Committee*				
Chairman	14,000	14,000	14,000	14,000
Member	10,000	10,000	10,000	10,000

* A nominal fee has been maintained for the Chairman and Members of the Provident & Retirement Fund Committee.

Note: Executive Director and management serving on the Board and Board Committees are not entitled to any Directors' fees.

● Non-executive Directors – Remuneration in 2022 (Audited)

The fees paid to each of our Non-executive Directors in 2022 for their service on the CLP Holdings' Board and, where applicable, on its Board Committees are set out below. Higher level of fees was paid to Chairmen of the Board and Board Committees and the Vice Chairman of the Board as indicated by (C) and (VC) respectively. Executive Director and management serving on the Board and Board Committees are not entitled to any Directors' fees.

There was a slight increase in total Directors' fees compared to 2021, primarily due to an increase in the level of Non-executive Directors' fees which took effect from 7 May 2022 and the appointment of an additional Independent Non-executive Director in October 2022.

In HK\$	Board	Audit & Risk Committee	Finance & General Committee	HR&RC	Sustainability Committee	Nomination Committee	Provident & Retirement Fund Committee	Total 2022	Total 2021
Non-executive Directors									
The Hon Sir Michael Kadoorie	888,027 ^(C)	-	-	-	-	29,158	-	917,185	898,691
Mr William Mocatta ¹	697,762 ^(VC)	-	449,900 ^(C)	100,782	-	-	14,000 ^(C)	1,262,444	1,244,699
Mr J.A.H. Leigh	634,296	-	-	-	-	-	-	634,296	623,571
Mr Andrew Brandler	634,296	-	319,400	-	103,537	-	-	1,057,233	1,042,006
Mr Philip Kadoorie	634,296	-	-	-	103,537	-	-	737,833	722,606
Independent Non-executive Directors									
Sir Rod Eddington	634,296	-	319,400	-	-	-	-	953,696	942,971
Mr Nicholas C. Allen	634,296	682,987 ^(C)	319,400	141,748 ^(C)	103,537	40,789 ^(C)	-	1,922,757	1,859,449
Mrs Fanny Law	634,296	488,644	-	100,782	103,537	-	-	1,327,259	1,281,005
Mrs Zia Mody	634,296	-	-	100,782	-	-	-	735,078	718,469
Ms May Siew Boi Tan	634,296	488,644	319,400	100,782	103,537	29,158	-	1,675,817	1,626,136
Ms Christina Gaw	634,296	-	319,400	-	103,537	-	-	1,057,233	1,042,006
Mr Chunyuan Gu	634,296	488,644	319,400	-	-	-	-	1,442,340	1,406,472
Mr Bernard Chan ²	130,356	-	-	-	21,452	-	-	151,808	-
							Total	13,874,979	13,408,081

Notes:

- Mr William Mocatta received HK\$300,000 as fee for his service on the board of CLP Power for each of 2021 and 2022. Mr Mocatta retired from the Board of CLP Holdings and the Board Committees that he served on 31 December 2022.
- Mr Bernard Chan was appointed as an Independent Non-executive Director and a Member of the Sustainability Committee with effect from 18 October 2022. The fees paid to Mr Chan in respect of his service were made on a pro rata basis from 18 October 2022.

● Change of Remuneration – Executive Directors and Senior Management in 2022 (Audited)

Details of the remuneration of Executive Directors and Senior Management prepared in accordance with the Hong Kong Financial Reporting Standards for the 12 months ended 31 December 2022 are set out in the tables on page 183 (Executive Directors) and pages 190 to 192 (Senior Management).

The amounts disclosed consist of remuneration accrued or paid for service in 2022 and, for the annual and long-term incentives, service, and performance in previous years.

The amounts disclosed are the amounts recognised in the financial year for accounting purposes, which do not necessarily reflect the cash actually received by the individual. Where payments are made to the individual over more than one financial year, this is explained in the notes.

To provide a clear picture of remuneration, amounts are shown as recurring or non-recurring items. Recurring items are the normal annual remuneration of Executive Directors and Senior Management while non-recurring items relate primarily to the appointment or termination of Executive Directors and Senior Management.

In the tables on page 183 and pages 190 and 191 the “Total Remuneration” column for 2022 includes the following recurring items:

- (i) base compensation, allowances & benefits paid;
- (ii) 2022 annual incentive accrued based on previous year’s Company performance and the 2021 annual incentive adjustment. The adjustment is the difference between the actual annual incentive paid in 2022 for 2021 performance and the annual incentive accrual for 2021;
- (iii) the 2019 long-term incentive award paid in January 2022 when the vesting conditions were satisfied (the comparative figures are the long-term incentive for 2018 paid in 2021). Approximately 2% of the decrease in the value of the phantom shares portion of 2019 long-term incentive payments resulted from the change in CLP Holdings’ share price between 2019 and 2021, with dividends reinvested; and
- (iv) provident fund contribution made.

The “Other Payments” column includes the approved acceleration of long-term incentive payments and any contractual termination payments for departed Executive Director and Senior Management members.

Performance Outcomes for the Year

In considering performance outcomes against the balanced scorecard of measures set for the 2022 performance year, the Committee reviewed progress made against a mix of financial, operational, safety, environmental, internal control and objectives reflecting strategic priorities and long-term sustainability.

In 2022, the Committee considered that while the majority of CLP’s business was solid and consistent with 2021, and progress was made on decarbonisation and strategy execution, nevertheless, performance in Australia was significantly below expectations and a large number of customers were affected by the cable bridge fire in Hong Kong. Having considered this, the Committee decided to award a reduced performance outcome for 2022, recognising that aspects of Group performance did not meet expectations and that overall responsibility for this rests with the CEO and Group Executives.

Executive Directors – Remuneration in 2022 (Audited)

The remuneration paid to the Executive Director of the Company in 2022 was as follows:

	Recurring Remuneration Items				Non-recurring Remuneration Items		Total HK\$M
	Base Compensation, Allowances & Benefits ¹ HK\$M	Annual Incentive HK\$M	Long-term Incentive HK\$M	Provident Fund Contribution HK\$M	Total Remuneration HK\$M	Other Payments HK\$M	
2022							
CEO (Mr Richard Lancaster)	10.7	8.7	5.7	2.7	27.8	-	27.8
	10.7	8.7	5.7	2.7	27.8	-	27.8
2021							
CEO (Mr Richard Lancaster)	10.4	9.4	5.4	2.7	27.9	-	27.9
Group Director & Chief Strategy & Transformation Officer (Mr Geert Peeters) ³	4.6	3.9	4.1	0.7	13.3	13.2	26.5
	15.0	13.3	9.5	3.4	41.2	13.2	54.4

Notes:

- The value of non-cash benefits is included under the "Base Compensation, Allowances & Benefits" column of the above table. The nature of these benefits includes electricity allowance, the availability of a company vehicle for personal use, life insurance and medical benefits. The applicability of these benefits depends primarily on the location of the individual.
- Performance Bonus consists of (a) annual incentive (2022 accrual and 2021 adjustment) and (b) long-term incentive (payment for 2019 award). The annual incentive payments and long-term incentive awards were approved by the HR&RC. Payment of the annual incentive and granting of the long-term incentive awards relating to 2022 performance will be made in March 2023. These payments and awards are subject to the prior approval of the HR&RC after 31 December 2022. [Details](#) of these will be published on the CLP website at the time that the 2022 Annual Report is published.
- Mr Geert Peeters was appointed as Group Director & Chief Strategy & Transformation Officer with effect from 1 April 2021. He stepped down as Executive Director of the Company with effect from 31 July 2021 and retired from the Company as Group Director & Chief Strategy & Transformation Officer and a member of the Senior Management on 31 August 2021 for health reasons. His remuneration covered the period from 1 January 2021 to 31 August 2021. The annual incentive for 2021 was made on a pro rata basis for his service up to 31 August 2021. The Other Payments of HK\$13.2 million included (a) accelerated payment of long-term incentive awards for 2019, 2020 and 2021 (HK\$12.6 million) and (b) encashment of untaken annual leave (HK\$0.6 million).

The Group does not have, and has never had, a share option scheme. No Executive Director has a service contract with the Company or any of its subsidiaries with a notice period in excess of six months or with provisions for predetermined compensation on termination which exceeds one year's salary and benefits in kind.

● Total Directors' Remuneration in 2022 (Audited)

The total remuneration of Non-executive and Executive Directors in 2022 was:

	2022 HK\$M	2021 HK\$M
Fees	13.9	13.4
Recurring Remuneration Items		
Base Compensation, Allowances & Benefits ¹	10.7	15.0
Performance Bonus ²		
– Annual Incentive	8.7	13.3
– Long-term Incentive	5.7	9.5
Provident Fund Contribution	2.7	3.4
Non-recurring Remuneration Items		
Other Payments	–	13.2
	41.7	67.8

Notes:

- 1 Refer to Note 1 on Base Compensation, Allowances & Benefits on page 183 for Executive Directors.
- 2 Refer to Note 2 on Performance Bonus on page 183 for Executive Directors.

Of the total remuneration paid to Directors, HK\$7.1 million (2021: HK\$10.2 million) has been charged to the SoC operation.

Linking Senior Management Pay with CLP's Purpose and Strategy

For the purposes of this section, Senior Management means the managers whose details are set out on pages 108 and 109.

CLP's Senior Management Remuneration Policy is an important element of the Group's strategy and an expression of our culture. Our Policy is designed to be **sustainable, aligned with shareholders and simple**. Delivery of a highly reliable supply of electricity today together with transforming our business into a Utility of the Future, is a commitment that requires long-term stewardship and a sustainable approach to remuneration. Ensuring fairness and internal equity; encouraging and rewarding appropriate behaviour while discouraging inappropriate behaviour; and balanced judgement of short- and long-term performance, aligned with shareholder outcomes, underpin this approach.

Fairness and internal equity are key elements of our approach. Depending on individual roles, Senior Management is responsible for a mix of businesses: a vertically integrated regulated business in Hong Kong, a customer-focused energy business in Australia, and an independent power producer in Mainland China, India, Southeast Asia, and Taiwan. We seek to fairly recognise the extent of Senior Management's assigned job responsibilities and capabilities demonstrated, and to ensure that our remuneration attracts, retains, and motivates a diverse, high-performing executive team. The structure of our executive remuneration packages is assessed in terms of appropriateness to the role, and with reference to both local and international markets. We emphasise strong management development, succession planning and job mobility to fill vacancies for executive positions as we believe that a long-term career with the Group is an important asset to CLP. Consequently, external competitiveness of remuneration must be balanced with internal equity. While Senior Management pay reflects the scale and scope of their responsibilities, our policy is designed to ensure that remuneration structure and outcomes are aligned with our wider workforce, whose skills, values, and commitment are essential to our success, and HR&RC decisions on executive pay outcomes are taken in the context of wider workforce considerations.

Senior Management pay is structured to seek to avoid excessive risk-taking in the achievement of performance targets and is governed by and compliant with relevant regulatory frameworks. In determining incentive payments and Total Remuneration, the HR&RC considers and balances a broad range of performance indicators including financial (e.g., long-term growth in the share price and dividends), operational, safety, environmental, social, business sustainability (including responding to climate change), governance and compliance-related factors linked to CLP's strategy. Decisions on pay reflect considerations of both **what** was achieved and **how** it was achieved. The determination of performance outcomes is not formulaic, as the HR&RC believes that their overriding responsibility is to exercise judgement and responsibility, ensuring alignment between shareholders and management.

CLP is committed to being simple and transparent in the way we do business. The HR&RC strives to keep remuneration arrangements simple, clear, and consistent to enable effective stakeholder scrutiny. We have maintained our Remuneration Policy in line with prior years in part on the belief that the current arrangements remain fit for purpose, are embedded into our business and are well understood both internally and externally. Mindful of continuing external interest and debate on executive pay, we have reshaped the structure of our reporting on Remuneration Policy in order that the links between policy, strategy and performance are more clearly and simply articulated.

Remuneration Policy

Executive Directors and Senior Management (excluding Managing Director – EnergyAustralia)

The illustration below summarises policy design and operation for members of Senior Management. The policy is set out in full on pages 185 to 189. The pay structure of Managing Director – EnergyAustralia is aligned with Australian market practice and is addressed on pages 188 and 189.

Remuneration Component	Fixed Pay	Annual Incentive Plan (AIP)	Long-Term Incentive (LTI)	Retirement Arrangements
Purpose	Attract and retain the capabilities needed to lead and sustain a multi-jurisdictional business in a complex operating environment, without over-paying.	Drive performance aligned to short- and long-term value creation considering both what was achieved and how it was achieved, while avoiding excessive risk-taking.	Drive long-term value creation, support retention of Senior Management and encourage an owner's mindset.	Provide market-competitive and sustainable retirement benefits.
Delivery	Base salary. Accounted for 34% of potential total remuneration in 2022.	Annual cash payment. Accounted for 34% of potential total remuneration in 2022.	A minimum of 75% of the award is delivered in phantom shares subject to a three-year vesting period. Up to 25% can be allocated to a notional cash deposit or to phantom shares. Accounted for 23% of potential total remuneration in 2022.	Employer and employee contributions to the Group Provident Fund Scheme (a Defined Contribution Scheme). A 17.5% contribution accounted for 9% of potential total remuneration in 2022.
Approach	Set with reference to local and international comparators, role scope and experience, and wider workforce considerations. Intent to align target Total Remuneration to between median and upper quartile of the reference market.	Balanced consideration by the HR&RC of a range of quantitative and qualitative performance measures including: WHAT was achieved <ul style="list-style-type: none"> > Financial and Operational performance HOW it was achieved <ul style="list-style-type: none"> > Safety, Environmental and Internal Control performance ADDITIONAL OBJECTIVES reflecting strategic priorities and long-term sustainability of CLP's business model, people, environmental impact, and community acceptance.		Set with reference to local and international comparators, wider workforce considerations and the cost to Company. Employer contribution rates for Senior Management are the same as for all employees.

Base Salary	
Purpose and link to strategy	To attract, motivate and retain capable Executives needed to lead and sustain a multi-jurisdictional business in a complex operating environment, without over-paying.
Operation	Base salaries are reviewed annually considering market data (including base pay and total remuneration opportunity for both local and international peer-group comparators, supplemented where necessary by peer data from published remuneration surveys) and the scope and responsibility of the role, including any changes in responsibility, individual skills, and experience. Changes are usually effective from 1 April each year.
Maximum opportunity and alignment with wider workforce	Ordinarily, base salary increases in percentage terms will be in line with, or less than, increases awarded to other CLP employees. Increases may be made above this level for circumstances such as a significant change in responsibility or progression due to recent appointment. The HR&RC's intention is to align total remuneration between the median and upper quartile of the reference market.
Performance measures	Not applicable.

Annual Incentive	
Purpose and link to strategy	To drive performance aligned to short- and long-term value creation considering both what was achieved and how it was achieved, while seeking to avoid excessive risk-taking in the achievement of performance targets.
Operation	AIP awards are determined by the HR&RC's assessment of organisational performance over each financial year. Awards are paid in cash in March following the relevant performance year. AIP awards for the CEO and Hong Kong based members of Senior Management are based on the performance of the CLP Group. For the Managing Director – India awards are based on India performance.
Maximum opportunity and alignment with wider workforce	Each member of Senior Management has a maximum annual incentive opportunity of 100% of base salary. Half of the maximum is payable for target performance. The maximum annual incentive opportunity may be exceeded in exceptional cases where a discretionary additional annual incentive is awarded by the HR&RC. All employees are eligible to participate in the AIP with target AIP percentage calculated as a percentage of base salary.

Annual Incentive

<p>Performance measures</p>	<p>In assessing organisational performance, the HR&RC considers a balanced scorecard of measures. Given the scale and complexity of our business operations, there are many such measures, including both quantitative and qualitative factors. There is not a formulaic mathematical determination of performance, rather it is a balanced judgement by the HR&RC taking all relevant factors into account. In reaching their decision, the HR&RC considers:</p> <p>WHAT was achieved</p> <ul style="list-style-type: none"> > Financial and Operational performance: Operating EPS, Operating Earnings, Return on Equity, Asset Performance and Customer Minutes Lost <p>HOW it was achieved</p> <ul style="list-style-type: none"> > Safety performance: Fatalities, Lost Time Injury and Total Recordable Injury Rates > Climate risk stewardship: progress in meeting science-based greenhouse gas emissions intensity targets and phasing out coal-based assets, as set out in Climate Vision 2050 > Stewardship of other sustainability risks including the social and economic impacts of energy transition, health and wellbeing, and diversity and inclusion > Internal Control: number of Not Satisfactory Audits and Code of Conduct cases <p>ADDITIONAL OBJECTIVES reflecting strategic priorities and long-term sustainability of the organisation in relation to five dimensions: customer and community engagement, business model, asset development, digitalisation, and culture and ways of working.</p>
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Long-Term Incentive

<p>Purpose and link to strategy</p>	<p>To drive long-term business value creation, aligning Senior Management incentives to key strategic objectives, support Senior Management retention and to encourage an owner's mindset.</p>
<p>Operation</p>	<p>LTI awards are based on the target LTI opportunity (50% of the maximum opportunity) set at the beginning of the year, multiplied by the organisational performance score for the preceding year. A minimum of 75% of the award is allocated to CLP Holdings phantom shares based on the average closing share price for the December prior to the making of the LTI award. At the individual's choice, up to 25% of the award can be allocated to either a notional cash deposit or to CLP Holdings phantom shares. Payment is subject to a three-year vesting period.</p>
<p>Maximum opportunity and alignment with wider workforce</p>	<p>Each member of Senior Management has a maximum LTI opportunity of 66.6% of base salary. The final value of the award at the vesting date is determined based on initial allocation choices made and the subsequent impact of changes in share price, dividend reinvestment, exchange rate movements and interest earned over the three-year vesting period. Participation in the LTI Plan applies to Senior Management and other senior roles.</p>
<p>Performance measures</p>	<p>As per the AIP.</p>

Retirement Benefits	
Purpose and link to strategy	To provide market-competitive and sustainable retirement benefits, supporting attraction and retention.
Operation	<p>The Group Provident Fund Scheme is a Defined Contribution scheme which all members of Senior Management and Hong Kong based employees are eligible to join.</p> <p>Employer contributions to the retirement fund range from 10-17.5% of Base Salary plus target annual incentive.</p>
Maximum opportunity and alignment with wider workforce	To receive the maximum 17.5% employer contribution, employees must have completed 10 or more years of service and are required to contribute 10% of their Base Salary. Employer contribution rates are the same for all employees.
Performance measures	Not applicable.

Managing Director – EnergyAustralia

Base Salary	
Purpose and link to strategy	To reflect responsibility and complexity of the role, the skills and experience of the individual and to support the attraction and retention of Executives to develop and deliver our strategy.
Operation	Fixed Annual Remuneration (FAR) includes base salary and employer contribution to the Australian statutory superannuation scheme. FAR is reviewed annually taking into consideration the competitive market position compared to peer companies, a range of listed companies with market capitalisation of 50% to 200% of EnergyAustralia's notional market capitalisation, market practice and individual performance. FAR accounted for 29% of Managing Director – EnergyAustralia (MD-EA)'s potential total remuneration in 2022.
Maximum opportunity and alignment with wider workforce	Ordinarily, FAR increases in percentage terms will be in line with or less than increases awarded to other EnergyAustralia employees.
Performance measures	Not applicable.

Short-Term Incentive	
Purpose and link to strategy	To reward individuals' performance based upon achievement of annual financial and operational targets which are linked to EnergyAustralia's strategy. This ensures that total remuneration received is consistent with organisation performance for which management can be held to account. Deferral of incentives facilitates clawback.
Operation	<p>The EnergyAustralia Board determines the level of incentive at its absolute discretion considering key financial, operational, and strategic performance indicators.</p> <p>Performance is assessed over a financial year. The actual payout of Mr Collette's annual incentive in 2022 is approved by the Board of EnergyAustralia. 50% of the short-term Incentive (STI) award is paid in cash annually, with 50% deferred for one year.</p>
Maximum opportunity and alignment with wider workforce	Maximum annual incentive opportunity is 150% of FAR which accounted for 43% of MD-EA's potential total remuneration in 2022. 100% of FAR is payable for on-target performance. All salaried employees are eligible to participate in the STI with target percentage calculated as a percentage of FAR.
Performance measures	STI awards are based on a mix of the corporate scorecard and specific Managing Director-level objectives related to the strategic performance of business. 60% of the STI is based on corporate performance and 40% on priorities set for the business.

Long-Term Incentive	
Purpose and link to strategy	To drive long-term business performance aligning Senior Management incentives to key strategic objectives and to achieve long-term value creation for shareholders.
Operation	<p>LTI awards are based on performance over a three-year performance period. The EnergyAustralia Board determines the final value of LTI awards depending on the achievement of the LTI Performance Conditions.</p> <p>Upon determination of the Final Award Value, 100% of that value (subject to the discretion of the Nomination and Remuneration Committee of EnergyAustralia) will be paid on the vesting date in the fourth year. A minimum of 50% of the Award must be taken in Notional Securities, with the balance taken as deferred cash.</p> <p>Notional Securities entitles the holder to receive a cash payment based on the value of CLP Holdings fully paid ordinary shares at the time of vesting, ensuring linkage between EnergyAustralia and CLP performance. At the absolute discretion of the EnergyAustralia Board, subject to applicable laws, the Board may require MD-EA to repay a sum equal to the cash amount paid to him / her.</p>
Maximum opportunity and alignment with wider workforce	Maximum LTI opportunity is equal to 100% of FAR which accounted for 28% of MD-EA's potential total remuneration in 2022. 50% of FAR is payable for on-target performance. The final value of the award at the vesting date is based on the subsequent impact of changes in share price. Participation in the LTI Plan applies to senior and selected other roles.
Performance measures	The LTI award is decided by the EnergyAustralia Board, depending on the achievement of LTI Performance Conditions.

● Senior Management – Remuneration in 2022 (Audited)

Details of the remuneration of the Senior Management are set out below (except for the Executive Directors, that are set out in “Executive Directors – Remuneration in 2022”).

	Recurring Remuneration Items				Non-recurring Remuneration Items		
	Base Compensation, Allowances & Benefits ¹ HK\$M	Performance Bonus ²		Provident Fund Contribution HK\$M	Total Remuneration HK\$M	Other Payments HK\$M	Total HK\$M
		Annual Incentive HK\$M	Long-term Incentive HK\$M				
2022							
Current:							
Chief Financial Officer (Mr Nicolas Tissot)	6.7	5.9	-	1.2	13.8	-	13.8
Chief Operating Officer (Mr Derek Parkin) ³	1.9	1.6	-	0.4	3.9	-	3.9
Group Director & Vice Chairman – CLP Power (Mrs Betty Yuen) ⁴	5.1	4.1	2.6	1.3	13.1	6.7	19.8
Managing Director – CLP Power (Mr T.K. Chiang)	6.1	4.8	3.1	1.5	15.5	-	15.5
Managing Director – China (Mr Joseph Law) ⁵	2.7	2.2	-	0.7	5.6	-	5.6
Managing Director – EnergyAustralia (Mr Mark Collette) ⁶	6.9	0.5	2.1	0.1	9.6	-	9.6
Managing Director – India (Mr Rajiv Mishra) ⁷	4.1	3.5	2.1	1.0	10.7	-	10.7
Chief Strategy, Sustainability & Governance Officer (Mr David Simmonds)	5.9	4.6	3.0	1.5	15.0	-	15.0
Chief Corporate Development Officer (Ms Quince Chong)	5.8	4.6	3.0	1.4	14.8	-	14.8
Chief Human Resources Officer (Ms Eileen Burnett-Kant)	5.1	4.1	0.5	0.9	10.6	-	10.6
Former:							
Managing Director – China (Mr Chan Siu Hung) ⁸	1.2	0.9	2.5	0.3	4.9	8.5	13.4
Total	51.5	36.8	18.9	10.3	117.5	15.2	132.7

The notes are set out on page 192.

Of the total remuneration paid to Senior Management, HK\$52.1 million (2021: HK\$47.5 million) has been charged to the SoC operation.

● Senior Management – Remuneration in 2022 (Audited) (continued)

	Recurring Remuneration Items				Non-recurring Remuneration Items		
	Base Compensation, Allowances & Benefits ¹ HK\$M	Performance Bonus ²		Provident Fund Contribution HK\$M	Total Remuneration HK\$M	Other Payments HK\$M	Total HK\$M
		Annual Incentive HK\$M	Long-term Incentive HK\$M				
2021							
Current:							
Chief Financial Officer ⁹	4.8	4.1	-	0.9	9.8	-	9.8
Group Director & Vice Chairman – CLP Power ⁴	4.9	4.4	2.6	1.2	13.1	-	13.1
Managing Director – CLP Power	5.8	5.3	3.0	1.5	15.6	-	15.6
Managing Director – China ⁸	4.8	4.3	2.5	1.2	12.8	-	12.8
Managing Director – EnergyAustralia ⁶	3.6	3.7	-	0.1	7.4	-	7.4
Managing Director – India ⁷	4.2	3.3	2.1	1.1	10.7	-	10.7
Group General Counsel & Chief Administrative Officer (Mr David Simmonds)	5.7	5.1	2.9	1.4	15.1	-	15.1
Chief Corporate Development Officer	5.6	5.1	2.9	1.2	14.8	-	14.8
Chief Human Resources Officer ¹⁰	4.9	4.4	-	0.8	10.1	0.2	10.3
Former:							
Chief Operating Officer (Mr David Smales) ¹¹	5.3	4.8	-	1.0	11.1	9.8	20.9
Managing Director – EnergyAustralia (Ms Catherine Tanna) ¹²	8.0	9.5	9.3	0.1	26.9	1.2	28.1
Total	57.6	54.0	25.3	10.5	147.4	11.2	158.6

The notes are set out on page 192.

● Senior Management – Remuneration in 2022 (Audited) (continued)

Notes:

- 1 Refer to Note 1 on Base Compensation, Allowances & Benefits on page 183.
- 2 Refer to Note 2 on Performance Bonus on page 183. For MD-EA, the annual incentive payment was approved by the Board of EnergyAustralia following consultation between the CEO, the Chairman of the EnergyAustralia Nomination and Remuneration Committee and Members of the HR&RC.
- 3 Mr Derek Parkin was appointed as Chief Operating Officer and has become a member of Senior Management with effect from 1 September 2022. His remuneration covered the period from 1 September 2022 to 31 December 2022.
- 4 Mrs Betty Yuen retired as Group Director & Vice Chairman – CLP Power on 31 December 2022. The Other Payments of HK\$6.7 million included accelerated payment of long-term incentive for 2020, 2021 and 2022. Her annual incentive for 2022 will be paid in March 2023 based on the 2022 performance outcome approved by the HR&RC in February 2023 in line with the standard payout timeline.
- 5 Mr Joseph Law was appointed as Managing Director – China and has become a member of Senior Management with effect from 1 April 2022. His remuneration covered the period from 1 April 2022 to 31 December 2022.
- 6 Mr Mark Collette was appointed as Managing Director – EnergyAustralia with effect from 1 July 2021. For year 2021, his remuneration covered the period from 1 July 2021 to 31 December 2021. The remuneration of Mr Mark Collette is denominated in Australian dollars. The month end exchange rates prevailing at the month of payment were adopted for conversion to Hong Kong dollars.
- 7 The remuneration of Mr Rajiv Mishra is denominated in Indian Rupees. There is a temporary currency relief arrangement for Mr Rajiv Mishra where 50% of his base salary and annual incentive payment in Rupees were converted to pay in Hong Kong dollars at an exchange rate of 1 HKD = 8.9 Rupees from 1 October 2019 to 30 September 2021. The arrangement has been extended for two years from 1 October 2021 to 30 September 2023 at an exchange rate of 1 HKD = 9.5 Rupees. For the remaining payments in Rupees, the month end exchange rates prevailing at the month of payment were adopted for conversion to Hong Kong dollars.
- 8 Mr Chan Siu Hung retired as Managing Director – China on 31 March 2022. The annual incentive for 2022 was made on a pro rata basis for his service up to 31 March 2022. The Other Payments of HK\$8.5 million included (a) accelerated payment of long-term incentive for 2020, 2021 and 2022 (HK\$8.4 million) and (b) encashment of untaken annual leave (HK\$0.1 million).
- 9 Mr Nicolas Tissot was appointed as Chief Financial Officer and has become a member of Senior Management with effect from 1 April 2021. His remuneration covered the period from 1 April 2021 to 31 December 2021.
- 10 Ms Eileen Burnett-Kant joined the Company on 3 September 2019. The Other Payments reflected the relocation payments of HK\$0.2 million paid in 2021.
- 11 Mr David Smales left the Company on 10 December 2021. The annual incentive for 2021 was made on a pro rata basis for his service up to 10 December 2021. The Other Payments of HK\$9.8 million included (a) accelerated payment of long-term incentive awards for 2019, 2020 and pro-rated 2021 (HK\$6.7 million), (b) encashment of untaken annual leave (HK\$0.4 million) and (c) payment-in-lieu of notice (HK\$2.7 million).
- 12 Ms Catherine Tanna stepped down as Managing Director – EnergyAustralia with effect from 1 July 2021 and retired on 13 August 2021. Her remuneration covered the period from 1 January 2021 to 13 August 2021. The Other Payments of HK\$1.2 million included encashment of untaken annual leave and long service leave. The long-term incentive awards for 2019, 2020 and 2021 are unvested subject to the EA LTI plan scheme rules. The remuneration of Ms Catherine Tanna is denominated in Australian dollars. The month end exchange rates prevailing at the month of payment were adopted for conversion to Hong Kong dollars.

● The Five Highest Paid Individuals in 2022 (Audited)

The five highest paid individuals in the Group included one Director (2021: two Directors) and four members of Senior Management (2021: three members of Senior Management). The total remuneration of the five highest paid individuals in the Group is shown below:

	2022 HK\$M	2021 HK\$M
Recurring Remuneration Items		
Base Compensation, Allowances & Benefits ¹	33.6	34.1
Performance Bonus ²		
– Annual Incentive	26.8	32.9
– Long-term Incentive	17.4	21.8
Provident Fund Contribution	8.4	6.0
Non-recurring Remuneration Items		
Other Payments	6.7	24.2
	92.9	119.0

Notes:

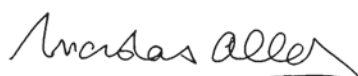
- 1 Refer to Note 1 on Base Compensation, Allowances & Benefits on page 183.
- 2 Refer to Note 2 on Performance Bonus on page 183.

The remuneration paid to these five individuals is within the following bands:

	Number of Individuals	
	2022	2021
HK\$14,500,001 – HK\$15,000,000	2	–
HK\$15,000,001 – HK\$15,500,000	1	–
HK\$15,500,001 – HK\$16,000,000	–	1
HK\$19,500,001 – HK\$20,000,000	1	–
HK\$20,500,001 – HK\$21,000,000	–	1
HK\$26,000,001 – HK\$26,500,000	–	1
HK\$27,500,001 – HK\$28,000,000	1	1
HK\$28,000,001 – HK\$28,500,000	–	1

Looking Ahead

The HR&RC remains committed to its core functions of the oversight of remuneration policies and levels as well as the work on succession planning and shaping the organisation's culture. The Committee acknowledges that management will continue to work on the plan to transition and transform the organisation and this will also be a key focus of the Committee.



Nicholas C. Allen

Chairman, Human Resources & Remuneration Committee
Hong Kong, 27 February 2023

Directors' Report

The Directors have pleasure in submitting their Report together with the audited Financial Statements for the year ended 31 December 2022.

Principal Activities

The principal activity of the Company is investment holding and those of its subsidiaries are the generation and supply of electricity. The Company's principal subsidiary companies are listed under Note 34 to the Financial Statements.

Consolidated Financial Statements

The consolidated Financial Statements incorporate the Financial Statements of the Company and its subsidiaries (collectively referred to as the Group) together with the

Group's interests in joint ventures and associates. Details of the joint ventures and associates are provided under Notes 14 and 15 to the Financial Statements.

Earnings and Dividends

The earnings of the Group for the year are set out under the consolidated statement of profit or loss.

The Directors have declared and paid the first to third interim dividends of HK\$1.89 (2021: HK\$1.89) per share totalling HK\$4,775 million (2021: HK\$4,775 million) during the year.

On 27 February 2023, the Directors declared the fourth interim dividend of HK\$1.21 (2021: HK\$1.21) per share totalling HK\$3,057 million (2021: HK\$3,057 million).

This fourth interim dividend will be paid on 23 March 2023.

Business Review and Performance

Summary of the Review

Discussions on the Group's businesses and performance can be found throughout this Annual Report and the cross references are set out below. These discussions form part of this Directors' Report.

Topics	Sections
1 A fair review of the business of the Group and a discussion and analysis of the Group's performance during the year and the material factors underlying its results and financial position, including analysis using financial key performance indicators	<ul style="list-style-type: none">> Financial Highlights (page 7)> Chairman's Statement (page 12)> CEO's Strategic Review (page 16)> Financial Review (page 24)> Business Performance and Outlook (page 38)> Stakeholders (page 66)
2 Description of the principal risks and uncertainties facing the Group	<ul style="list-style-type: none">> Risk Management Report (page 143)> Financial Risk Management (page 291)
3 Particulars of important events affecting the Group that have occurred since the end of the 2022 financial year	<ul style="list-style-type: none">> Chairman's Statement (page 12)> CEO's Strategic Review (page 16)> Business Performance and Outlook (page 38)> Stakeholders (page 66)
4 Outlook of the Group's business	<ul style="list-style-type: none">> Chairman's Statement (page 12)> CEO's Strategic Review (page 16)> Business Performance and Outlook (page 38)
5 An account of the Group's relationships with its key stakeholders	<ul style="list-style-type: none">> Chairman's Statement (page 12)> CEO's Strategic Review (page 16)> Business Performance and Outlook (page 38)> Stakeholders (page 66)
6 Details regarding the Group's performance by reference to environmental and social-related key performance indicators and policies, as well as compliance with relevant laws and regulations which have a significant impact on the Group	<ul style="list-style-type: none">> Chairman's Statement (page 12)> CEO's Strategic Review (page 16)> Business Performance and Outlook (page 38)> Stakeholders (page 66)> Governance (page 98)> Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data (page 310)

Board's Statement on ESG

The following is a statement from the Board of Directors explaining the Board's oversight of ESG issues and how CLP approaches the management of ESG issues.

Governance structure

The CLP Board has overall responsibility for CLP's ESG reporting and sustainability, and governance of sustainability is integrated into our corporate governance structure throughout the Group. The Sustainability Committee plays a primary role in overseeing the management of the Group's sustainability issues with a strong focus on the impact of longer-term sustainability issues on the Group's business strategy; climate change developments and our own climate action being high on the Committee's priorities. The Sustainability Committee, as a Board Committee, is supported by the Sustainability Executive Committee and coordinated through the Group Sustainability Department. The Audit & Risk Committee retains oversight of material ESG risks and assurance of the ESG data. For further details on the governance structure, please refer to page 116 of the Corporate Governance Report on "CLP's Approach to ESG Reporting".

How does CLP approach and manage material ESG issues?

CLP regularly reviews its strategic priorities against ESG risks and opportunities to ensure they remain fit-for-purpose. In 2022, whilst the global community was still navigating through the COVID-19 challenges, the world was faced with an energy crisis fueled by the war in Ukraine. This had a profound impact on fuel sourcing and prices and our business and our ESG stakeholders were not immune to this, especially our customers. These events demonstrate that ESG issues are not static, can have impacts both in the short term and over the long run and they underscore the importance of regular reviews of strategic priorities.

In 2022, CLP continues to adopt the double materiality concept and further enhanced the assessment methodology for identifying and assessing material impact and financially material ESG issues, risks and opportunities. This is based on best practice from global reporting standard setters and allows CLP to better reflect ESG risks and opportunities in its business strategy, to have a more comprehensive response to stakeholders' needs, and to ensure full transparency in our reporting. The materiality results were categorised as:

- Financially material topics, which potentially create or erode enterprise value, are covered in this Annual Report and are for reporting purposes under the ESG Reporting Guide. The key audience is providers of financial capital.
- Impact material ESG topics, which reflect significant positive or negative impacts on people, the environment and the economy, are covered in the [Sustainability Report](#). They address the concerns of a diverse range of stakeholders, including customers, people, partners and community, who are interested in CLP's positive and negative contributions to sustainable development. 🌱

A key outcome of the process was the prioritisation of five financially material topics and four impact material topics. The CLP Sustainability Executive Committee considered the financially material topics to be most likely to create or erode enterprise value. These five topics are: (i) shaping and executing the transition to net zero; (ii) bolstering energy security and reliability; (iii) pursuing energy growth opportunities in our core markets; (iv) building an agile and innovative workforce; and (v) reinforcing resilience in a changing operating environment. Further details can be found in Sustainability as Our Business Strategy on page 22.

The assessment process was enhanced with feedback from an external expert group including global standards setters, investors, and well-recognised governance and sustainability organisations. The ESG impacts, risks and opportunities were identified and assessed via megatrends analysis, stakeholder interviews, CLP's top tier risk list, and analysis results from an AI-driven ESG materiality assessment tool. The materiality results were then presented to the Sustainability Committee for their analysis and endorsement. For further details on how other ESG material topics are addressed by the Sustainability Committee, please see the Sustainability Committee Report on page 164.

Climate Vision 2050

Climate change remains one of the material topics and our Climate Vision 2050 publication is a pledge from CLP on our climate action which sets out clear climate-related targets for the Group. In 2022, CLP took further steps to ensure that we remain on track to meet our Climate Vision 2050 targets as outlined extensively in this Annual Report, the [Sustainability Report](#) and the [Climate-related Disclosures Report](#). The divestment of our entire interest in the Fangchenggang coal-fired plant being a key one. 🌱🍊

The Board recognises that climate change is one of the most material risks to CLP's business and will continue to provide oversight to ensure that the Group acts in a responsible manner and will be able to pursue the opportunities that may arise from the energy transition.

Share Capital

There was no movement in the share capital of the Company during the year. There was no purchase, sale or redemption by the Company, or any of its subsidiaries, of the Company's listed shares during the year.

Reserves

Distributable reserves of the Company amounted to HK\$22,052 million as at 31 December 2022 (2021: HK\$23,671 million).

Bank Loans and Other Borrowings

The total borrowings (including debentures) of the Group as at 31 December 2022 amounted to HK\$59,217 million (2021: HK\$58,215 million). Particulars of borrowings are set out in Note 23 to the Financial Statements and on pages 69 to 76 of the Capital Providers.

Financial Assistance and Guarantees to Affiliated Companies

The financial assistance given to affiliated companies and the guarantees given for facilities granted to affiliated companies aggregated to 0.9% of the Group's total assets as at 31 December 2022.


Equity-linked Agreements

For the year ended 31 December 2022, the Company did not enter into any equity-linked agreement.

Donations

Donations by the Group for charitable and other purposes amounted to HK\$10,017,000 (2021: HK\$15,085,000).

Five-year Summary

A summary of the results for the year and of the assets and liabilities of the Group as at 31 December 2022 and for the previous four financial years are on page 308. A [ten-year summary](#) is on the CLP website. 

Senior Management

The biographical details of the Senior Management as at the date of this Report are set out on pages 108 and 109. Details of their remuneration are set out in the Human Resources & Remuneration Committee Report on page 175.

Major Customers and Suppliers

Sales to the Group's five largest customers together represented less than 30% of the Group's total turnover during the year. Purchases from the Group's five largest suppliers, in aggregate, accounted for 54.81% of the Group's total purchases during the year and a breakdown of the purchases (as a percentage of the Group's total purchases) from each of the five largest suppliers are set out below in descending order:

- 1 24.87% from Australian Energy Market Operator (AEMO) in which the Group has no economic interest. AEMO is the administrator and operator of the Australian energy market, from whom electricity is bought to supply EnergyAustralia group customers and to whom electricity is sold from EnergyAustralia group generators (as market participants, EnergyAustralia group entities are members of AEMO but do not hold any economic interest in AEMO).
- 2 9.12% from PetroChina International South China Co., Ltd. (PCISC) in which the Group has no interest. CAPCO purchases natural gas from PCISC for its electricity generation.
- 3 8.83% from Guangdong Nuclear Power Joint Venture Company, Limited (GNPJVC) which is 25% owned by the Group. GNPJVC owns Guangdong Daya Bay Nuclear Power Station (GNPS), and CLP Power, a wholly-owned subsidiary of the Company and the largest electricity supplier in Hong Kong, purchases 80% of GNPS's output for supply of electricity to its customers in Hong Kong.
- 4 7.87% from CNOOC China Limited (CNOOC) in which the Group has no interest. CAPCO purchases natural gas from CNOOC for its electricity generation.
- 5 4.12% from Ausgrid Operator Partnership (Ausgrid) in which the Group has no interest. EnergyAustralia pays the distribution charges to Ausgrid which owns and operates the electricity distribution network that provides services to customers located in Sydney, the Central Coast and Hunter regions of New South Wales.

As at 31 December 2022, none of the Directors, their close associates or substantial shareholders of the Company had any interest in those suppliers other than their indirect interests in GNPJVC, which interests arose from the Group's interest in GNPJVC and the Group's approximate 0.28% shareholding interest in CGN Power Co., Ltd. (the listed entity of which GNPJVC is a subsidiary).

Directors

As at the date of this Report, the Directors of the Company together with their biographical details are set out on pages 100 to 107 of this Annual Report. With the exception of Mr Bernard Chan who was appointed in October 2022, the Directors held their office for the whole year ended 31 December 2022. Details of Directors' remuneration are set out in the Human Resources & Remuneration Committee Report on page 175.

Mr William Mocatta who has been a Non-executive Director of the Company since 1993, retired as a Non-executive Director and Vice Chairman on 31 December 2022.

Mr Mocatta confirmed that he had no disagreement with the Board and that he was not aware of any matter in relation to his retirement that should be brought to the attention of the shareholders of the Company.

Mr Bernard Chan was appointed as an Independent Non-executive Director of the Company with effect from 18 October 2022 while Mrs Betty Yuen was appointed as a Non-executive Director of the Company with effect from 1 January 2023.

Under the Company's Articles of Association, Directors are subject to retirement by rotation and re-election at the AGM. In accordance with Article 125 of the Company's Articles of Association, Mr Bernard Chan and Mrs Betty Yuen, appointed in October 2022 and January 2023 respectively, will retire at the 2023 AGM. In accordance with Article 119 of the Company's Articles of Association, The Hon Sir Michael Kadoorie, Mr Andrew Brandler, Mr J.A.H. Leigh, Mr Nicholas C. Allen and Mrs Fanny Law will retire by rotation at the 2023 AGM.

Mrs Fanny Law has informed the Company that she will not stand for re-election as a Director at the 2023 AGM to make way for future appointments of new independent directors who would bring fresh ideas to the Board. Accordingly, at the conclusion of the 2023 AGM, she will retire from the CLP Holdings Board and the Board Committees on which she serves. Mrs Law has confirmed that she has no disagreement with the Board and that she was not aware of any matter in relation to her retirement that needs to be brought to the attention of the shareholders of the Company.

All the other retiring Directors, being eligible, offer themselves for election or re-election. None of the Directors offering themselves for election or re-election at the 2023 AGM has a service contract with the Company which is not determinable by the Company within one year without payment of compensation.

Directors' Interests in Transactions, Arrangements or Contracts


During the year ended 31 December 2022, none of the Directors or his / her connected entity had directly or

indirectly any material interest in transactions, arrangements or contracts of significance entered into by the Group.

Alternate Director

Mr Andrew Brandler was alternate to Mr William Mocatta during the year ended 31 December 2022. He ceased to be alternate to Mr Mocatta upon Mr Mocatta's retirement from the Board on 31 December 2022.

Directors of Subsidiaries

The [names of all directors who have served on the boards of the subsidiaries of the Company](#) during the reported period (full-year 2022 and for 2023 up to the date of this Report) (the Period) are available on the CLP website. 

Permitted Indemnity Provisions

During the Period, the Company has in force indemnity provisions as permitted under the relevant statutes for the benefit of the Directors (including former Directors) of the Company or its associated companies. The permitted indemnity provisions are provided for in the Company's Articles of Association and in the Group-wide directors and officers liability insurance maintained by the Company in respect of potential liability and costs associated with legal proceedings that may be brought against the Directors of the Company.

Continuing Connected Transactions

China Southern Power Grid International (HK) Co., Limited (CSG HK), a subsidiary of China Southern Power Grid Co., Ltd. (CSG, and with its subsidiaries, collectively, the CSG Group), and effectively the CSG Group, is a connected person of CLP Holdings (at the subsidiary level) by virtue of CSG HK being a substantial shareholder of CAPCO, a subsidiary of CLP Holdings. Accordingly, ongoing transactions entered into between members of the CSG Group and members of the CLP Group constitute continuing connected transactions (CCTs) for CLP Holdings under Chapter 14A of the Listing Rules.

Under the Listing Rules, the Group's CCTs relating to the power purchase arrangements with the CSG Group are required to be subject to an annual aggregate cap determined by the Company, and for 2022, this was HK\$1,771 million. The annual aggregate cap was approved by the Board of Directors in December 2021 and subsequently disclosed in the announcement dated 3 January 2022. The project level caps of the CCTs for 2022 set out in the table on pages 198 to 211 are for reference only and were used to derive the annual aggregate cap of HK\$1,771 million.

Other details of the CCTs, which are required to be disclosed pursuant to Rules 14A.49 and 14A.71 of the Listing Rules, are also set out in the same table. The considerations for 2022, unless otherwise stated, represented the actual transaction values of the relevant CCTs in the full twelve months of 2022.

Name, date and term of the agreement		Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2022 HK\$M
1 CLP Power electricity sales to Mainland China						
1.1	<p>Energy Economy Interchange Agreement</p> <p>Original agreement entered into on 25 December 2015 and extended by way of further agreements. On 5 November 2018, a supplemental agreement was entered into to further extend the term to 24 December 2021. On 20 December 2019, a 2nd supplemental agreement was entered into under which the expiry date remained unchanged. On 23 December 2021, a 3rd supplemental agreement was entered into to further extend the term to 31 December 2022. On 24 October 2022, a 4th supplemental agreement was entered into under which the expiry date remained unchanged. On 12 December 2022, an extension agreement was entered into to further extend the term to 31 December 2023.</p>	CLP Power	Guangdong Power Grid Co., Ltd., a subsidiary of CSG (CSG-GPG)	Economic interchange of electricity from, on the one side, CLP Power to CSG-GPG and, on the other, from CSG-GPG to CLP Power, depending on which party is affected by an emergency incident resulting in interruption of normal electricity supply to its customers.	<p>The consideration will, under circumstances prescribed in the agreement, be settled either by cash payment or by CSG-GPG's supply of such volume of water to Guangzhou Pumped Storage Power Station (for which the CLP Group has contractual rights to use 50% of Phase I of the power station (600MW)) for the generation of electricity equivalent to the volume supplied by CLP Power.</p> <p>For the energy transfer settled by cash payment, it is based on the number of kWh sold multiplied by an arm's length tariff (unit rate of energy transfer) agreed between the parties. In addition, under the standby capacity support, the consideration settled by cash payment is based on the capacity (MW) and hours requested to standby multiplied by an arm's length tariff (standby charges) agreed between the parties. The unit rate of energy transfer and standby charges are determined after taking into account the available market information and the relevant cost.</p>	- (Note 1)
Aggregated total consideration for CLP Power electricity sales to Mainland China (Project level cap for 2022 was HK\$660.00 million)						-
2 Huaiji hydro project						
2.1	<p>Zelian Hydro Station Power Purchase Agreement (PPA)</p> <p>Agreement entered into on 24 September 2018 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 23 September 2023.</p>	Guangdong Huaiji Xinlian Hydro-electric Power Company Limited, a subsidiary of the Company (CLP-GHX)	Zhaoqing Power Bureau of CSG-GPG, a subsidiary of CSG (CSG-ZPB)	CLP-GHX sells electricity to CSG-ZPB which delegated the role of settlement to Zhaoqing Huaiji Power Bureau (CSG-ZHPB), another subsidiary of CSG.	Payment is based on the number of kWh sold multiplied by a tariff pre-determined by the Zhaoqing Development and Reform Commission (Zhaoqing DRC). This tariff is published at the Zhaoqing DRC Document ZhaoJia [2012] No. 67, supplemented by the Guangdong Provincial Development and Reform Commission (Guangdong PDRC) Document YueJia [2013] No. 177 and is updated from time to time.	5.69
2.2	<p>Supplemental Agreement to Zelian Hydro Station PPA</p> <p>Agreement entered into on 16 August 2019 for a one-year period from 19 April 2019 to 18 April 2020 with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 18 April 2023.</p>	CLP-GHX	CSG-ZPB	This is for the temporary arrangement for CSG-ZPB to supply electricity to CLP-GHX during the technical retrofit of Zelian Hydro Station and the upgrade of the local grid company.	Payment is based on the number of kWh sold multiplied by a tariff pre-determined by the Guangdong PDRC. This tariff is published at the Guangdong PDRC Document YueFaGaiJiaGe [2021] No. 331 and is updated from time to time.	-
2.3	<p>Longzhongtan Hydro Station PPA</p> <p>Agreement entered into on 25 December 2018 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 24 December 2023.</p>	CLP-GHX	CSG-ZPB	As in item 2.1 above	As in item 2.1 above	2.68

	Name, date and term of the agreement	Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2022 HK\$M
2.4	<p>Jiaoping Hydro Station PPA</p> <p>Agreement entered into on 28 September 2015 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 27 September 2023.</p>	CLP-GHX	CSG-ZPB	CLP-GHX sells electricity to CSG-ZPB.	As in item 2.1 above	1.61
2.5	<p>Xiazhu Hydro Station PPA</p> <p>Agreement entered into on 28 September 2015 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 27 September 2023.</p>	CLP-GHX	CSG-ZPB	As in item 2.4 above	As in item 2.1 above	7.32
2.6	<p>Shuixia Hydro Station PPA</p> <p>Agreement entered into on 28 September 2015 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 27 September 2023.</p>	Guangdong Huaiji Weifa Hydro-electric Power Company Limited, a subsidiary of the Company (CLP-GHW)	CSG-ZPB	CLP-GHW sells electricity to CSG-ZPB.	As in item 2.1 above	26.33
2.7	<p>Baishuihe Four Hydro Stations PPA</p> <p>Agreement entered into on 28 September 2015 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 27 September 2023.</p>	<p>Guangdong Huaiji Changxin Hydro-electric Power Company Limited (CLP-GHC)</p> <p>Guangdong Huaiji Gaotang Hydro-electric Power Company Limited (CLP-GHG)</p> <p>CLP-GHW</p> <p>CLP-GHX</p> <p>All of the above companies are subsidiaries of the Company.</p>	CSG-ZPB	CLP-GHC, CLP-GHG, CLP-GHW and CLP-GHX sell electricity to CSG-ZPB.	As in item 2.1 above	130.46
2.8	<p>Supplemental Agreement to Baishuihe Four Hydro Stations PPA</p> <p>Agreement entered into on 9 December 2020 for a two-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 8 December 2023.</p>	CLP-GHC, CLP-GHG, CLP-GHW and CLP-GHX	CSG-ZPB	CLP-GHC, CLP-GHG, CLP-GHW and CLP-GHX sell / purchase electricity to / from CSG-ZPB.	As in item 2.1 above	-
2.9	<p>Niuqi Hydro Station PPA</p> <p>Agreement entered into on 26 July 2016 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 25 July 2023.</p>	CLP-GHX	CSG-ZPB	As in item 2.4 above	As in item 2.1 above	21.30

	Name, date and term of the agreement	Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2022 HK\$M
2.10	Zelian Hydro Station High Voltage Electricity Supply Contract Agreement entered into on 23 December 2021 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 22 December 2023.	CLP-GHX	CSG-ZHPB	CSG-ZHPB supplies electricity to CLP-GHX as an industrial user for the station's consumption.	According to the National Development and Reform Commission (NDRC) Document [2021] No. 809, power users will purchase electricity through market sales directly or through grid companies, which will act as agents to purchase electricity on behalf of industrial and commercial users that cannot purchase directly from the market. The tariff is based on 1-1.5 times weighted average price of the monthly centralised bidding transactions plus fees such as agency fees as well as transmission and distribution fees.	0.01
2.11	Longzhongtan Hydro Station High Voltage Electricity Supply Contract Agreement entered into on 23 December 2021 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 22 December 2023.	CLP-GHX	CSG-ZHPB	As in item 2.10 above	As in item 2.10 above	0.01
2.12	Jiaoping Hydro Station High Voltage Electricity Supply Contract Agreement entered into on 23 December 2021 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 22 December 2023.	CLP-GHX	CSG-ZHPB	As in item 2.10 above	As in item 2.10 above	0.25
2.13	Xiazhu Hydro Station High Voltage Electricity Supply Contract Agreement entered into on 23 December 2021 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 22 December 2023.	CLP-GHX	CSG-ZHPB	As in item 2.10 above	As in item 2.10 above	0.04
2.14	Shuixia Hydro Station High Voltage Electricity Supply Contract Agreement entered into on 23 December 2021 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 22 December 2023.	CLP-GHW	CSG-ZHPB	CSG-ZHPB supplies electricity to CLP-GHW as an industrial user for the station's consumption.	As in item 2.10 above	0.39
2.15	Baishuihe Four Hydro Stations High Voltage Electricity Supply Contract Agreement entered into on 23 December 2021 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 22 December 2023.	CLP-GHC, CLP-GHG, CLP-GHW and CLP-GHX	CSG-ZHPB	CSG-ZHPB supplies electricity to CLP-GHC, CLP-GHG, CLP-GHW and CLP-GHX as an industrial user for the station's consumption.	As in item 2.10 above	0.13
Aggregated total consideration for Huaiji hydro project (Project level cap for 2022 was HK\$299.00 million)						196.22

Name, date and term of the agreement		Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2022 HK\$M
3 Meizhou solar project						
3.1	Meizhou Solar Project PPA Agreement entered into on 1 March 2019 for a one-year period from 1 February 2019 to 1 February 2020 with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 1 February 2023.	Pingyuan Litian New Energy Power Company Limited, a wholly-owned subsidiary of the Company (CLP Meizhou)	Meizhou Power Bureau of CSG-GPG, a subsidiary of CSG (CSG-MPB)	CLP Meizhou sells electricity to CSG-MPB.	Payment is based on the number of kWh sold multiplied by a tariff pre-determined by the Guangdong PDRC. This tariff is published at the Guangdong PDRC Document YueFaGaiJiaGe [2017] No. 3084 and is updated from time to time.	50.29
3.2	Meizhou Solar Project High Voltage Electricity Supply Contract (110kV, DongLi Line) Agreement entered into on 10 July 2019 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 9 July 2023.	CLP Meizhou	Meizhou Pingyuan Power Bureau of CSG-GPG, a subsidiary of CSG (CSG-MPPB)	CSG-MPPB supplies electricity to CLP Meizhou as an industrial user for power consumption at the project site.	As in item 2.10 above	0.06
3.3	Meizhou Solar Project High Voltage Electricity Supply Contract (10kV, DongShi Line) (Note 2) Agreement entered into on 9 June 2017 for a one-year period with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 8 June 2023.	CLP Meizhou	CSG-MPPB	As in item 3.2 above	As in item 2.10 above	0.30
Aggregated total consideration for Meizhou solar project (Project level cap for 2022 was HK\$64.00 million)						50.65
4 Yang_er hydro project						
4.1	Yang_er Hydro Project High Voltage Electricity Supply Contract (10kV, for dam) New agreement entered into on 23 September 2022 for a three-year period to 22 September 2025 with automatic renewals for successive three-year periods.	Dali Yang_er Hydropower Development Co., Ltd., a wholly-owned subsidiary of the Company (Dali Yang_er)	Yangbi Electricity Supply Co., Ltd., a subsidiary of CSG (CSG Yangbi)	CSG Yangbi supplies electricity to Dali Yang_er as an industrial user for power consumption at project site.	According to Yunnan Provincial Development and Reform Commission (Yunnan PDRC) Document [2021] No. 1140, power users will purchase electricity through market sales directly or through grid companies, which will act as agents to purchase electricity on behalf of industrial and commercial users that cannot purchase directly from the market. The tariff is based on 1-1.5 times weighted average price of the monthly centralised bidding transactions plus fees such as agency fees as well as transmission and distribution fees.	0.01
4.2	Yang_er Hydro Project High Voltage Electricity Supply Contract (10kV, for plant) New agreement entered into on 23 September 2022 for a three-year period to 22 September 2025 with automatic renewals for successive three-year periods.	Dali Yang_er	CSG Yangbi	As in item 4.1 above	As in item 4.1 above	0.01
4.3	Yang_er Hydro Project High Voltage Electricity Supply Contract (110kV) New agreement entered into on 23 September 2022 for a three-year period to 22 September 2025 with automatic renewals for successive three-year periods.	Dali Yang_er	Dali Power Bureau of Yunnan Power Grid Company Limited (CSG Yunnan), a subsidiary of CSG (CSG-DPB)	CSG-DPB supplies electricity to Dali Yang_er as an industrial user for the station's consumption.	As in item 4.1 above	-

	Name, date and term of the agreement	Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2022 HK\$M
4.4	<p>Power Exchange Sales</p> <p>Transactions entered into via Kunming Power Exchange Center Limited (Kunming PEC) on various dates in 2022 for electricity sales for various durations.</p>	Dali Yang_er	CSG Yunnan, a subsidiary of CSG, and Kunming PEC which is 44% owned by CSG Yunnan	Dali Yang_er sells electricity through Kunming PEC from time to time where (i) CSG Yunnan acts as settlement agent and assumes settlement risks for these transactions as defined under the Kunming PEC settlement rules or (ii) CSG Yunnan acts as the purchaser for interprovincial electricity sales.	Payment is based on the number of kWh sold multiplied by the tariff determined through competitive bidding processes conducted on Kunming PEC, an arm's length tariff agreed between the parties for market sales (as applicable), or set by Kunming PEC for interprovincial electricity sales (together with a transaction fee charged by Kunming PEC).	33.54
<p>Aggregated total consideration for Yang_er hydro project (Project level cap for 2022 was HK\$41.00 million)</p>						33.56
5	Xicun solar project (Phases I and II)					
5.1	<p>Xicun Solar Project PPA</p> <p>New agreement entered into on 22 November 2022 for a one-year period from 10 October 2022 to 9 October 2023 with automatic renewals for successive one-year periods.</p>	CLP Dali (Xicun) Solar Power Co., Ltd, a wholly-owned subsidiary of the Company (CLP Xicun)	CSG Yunnan	CLP Xicun sells electricity to CSG Yunnan.	According to Yunnan Energy Operations Document [2021] No. 286, renewable energy generators will in non-wet seasons (from January to May and from November to December) fully participate in market sales, and in wet seasons (between June and October), all generation will be sold under "Priority Sales" at a discounted tariff based upon the average monthly bidding tariffs for non-renewable energy projects (i.e. exclude solar and wind projects) announced by Kunming PEC. The total tariff includes the settled price and a subsidy.	46.50
5.2	<p>Xicun Solar Project High Voltage Electricity Supply Contract (for project site)</p> <p>New agreement entered into on 25 September 2022 for a three-year period to 24 September 2025 with automatic renewals for successive three-year periods.</p>	CLP Xicun	Dali Binchuan Power Bureau of CSG Yunnan, a subsidiary of CSG (CSG Binchuan)	CSG Binchuan supplies electricity to CLP Xicun as an industrial user for power consumption at the project site.	As in item 2.10 above	-
5.3	<p>Xicun Solar Project High Voltage Electricity Supply Contract</p> <p>Agreement entered into on 25 December 2019 for a three-year period with automatic renewals for successive three-year periods. The latest renewal was for another three-year period to 24 December 2025.</p>	CLP Xicun	CSG-DPB	CSG-DPB supplies electricity to CLP Xicun as an industrial user for power consumption by the project site's equipment when the plant is not in generation mode.	As in item 2.10 above	0.38
5.4	<p>Xicun Solar Project High Voltage Electricity Supply Contract (for pump station)</p> <p>New agreement entered into on 25 September 2022 for a three-year period to 24 September 2025 with automatic renewals for successive three-year periods.</p>	CLP Xicun	CSG Binchuan	CSG Binchuan supplies electricity to CLP Xicun as an agricultural user for the watering facilities.	Payment is based on the number of kWh sold multiplied by a tariff pre-determined by the NDRC and subject to adjustment in accordance with the 2022 Implementation Scheme for Trading in Yunnan Electricity Market issued by Yunnan PDRC and Yunnan Provincial Energy Administration and is updated from time to time.	0.02

	Name, date and term of the agreement	Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2022 HK\$M
5.5	Power Exchange Sales Transactions entered into via Kunming PEC on various dates in 2022 for electricity sales for various durations.	CLP Xicun	CSG Yunnan and Kunming PEC	CLP Xicun sells electricity through Kunming PEC from time to time where (i) CSG Yunnan acts as settlement agent and assumes settlement risks for these transactions as defined under the Kunming PEC settlement rules or (ii) CSG Yunnan acts as the purchaser for interprovincial electricity sales.	As in item 4.4 above	86.07
Aggregated total consideration for Xicun solar project (Phases I and II) (Project level cap for 2022 was HK\$167.00 million)						132.97
6	Xundian wind project					
6.1	Xundian Wind Project PPA Agreement entered into on 14 October 2016 for a one-year period from 1 January to 31 December 2016 with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 31 December 2023.	CLP (Kunming) Renewable Energy Co., Ltd., a wholly-owned subsidiary of the Company (CLP Xundian)	CSG Yunnan	CLP Xundian sells electricity to CSG Yunnan.	As in item 5.1 above	11.68
6.2	Xundian Wind Project High Voltage Electricity Supply Contract (Note 3) New agreement entered into on 24 November 2022 for a three-year period to 23 November 2025 with automatic renewals for successive three-year periods.	CLP Xundian	Kunming Power Bureau of CSG Yunnan, a subsidiary of CSG (CSG-KPB)	CSG-KPB supplies electricity via a 110kV line to CLP Xundian for the station's consumption.	As in item 2.10 above	0.14
6.3	Xundian Wind Project High Voltage Electricity Supply Contract (10kV) Agreement entered into on 8 July 2019 for a three-year period with automatic renewals for successive three-year periods. The latest renewal was for another three-year period to 7 July 2025.	CLP Xundian	Kunming Xundian Power Supply Company Limited of CSG Yunnan, a subsidiary of CSG (CSG-KXPSC)	CSG-KXPSC supplies electricity to CLP Xundian for non-residential use by the plant's facilities.	Payment is based on the number of kWh sold multiplied by the non-residential tariff determined by the Yunnan PDRC. This tariff is updated from time to time.	0.01
6.4	Power Exchange Sales Transactions entered into via Kunming PEC on various dates in 2022 for electricity sales for various durations.	CLP Xundian	CSG Yunnan and Kunming PEC	CLP Xundian sells electricity through Kunming PEC from time to time where (i) CSG Yunnan acts as settlement agent and assumes settlement risks for these transactions as defined under the Kunming PEC settlement rules or (ii) CSG Yunnan acts as the purchaser for interprovincial electricity sales.	As in item 4.4 above	52.98
Aggregated total consideration for Xundian wind project (Project level cap for 2022 was HK\$87.00 million)						64.81

Name, date and term of the agreement		Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2022 HK\$M
7 Sandu wind project						
7.1	Sandu Wind Project PPA Agreement entered into on 31 December 2021 for a two-year period from 1 January 2022 to 31 December 2023.	CLP (Sandu) Renewable Energy Limited, a wholly-owned subsidiary of the Company (CLP Sandu)	Guizhou Power Grid Company Limited, a subsidiary of CSG (CSG Guizhou)	CLP Sandu sells electricity to CSG Guizhou.	Payment is based on the number of kWh sold multiplied by a tariff pre-determined by the Guizhou Provincial Development and Reform Commission (Guizhou PDRC). The tariff is published at the Guizhou PDRC Document QianFaGaiJiaGe [2017] No. 1113 and is updated from time to time.	124.39
7.2	Sandu Wind Project High Voltage Electricity Supply Contract Agreement entered into on 8 December 2015 for a three-year period to 7 December 2018 with automatic renewals for successive one-year periods. A supplemental agreement was entered into on 21 March 2018 for a one-year period from 18 August 2018 to 17 August 2019 with automatic renewals for successive one-year periods. The latest renewal was for another one-year period to 17 August 2023.	CLP Sandu	Duyun Sandu Power Bureau of CSG Guizhou, a subsidiary of CSG (CSG-DSPB)	CSG-DSPB supplies electricity to CLP Sandu as an industrial user for power consumption at the project site.	As in item 2.10 above	0.47
7.3	Sandu Wind Project Electricity Supply Contract (10kV) Agreement entered into on 23 March 2018 for a three-year period to 22 March 2021 with automatic renewals for successive three-year periods. The latest renewal was for another three-year period to 22 March 2024.	CLP Sandu	CSG-DSPB	CSG-DSPB supplies electricity to CLP Sandu for power consumption at the project site.	Payment is based on the number of kWh sold multiplied by the resident life use tariff for resident users determined by the Guizhou PDRC. The tariff is published at the Guizhou PDRC Document QianFaGaiJiaGe [2020] No. 1025 and is updated from time to time.	0.02
Aggregated total consideration for Sandu wind project <i>(Project level cap for 2022 was HK\$193.00 million)</i>						124.88
Total Consideration for 2022						603.09 <small>(Note 1)</small>

Notes:

- Besides the transaction value shown in the table, CLP Power also supplied electricity to CSG-GPG in 2022 under this agreement with consideration settled by CSG-GPG in full by the supply of water to Guangzhou Pumped Storage Power Station to generate the same quantity of power equivalent to the power supplied by CLP Power without any cash settlement. For the purpose of disclosure for this particular arrangement, the notional value has been calculated as if all transactions had been settled in cash in accordance with this agreement; the notional value derived was equivalent to HK\$35.7 million in 2022 for power supply carried out. This equivalent amount is also the reference used to monitor whether all transactions fall within the Annual Aggregate Cap and is excluded from the above total consideration for 2022.
- The agreement was signed on 9 June 2017 before CLP acquired the project company of Meizhou Solar Project on 11 January 2019, this pre-existing contract was grandfathered and until a supplemental agreement was signed on 9 May 2022 to reflect the change to tariff mechanism, it was then included for completeness and monitoring purposes.
- This was to replace the previous agreement signed on 1 September 2020 and received subsequent to the Company's announcement on 3 January 2023.

Pursuant to Rule 14A.55 of the Listing Rules, all the Independent Non-executive Directors of the Company have reviewed the CCTs and confirmed that the CCTs have been entered into:

- in the ordinary and usual course of business of the Group;
- on normal commercial terms or better to CLP; and
- according to the relevant agreement governing each of the CCTs on terms that are fair and reasonable and in the interests of the Company's shareholders as a whole.

The Company's independent auditor, PwC, was engaged to report on the CCTs in accordance with Hong Kong Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 (Revised) "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants.

PwC has reviewed these transactions and, pursuant to Rule 14A.56 of the Listing Rules, confirmed to the Board of the Company that nothing has come to their attention that causes them to believe that:

- the transactions have not been approved by the Board of the Company;
- the transactions were not, in all material respects, in accordance with the pricing policies of the Group;
- the transactions were not entered into, in all material respects, in accordance with the relevant agreements governing the transactions; and
- the transactions have exceeded the annual aggregate cap.

Management Contracts

No contracts concerning the management and administration of the whole or any substantial part of the business of the Company were entered into or existed during the year.

Related Party Transactions

Details of the significant related party transactions undertaken in the normal course of business are provided under Note 32 to the Financial Statements. None of these constitutes a discloseable connected transaction as defined under the Listing Rules.

Interests of Directors and Chief Executive Officer

The interests / short positions of each of the Directors and the CEO in the shares, underlying shares and debentures of the Company or any of the Company's associated corporations (within the meaning of the Securities and Futures Ordinance) as at 31 December 2022, as recorded in the register required to be kept under Section 352 of Part XV of the Securities and Futures Ordinance, are set out in the table below and the corresponding explanatory notes:

1 Aggregate long position in the shares, underlying shares and debentures of the Company and its associated corporations

The interests of Directors and the CEO in the shares of the Company (other than pursuant to equity derivatives such as share options, warrants to subscribe or convertible bonds) as at 31 December 2022 were as follows:

Directors	Capacity	Total Interests in Number of Ordinary Shares of the Company	% of the Issued Share Capital of the Company
The Hon Sir Michael Kadoorie	Note 1	410,526,125	16.24913
Mr J.A.H. Leigh	Note 2	218,821,853	8.66124
Mr Andrew Brandler	Note 3	10,600	0.00042
Mr Philip Kadoorie	Note 4	409,226,125	16.19767
Mr Nicholas C. Allen	Note 5	41,000	0.00162
Mrs Fanny Law	Beneficial Owner	6,800	0.00027
Ms May Siew Boi Tan	Beneficial Owner	20,000	0.00079
Mr Bernard Chan	Note 6	819,000	0.03242
Mr Richard Lancaster (CEO)	Personal	600	0.00002

Notes:

- 1 The Hon Sir Michael Kadoorie was deemed (by virtue of the Securities and Futures Ordinance) to be interested in 410,526,125 shares in the Company. These shares were held in the following capacity:
 - a 233,044,212 shares were ultimately held by a discretionary trust, of which The Hon Sir Michael Kadoorie is one of the beneficiaries and the founder.
 - b 170,181,913 shares were ultimately held by a discretionary trust, of which The Hon Sir Michael Kadoorie is one of the beneficiaries and the founder.
 - c 1,300,000 shares were ultimately held by a discretionary trust, of which The Hon Sir Michael Kadoorie is the founder.
 - d 2,000,000 shares were ultimately held by each of three discretionary trusts, all of which The Hon Sir Michael Kadoorie is one of the beneficiaries and the founder.
- 2 Mr J.A.H. Leigh was deemed (by virtue of the Securities and Futures Ordinance) to be interested in 218,821,853 shares in the Company. These shares were held in the following capacity:
 - a 170,000 shares were held in a beneficial owner capacity.
 - b 218,651,853 shares were ultimately held by a discretionary trust. Mr J.A.H. Leigh was deemed to be interested in such 218,651,853 shares in his capacity as one of the trustees of a trust which was deemed to be interested in such 218,651,853 shares.

- 3 600 shares were held in a personal capacity and 10,000 shares were held in a beneficial owner capacity.
- 4 Mr Philip Kadoorie was deemed (by virtue of the Securities and Futures Ordinance) to be interested in 409,226,125 shares in the Company. These shares were held in the following capacity:
 - a 233,044,212 shares were ultimately held by a discretionary trust, of which Mr Philip Kadoorie is one of the discretionary beneficiaries.
 - b 170,181,913 shares were ultimately held by a discretionary trust, of which Mr Philip Kadoorie is one of the discretionary beneficiaries.
 - c 2,000,000 shares were ultimately held by a discretionary trust, of which Mr Philip Kadoorie is one of the discretionary beneficiaries.
 - d 2,000,000 shares were ultimately held by each of two discretionary trusts, both of which Mr Philip Kadoorie is one of the default beneficiaries.
- 5 41,000 shares were held in a beneficial owner capacity and jointly with spouse.
- 6 Mr Bernard Chan was deemed (by virtue of the Securities and Futures Ordinance) to be interested in 819,000 shares in the Company. These shares were held in the following capacity:
 - a 810,000 shares were held by two wholly-owned subsidiaries of Asia Financial Holdings Limited (AFH). Mr Bernard Chan is deemed to be interested in approximately 61.87% of AFH.
 - b 9,000 shares were held by United Asia Enterprises Inc, an investment company in which Mr Bernard Chan holds 34% of the shares.

Each of the other Directors, namely Mr William Mocatta, Sir Rod Eddington, Mrs Zia Mody, Ms Christina Gaw and Mr Chunyuan Gu have confirmed that they had no interests in the shares of the Company or any of its associated corporations as at 31 December 2022.

None of the Directors or the CEO had interests in debentures or under equity derivatives, interests in underlying shares of the Company or its associated corporations as at 31 December 2022.

2 Aggregate short position in the shares, underlying shares and debentures of the Company and its associated corporations

None of the Directors or the CEO had short positions in respect of shares, debentures or under equity derivatives, interests in underlying shares of the Company or its associated corporations as at 31 December 2022.

At no time during the year was the Company or its subsidiaries a party to any arrangement to enable the Directors and the CEO of the Company (including their spouse and children under 18 years of age) to acquire benefits by an acquisition of shares or underlying shares in, or debentures of, the Company or its associated corporations.

Interests of Substantial Shareholders

The interests / short positions of substantial shareholders in the shares and underlying shares of the Company as at 31 December 2022, as recorded in the register required to be kept under Section 336 of Part XV of the Securities and Futures Ordinance, are set out in the table below and the corresponding explanatory notes:

1 Aggregate long position in the shares and underlying shares of the Company

The Company had been notified of the following substantial shareholders' interests in the shares of the Company as at 31 December 2022:

Substantial Shareholders	Capacity	Total Interests in Number of Ordinary Shares of the Company	% of the Issued Share Capital of the Company
Bermuda Trust Company Limited	Trustee / Interests of controlled corporations	305,591,730 Note 1	12.10
Guardian Limited	Beneficiary / Interest of controlled corporation	218,651,853 Note 3	8.65
Harneys Trustees Limited	Trustee / Interests of controlled corporations	629,177,978 Note 3	24.90
Lawrencium Holdings Limited	Beneficiary	170,181,913 Note 2	6.74
Lawrencium Mikado Holdings Limited	Beneficiary	233,044,212 Note 2	9.22
The Magna Foundation	Beneficiary	233,044,212 Note 2	9.22
The Mikado Private Trust Company Limited	Trustee / Interests of controlled corporations	410,526,125 Note 2	16.25
Oak CLP Limited	Beneficiary	218,651,853 Note 4	8.65
Oak (Unit Trust) Holdings Limited	Trustee	218,651,853 Note 1	8.65
The Oak Private Trust Company Limited	Trustee / Interests of controlled corporation	218,651,853 Note 4	8.65
The Hon Sir Michael Kadoorie	Note 5	410,526,125 Note 5	16.25
Mr J.A.H. Leigh	Notes 3 & 6	218,821,853 Notes 3 & 6	8.66
Mr Philip Kadoorie	Note 7	409,226,125 Note 7	16.20

Notes:

- 1 Bermuda Trust Company Limited was deemed to be interested in the shares in which Oak (Unit Trust) Holdings Limited, The Oak Private Trust Company Limited and other companies were deemed to be interested, either in the capacity as trustee of various discretionary trusts and / or by virtue of having direct or indirect control over such companies.
- 2 The Mikado Private Trust Company Limited was deemed to be interested in the shares in which Lawrencium Holdings Limited, Lawrencium Mikado Holdings Limited and other companies were deemed to be interested, either in the capacity as trustee of various discretionary trusts and / or by virtue of having direct or indirect control over such companies. The Magna Foundation was also deemed to be interested in the shares in which Lawrencium Mikado Holdings Limited was deemed to be interested. The interests of The Mikado Private Trust Company Limited in the shares of the Company include the shares held by discretionary trusts of which The Hon Sir Michael Kadoorie is one of the beneficiaries and / or a founder as disclosed in "Interests of Directors and Chief Executive Officer".

3 Harneys Trustees Limited was deemed to be interested in the shares in which The Mikado Private Trust Company Limited and Guardian Limited were deemed to be interested, either by virtue of having direct or indirect control over such companies and / or in the capacity as one of the trustees of a discretionary trust.

The shares in which Guardian Limited was deemed to be interested was duplicated within the interests attributed to Mr J.A.H. Leigh in his capacity as one of the trustees of a discretionary trust as disclosed in "Interests of Directors and Chief Executive Officer".

4 The Oak Private Trust Company Limited was deemed to be interested in the shares in which Oak CLP Limited was deemed to be interested, either in the capacity as trustee of a discretionary trust and / or by virtue of having direct or indirect control over such company.

5 See Note 1 under "Interests of Directors and Chief Executive Officer".

6 See Note 2 under "Interests of Directors and Chief Executive Officer".

7 See Note 4 under "Interests of Directors and Chief Executive Officer".

As at 31 December 2022, the Company had not been notified of any long positions being held by any substantial shareholder in the underlying shares of the Company through equity derivatives such as share options, warrants to subscribe or convertible bonds.

2 Aggregate short position in the shares and underlying shares of the Company

As at 31 December 2022, the Company had not been notified of any short positions being held by any substantial shareholder in the shares or underlying shares of the Company.

Interests of Any Other Persons

As at 31 December 2022, the Company had not been notified of any persons other than the substantial shareholders who had interests or short positions in the shares or underlying shares of the Company, which are required to be recorded in the register required to be kept under Section 336 of Part XV of the Securities and Futures Ordinance.

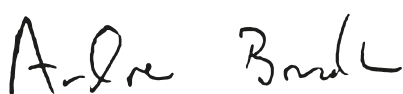
Corporate Governance

The Company's corporate governance principles and practices are set out in the Corporate Governance Report on page 110 of this Annual Report.

Auditor

The Financial Statements for the year have been audited by PwC who will retire and, being eligible, offer themselves for re-appointment, at the AGM of the Company.

On behalf of the Board



Andrew Brandler

Vice Chairman

Hong Kong, 27 February 2023

› Financials

Approaching Our Financial Statements	219
Accounting Mini-series	220
Independent Auditor's Report	223
Financial Statements	232
Five-year Summaries	308

We aim to provide our stakeholders with a comprehensive, clear and concise view of our financial position and performance.

Contents

Approaching Our Financial Statements	219
Accounting Mini-series	220
Independent Auditor's Report	223
Consolidated Statements of	
Profit or Loss	232
Profit or Loss and Other Comprehensive Income	233
Financial Position	234
Changes in Equity	236
Cash Flows	237
Significant Accounting Policies	238

Notes to the Financial Statements


Performance		Financial Risk Management	
2. Revenue	244	16. Derivative Financial Instruments	266
3. Segment Information	245		
4. Other Charges	248	Debt and Equity	
5. Operating Profit	249	6. Finance Costs and Income	251
7. Income Tax Expense	252	8. Dividends	252
9. Earnings per Share	253	23. Bank Loans and Other Borrowings	276
		27. Share Capital	282
Capital Investments		28. Reserves	282
10. Fixed Assets	253	29. Perpetual Capital Securities and Other Non-Controlling Interests	283
11. Right-of-Use Assets	256		
12. Investment Property	256	Cash Flows Related	
13. Goodwill and Other Intangible Assets	257	30. Notes to the Consolidated Statement of Cash Flows	284
14. Interests in and Loans to Joint Ventures	261		
15. Interests in Associates	264	Off-balance Sheet	
26. Asset Decommissioning Liabilities and Retirement Obligations	280	31. Commitments	286
Working Capital		Others	
18. Properties for Sale / under Development	269	1. General Information	244
19. Trade and Other Receivables	270	17. Other Non-current Assets	268
20. Bank Balances, Cash and Other Liquid Funds	274	24. Deferred Tax	277
21. Fuel Clause Account	274	32. Related Party Transactions	286
22. Trade Payables and Other Liabilities	275	33. Statement of Financial Position of the Company	288
25. Scheme of Control Reserve Accounts	279	34. Subsidiaries	289

Financial Risk Management	291
Scheme of Control Statement	305

Approaching Our Financial Statements

The objective of financial statements is to communicate the Group's financial information to our stakeholders, especially shareholders, investors and lenders, for making economic decisions. To achieve this objective, it is always our aim to present the financial information of CLP as clearly and concisely as possible. This overview helps you understand how information is organised and presented in our financial statements. Hopefully, this will bring you a more insightful reading experience.

1 Accounting Mini-series

We believe that understanding financial statements is a right, not a privilege. To help those unfamiliar with accounting terms read our financial statements, we have developed an [Accounting Mini-series](#) to **explain topical and difficult accounting concepts in a way that is easier to understand**. A number of topics have been discussed since 2007, the content of which can be found in our website. 



Read our accounting mini-series

3 Significant Accounting Policies

Financial statements are prepared in accordance with Hong Kong Financial Reporting Standards (HKFRS). You do not need to be familiar with all the requirements of HKFRS because **the accounting policies which are significant and relevant to the Group are disclosed in the financial statements**. The disclosures include specific principles and procedures selected and applied by management in preparing the financial statements, as well as the methods, measurement basis and procedures to account for the transactions.

Look for green gradient boxes


5 Tips & Hints

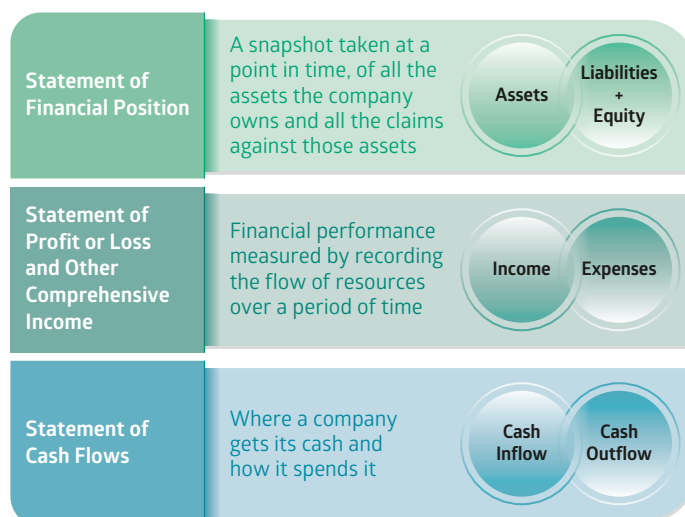
Tips & Hints are our initiatives to **facilitate you to understand the content of a particular disclosure or complicated accounting concepts or terms**.



Look for magnifier

2 Essential Financial Statements

Financial statements start with summaries of the financial position, performance and changes in resources of the Group. **These summaries are presented in three essential financial statements with different objectives as shown in the diagram**. The relationships between these statements and the interactions with the Group's stakeholders are set out in our [website](#). 



4 Critical Accounting Estimates and Judgements

Management makes judgements and estimates in preparing the financial statements, some of which will have a significant effect on the reported results and financial position. HKAS 1 specifies that an entity shall disclose (1) the key judgements that have the most significant effect on amounts recognised; and (2) the assumptions and other sources of estimation uncertainty at period end that have a significant risk of material adjustment to the carrying amounts of assets or liabilities within the next financial year. You should pay attention to **our disclosures under "critical accounting estimates and judgements" which help you assess CLP's financial position and performance and understand the sensitivities to changes in assumptions**.

Look for green boxes

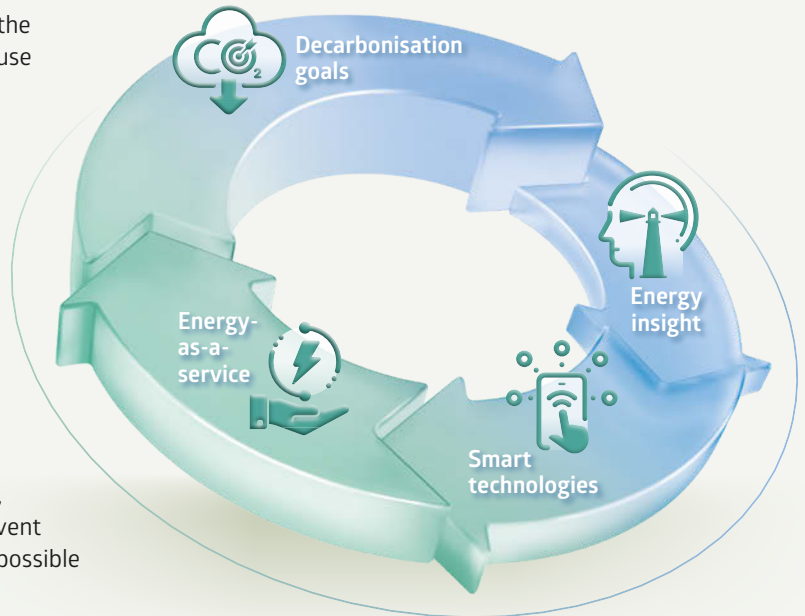


Energy-as-a-Service and its Accounting Implications

Overview

CLP's Climate Vision 2050 sets out the blueprint of the Group's transition to net-zero greenhouse gas emissions leading up to mid-century.

Decarbonisation is CLP's main priorities for our transition to a Utility of the Future. As the pace of change in the energy industry continues to accelerate, we recognise that the once linear and traditional electricity sector value chain has morphed into an interconnected and multidirectional mesh of opportunities with which we need to evolve. Energy efficiency programmes that use smart technologies provide a significant opportunity for achieving decarbonisation goals. However, the market barriers—high upfront technology costs, capital constraints for consumers, information barriers, and uncertainty about a technology's performance prevent widespread adoption of low-carbon technologies. One possible solution is the energy-as-a-service business model.



Energy-as-a-Service

Energy-as-a-Service (EaaS) business model is a one-solution model which combines hardware, software and services. The model combines demand management and energy efficiency services, facilitates the adoption of renewable energy and also optimises the balance between demand and supply.

EaaS business model usually takes the form of a subscription for electrical devices owned by a service company or management of energy usage to deliver the desired energy service. The model provides service providers with steady revenue streams while benefiting customers by enjoying the simplification of an increasingly multifaceted service without purchasing it outright or directly managing its use. Customers pay for an energy service without having to make any upfront capital investment, they also benefit from avoiding direct electricity payments, expensive upgrades for electrical equipment or software, and device management. It helps promote advanced technology and the potential for expanding the deployment of low-carbon technologies. Two typical EaaS models are introduced on the right, which are also part of the new business models CLP is adopting as we transition to a Utility of the Future.



Solar-as-a-Service (SaaS) is the service model for residential and community solar systems. SaaS has been used to overcome barriers to the use of low-carbon technologies while providing two advantages that many homeowners

pursue—electricity cost savings and environmental benefits—without requiring them to purchase or maintain the system. A solar services company installs and maintains a solar system on a homeowner's roof, at no upfront cost to the homeowner, supplying the household with electricity for the duration of the contract. The solar services provider retains ownership of the system and charges the customer for the service. The solar services provider receives monthly revenue and may also benefit from policy incentives and renewable energy credits for the system's electricity generation.



Cooling-as-a-Service (CaaS) is an innovative business model that enables customers to benefit from high end and energy-efficient cooling technologies without the need of an upfront investment. CaaS involves customers paying

for the cooling they receive, rather than the physical product or infrastructure that delivers the cooling. The technology provider installs and maintains the cooling equipment, recovering the costs through periodic payments made by the customer.

Accounting challenges

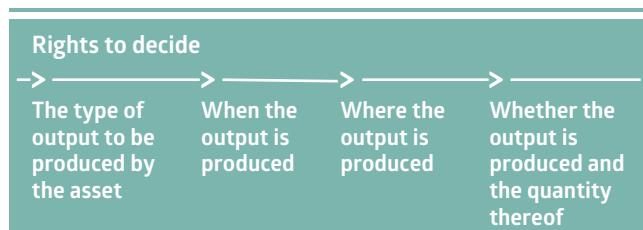
There are different types of EaaS models, but they all have a common feature - the service provider is responsible for the hardware, software as well as the operation and management service. This one-solution service contract brings out the question of what accounting model better reflects the hardware and software invested, and the services delivered by the service providers.



A lease arrangement?

The most fundamental accounting challenge on evaluating a EaaS model is whether the service contract contains a lease arrangement. One of the characteristics of EaaS model is to benefit the customers by not requiring them to make an upfront investment on the infrastructure but enabling them to enjoy the output over the term of the contract. This means the service provider provides the underlying assets while delivering the service over the contract term. As the customers enjoy substantially all of the economic benefits from the use of the assets, this comes to the question of whether a EaaS contract contains a lease arrangement.

The accounting standard defines a lease as a contract that conveys the right to use an asset for a period of time in exchange for consideration. In order for such a contract to exist, the customer of the asset needs to have **the right to obtain substantially all of the economic benefits from the use of the asset** and **the right to direct the use of the asset**. A customer has the right to direct the use of the asset if the customer has the following decision rights to direct **'how and for what purpose'** the asset will be used:



In cases that the 'how and for what purpose' decisions are predetermined, the customer controls the asset if the customer has the right to operate the asset throughout the period of use or if the customer designs the asset in a way that predetermines how and for what purpose the asset will be used throughout the period of use.

The objective of a EaaS contract is to achieve an energy saving solution, therefore, the service provider usually designs, builds and operates the asset under the desired purpose and outcome. The contract usually specifies the technical design, construction, and installation of the asset. The service provider is also responsible for the operation and maintenance of the asset for the desired output. Under this setting, the contract pre-determines how and for what purpose the asset will be used and customer neither operates nor designs the asset. **EaaS contracts therefore usually do not contain a lease arrangement.**

A bundled service – a single performance obligation?

Once it is identified that the EaaS contract does not contain a lease arrangement, the next accounting challenge is on revenue recognition. EaaS contracts usually include the provision of infrastructure and services to customers. In the context of revenue recognition, the accounting standard requires the service provider to identify the underlying performance obligations within a contract. This determination shall be based on the overall substance of the arrangement, rather than the legal form.

When there are several components in a contract, whether the components are bundled together into one performance obligation or not is particularly important, as the timing of revenue recognition for each performance obligation is considered separately. In identifying the performance obligations, it is key to look at the relationship between contract components to determine whether they are **'distinct in the context of the contract'**. A number of factors to consider, including:

- > Can the customer benefit from the good or service either on its own or together with other resources that are readily available to them?
- > Are these goods or services regularly sold separately?
- > Is the supplier providing a significant service to integrate two or more of the goods or services promised?
- > Are the promised goods or services highly dependent on (or highly interrelated with) one another?

If individual components are not considered distinct, they are bundled together in order to form a single distinct performance obligation. In a EaaS contract, the service provider is responsible for the overall design, build and management of the project. The identified goods and services to be provided are usually tailored to the customers' energy needs, which include engineering, site preparation, procurement, construction, installation, as well as continuous energy management and operation such as system monitoring, remote control, and load optimisation.

The objective of the EaaS model is to promote and optimise energy saving. The service provider is providing a significant integration service combining all of the infrastructure and services in the contract into a one solution service that it has contracted with the customer. The energy saving objective can only be ascertained if the overall design and operation are tailored and integrated. Therefore, the individual activities under a EaaS contract are usually considered as not distinct and not separate performance obligations. **The bundle of goods and services contracted with the customer in a EaaS contract is usually considered as a single performance obligation.**

Performance obligation satisfied over time

An entity recognises revenue when or as it satisfies a performance obligation by transferring a good or service to a customer, either at a point in time (when) or over time (as). A good or service is 'transferred' when or as the customer obtains control of it.

Applying the transfer of control concept to a EaaS model, the service provider recognises revenue over time simultaneous to when the customer consumes and receives the energy service.

There are no fixed rules to account for a EaaS contract. Knowing the purpose of design and the commercial objective of the contract is key to identify the most appropriate accounting treatment.



EaaS in CLP ⁺

One key approach to strive for our Climate Vision 2050 is to assist customers in using energy more efficiently and to support renewable energy development. CLP continues to harness the latest technologies to offer businesses and consumers sustainable energy solutions, helping them become more energy efficient and reduce their carbon footprints. Through its increasing technological capabilities, the Group has stepped up efforts to develop EaaS business models and deploy customer-facing energy solutions.

Type	Project details	Accounting models
Solar-as-a-Service	<p>Solar Energy System at Wellcome Fresh Food Centre</p> <p>CLP co-developed a solar panel system with Dairy Farm International Holdings on the rooftop of the Wellcome Fresh Food Centre in Hong Kong. CLP offers one-stop solar services from system design to construction, and operations and maintenance. This is the largest solar energy system in Hong Kong's retail sector under CLP Power's Feed-in Tariff scheme.</p>	=
	<p>Solar Energy Project for Link Asset Management Limited</p> <p>CLP is developing solar energy systems at 12 properties of Link Asset Management Limited in Hong Kong, with combined capacity of about 800kW. The contract will provide renewable energy under a SaaS model, whereby the customer can enjoy the energy it uses without having to make upfront capital investments.</p>	Balance Sheet Fixed assets model
Cooling-as-a-Service	<p>Centralised Cooling Project at Po Park Shopping Plaza</p> <p>CLP helped retrofitted and upgraded the centralised cooling system at Po Park Shopping Plaza in Guangzhou. Alongside the modification of the cooling system, equipment and design, CLP has also taken up the operation of the cooling system to provide cooling services to the shopping center until 2036. It was CLP's first centralised cooling project in the Greater Bay Area.</p>	+
	<p>Cooling Project at Nina Tower</p> <p>CLP has entered into a 20-year contract with Chinachem Group for the cooling system at the multi-purpose Nina Tower complex in Hong Kong. Under a Build-Own-Operate-Transfer model, CLP will carry out chiller plant replacement works and provide operation and maintenance services for Nina Tower. It will be the first zero-carbon chiller system in Hong Kong.</p>	Profit or loss Recognises revenue over time as a bundled service

Independent Auditor's Report



To the Members of CLP Holdings Limited

(incorporated in Hong Kong with limited liability)

Opinion

What we have audited

The consolidated financial statements of CLP Holdings Limited (the “Company”) and its subsidiaries (the “Group”) (“the Group Financial Statements”), which are set out on pages 232 to 304, comprise:

- > the Consolidated Statement of Financial Position as at 31 December 2022;
- > the Consolidated Statement of Profit or Loss for the year then ended;
- > the Consolidated Statement of Profit or Loss and Other Comprehensive Income for the year then ended;
- > the Consolidated Statement of Changes in Equity for the year then ended;
- > the Consolidated Statement of Cash Flows for the year then ended; and
- > the Significant Accounting Policies, Notes to the Financial Statements and Financial Risk Management.

Our opinion

In our opinion, the Group Financial Statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2022, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards (“HKFRSs”) issued by the Hong Kong Institute of Certified Public Accountants (“HKICPA”) and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

Basis for Opinion

We conducted our audit in accordance with Hong Kong Standards on Auditing (“HKSA”) issued by the HKICPA. Our responsibilities under those standards are further described in the Auditor’s Responsibilities for the Audit of the Group Financial Statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Group in accordance with the HKICPA’s Code of Ethics for Professional Accountants (“the Code”), and we have fulfilled our other ethical responsibilities in accordance with the Code.

Key Audit Matters

Key Audit Matters are those matters that, in our professional judgement, were of most significance in our audit of the Group Financial Statements of the current period. These matters were addressed in the context of our audit of the Group Financial Statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters identified in our audit are summarised as follows:

- > Unbilled retail revenue;
- > The carrying values of EnergyAustralia's energy retail business and generation assets;
- > Fixed asset accounting and the calculation of the Scheme of Control permitted return;
- > Recoverability of trade receivables; and
- > Asset retirement obligations (AROs).

Key Audit Matter	How our audit addressed the Key Audit Matter
<p>Unbilled retail revenue</p> <p>Refer to note 2 to the Group Financial Statements</p> <p>Retail electricity and gas revenues are recognised when electricity and gas are supplied to and consumed by the customers. Revenues are measured on the basis of periodic cycle meter readings and include an estimated accrual for the value of electricity and gas consumed from the meter reading date to the end of the reporting period. Unbilled retail revenue of the Group totalled HK\$3,470 million as at 31 December 2022.</p> <p>CLP Power Hong Kong Limited (CLP Power) calculates unbilled revenue using estimates including: consumption quantity based on the electricity sent-out adjusted by loss factors, the pattern of residential and non-residential consumption, weather and certain other factors.</p> <p>EnergyAustralia Holdings Limited (EnergyAustralia) calculates unbilled retail revenue based on the electricity purchased and the applicable tariffs for the mass market customer segment, as well as the actual meter readings and the contracted rates for commercial and industrial customers. The amount is adjusted for physical energy loss and other measurable factors.</p> <p>This is a Key Audit Matter because the calculation of unbilled retail revenue involves a high degree of estimation.</p>	<p>Our procedures in relation to unbilled revenue included:</p> <ul style="list-style-type: none"> > Understanding of and testing the key controls in place to determine the estimate of unbilled revenue for both CLP Power and EnergyAustralia; > Testing the volume of electricity sent-out by CLP Power to supporting information; > Assessing the reasonableness of estimates by comparing them against historical trends; > Testing the volume of electricity purchased by EnergyAustralia from the wholesale electricity market to the underlying Australian Energy Market Operator invoices on a sample basis and reconciling the total purchase volumes to revenue volumes; and > Understanding the estimates made relating to loss factors and tariffs used in determining the level of unbilled revenue for both CLP Power and EnergyAustralia and assessing their reasonableness by comparing them against historical trends and against the weighted average tariff for prices. <p>Based on the work performed, we found that the Group's unbilled revenue amount is supported by the available evidence.</p>

Key Audit Matter**How our audit addressed the Key Audit Matter**

The carrying values of EnergyAustralia's energy retail business and generation assets

Refer to notes 10 and 13 to the Group Financial Statements

The carrying value of EnergyAustralia's energy retail business

EnergyAustralia has goodwill of HK\$8,271 million relating to the energy retail business in Australia.

The recoverable amount of EnergyAustralia's energy retail business is determined based on a value in use calculation. Cash flow projections are derived from EnergyAustralia's approved business plan which includes cost saving initiatives and an appropriate reflection of future cash flows from potential legislative, regulatory and structural changes in the industry.

The key assumptions used in the value in use calculation include retail tariffs, electricity and gas volumes, network distribution costs, the customer account growth rate and the discount rate.

The results of the value in use calculation of EnergyAustralia's energy retail business indicates that minimal headroom remains. Any adverse shift in a key assumption is likely to result in a potential impairment.

This is a Key Audit Matter, because inputs to the value in use model require significant management judgements and a high degree of estimation. Changes in these key assumptions would have a direct impact on the valuation.

Our procedures in relation to management's assessment of the carrying value of EnergyAustralia's energy retail business included:

- > Assessing the appropriateness of the valuation methodologies used in the assessment of the recoverable amount;
- > Reconciling input data to supporting evidence, such as the approved business plan and where possible to publicly available market data;
- > Challenging the reasonableness of the key assumptions based on our knowledge of the business and industry;
- > Assessing the discount rate used in the assessment which has included the involvement of in-house valuation experts where appropriate;
- > Verifying the integrity of formulae and mathematical accuracy of management's valuation model;
- > Assessing the potential impact of reasonably possible changes in key assumptions including possible future regulatory policy changes with respect to retail sales of electricity in Australia; and
- > Reviewing the appropriateness of the Group's disclosures with respect to the impairment assessment.

Based on the work performed we found that the carrying value of EnergyAustralia's energy retail business is supported by the available evidence and the key assumptions have been appropriately disclosed in note 13 to the Group Financial Statements.

Key Audit Matter

The carrying values of EnergyAustralia's energy retail business and generation assets (continued)

The carrying value of EnergyAustralia's generation assets

The Group has substantial investments in fixed assets of HK\$12.9 billion relating to EnergyAustralia's generation business. These are tested for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable.

The carrying value of EnergyAustralia's generation assets are supported by scenarios which are produced to reflect a range of economic conditions that may exist over the life of the assets. The key assumptions included within the scenarios include an estimation of forward electricity pool prices (the forward curve), generation volumes, retail volumes, gas prices, long term assumptions around market movements, potential regulatory changes and the useful lives of the EnergyAustralia's generation assets.

Management has performed an assessment and confirmed that no impairment was required for EnergyAustralia's generation assets at 31 December 2022.

This is a Key Audit Matter because critical judgements exist in estimating forward electricity pool prices, volumes, gas prices and long term market assumptions.

How our audit addressed the Key Audit Matter

Our procedures in relation to management's assessment of the carrying value of EnergyAustralia's generation assets included:

- > Discussing EnergyAustralia's generation assets scenarios with management and understanding the key assumptions included within them;
- > Assessing the appropriateness of the assumptions used in the scenarios including the consideration of movements in the forward electricity pool prices and the gas prices, and the movements in the market inputs to available observable market data, where possible;
- > Comparing the historical forecasted generation and retail volumes with the actual volumes;
- > Assessing the useful lives of EnergyAustralia's assets to the committed asset closure of the assets;
- > Reconciling the generation asset scenarios to the approved business plan;
- > Assessing the potential impact of possible future regulatory policy changes in Australia; and
- > Reviewing the appropriateness of the Group's disclosures on generation assets.

Based on the work performed, we found that management's scenarios were supported by the available evidence.

Key Audit Matter**How our audit addressed the Key Audit Matter**

Fixed asset accounting and the calculation of the Scheme of Control permitted return

Refer to notes 10 and 11 to the Group Financial Statements

Consolidated fixed assets and right-of-use assets were HK\$154.8 billion at 31 December 2022. This includes fixed assets and leasehold land relating to CLP Power and Castle Peak Power Company Limited (CAPCO) (together the SoC Companies) (SoC fixed assets) which are the base used in the calculation of the permitted return under the Scheme of Control (SoC) Agreement.

The annual permitted return is 8% of the SoC Companies' average net fixed assets. If the gross tariff revenue in a period is less than or exceeds the total of the SoC operating costs, the permitted return and the taxation charges, such deficiency shall be deducted from, or such excess shall be added to, the Tariff Stabilisation Fund (TSF). In any period, the amount of deduction from or addition to the TSF is recognised as a revenue adjustment to the extent that the return and charges under the SoC are recognised in profit or loss.

This is a Key Audit Matter because of the significance of the balance and its importance to the SoC Companies. The accuracy of SoC fixed asset additions, disposals and depreciation charges is important to ensure the SoC fixed asset balance is appropriate and the permitted return is calculated correctly.

Our procedures in relation to the Group's SoC fixed assets and the calculation of the SoC permitted return included:

- > Assessing the control environment and testing controls over SoC fixed assets additions, disposals and depreciation charges;
- > Testing the SoC fixed asset additions in the year to supporting evidence on a sample basis and assessing whether the items have been appropriately capitalised;
- > Assessing the appropriateness of SoC capital accruals made by management for large projects by agreeing assumptions to audit evidence from the vendors;
- > Assessing the estimated useful lives of the SoC fixed assets for compliance with the SoC;
- > Testing depreciation charges by performing depreciation reasonableness tests;
- > Obtaining management's reconciliation of SoC fixed assets from the opening balance at the beginning of the year to the closing balance at the end of the year and reconciling this to the general ledger and supporting records;
- > Recalculating the SoC permitted return for the year; and
- > Recalculating the SoC adjustment to revenue for the year.

Based on the work performed, we found that the Group's SoC fixed asset accounting and the SoC permitted return calculation are supported by the available evidence.

Key Audit Matter

How our audit addressed the Key Audit Matter

Recoverability of trade receivables

Refer to note 19 to the Group Financial Statements

CLP Power and EnergyAustralia have significant retail businesses with many individual customers. The offtakers for the Group's other generation businesses are mainly a small number of state grid operators. The Group measures the loss allowance for its trade receivables at an amount equal to the lifetime expected credit losses.

Expected credit losses in CLP Power are close to zero as the trade receivables are mostly secured by cash deposits or bank guarantees from customers and have no recent history of default.

EnergyAustralia has trade receivables of HK\$6,036 million at 31 December 2022 against which provisions for expected credit losses of HK\$792 million are held. Management estimated the level of expected losses, by assessing future cash flows for each group of trade receivables including a probability weighted amount determined by evaluating a range of possible outcomes based on twelve month rolling historical credit loss experience by customer segment, geographical region, tenure and type of customer and applying that weighting to the receivables held at year end. The impact of economic factors, both current and future, is considered in assessing the likelihood of recovery from customers.

As at 31 December 2022, the Group had total receivables of HK\$2,111 million relating to unpaid Renewable National Subsidies in its Mainland China business. The expected credit loss is close to zero as continuous settlements have been noted with no history of default and the subsidy is funded by the Renewable Energy Development Fund set up and administered by the Ministry of Finance.

This is a Key Audit Matter because of the magnitude of the trade receivables balance and the significant judgement applied in assessing the allowance for expected credit losses.

Our procedures in relation to trade receivables included:

- Testing controls over the billing and collection cycles in CLP Power and EnergyAustralia;
- Testing the system calculated trade receivables ageing analysis used to assess the recoverability of receivables in CLP Power and EnergyAustralia;
- Assessing the appropriateness of the credit loss provisioning methodologies used by the Group;
- Assessing the estimates used to determine the expected credit losses by considering cash collection performance against historical trends and assessing the reasonableness of forward-looking factors included in the expected credit loss model;
- Reviewing the allocation of deposits to customer balances as a part of CLP Power's expected credit loss assessment;
- Reviewing the accuracy of management's judgements by comparing historical provisions against actual write-offs;
- Reviewing minutes of the boards of directors' meetings relating to the recoverability of trade receivables; and
- Discussion with management to understand the nature and the judgement involved in their determination that the expected credit loss on unpaid Renewable National Subsidies is close to zero, assessing the regulatory eligibility for the Group's projects and considering subsidies collected to-date.

Based on the work performed, we found that management's assessments of the recoverability of trade receivables are supported by the available evidence.

Asset retirement obligations (AROs)

Refer to note 26 to the Group Financial Statements

Provisions are held for estimated remediation costs, discounted to present value, where the Group has a legal or constructive obligation for remediation and the likelihood of an economic outflow is probable. Estimating the amount and timing of the obligation requires significant judgement. Management has assessed the Group's obligations for each asset based on the local regulatory environment and expected closure dates.

Management's key ARO judgements are as follows:

The Group's ARO provision of HK\$2,982 million mainly relates to land remediation and decommissioning of generation assets in Australia. The provisions are based on estimates by external and internal experts that are discounted using internally determined end of plant lives. Other significant judgements also include the timing of the asset removal and costs to remove infrastructure, remediate soil and groundwater, water usage and technological developments.

CLP Power expects that its transmission and distribution network will continue to be used for the distribution of electricity supply to its customers and considers it remote that the network will be removed from the existing land sites. Therefore, AROs have not been recognised for transmission and distribution assets.

CAPCO will retire the coal-fired generation units at Castle Peak "A" Station (CPA) between now to 2025. Management considers that the dismantling obligation for the CPA units is covered by the asset decommissioning liability accrued under the SoC as at 31 December 2022.

No provision for AROs has been recognised for the other generation units of CAPCO as the removal of CAPCO's other fossil-fuel generation units is possible and it is expected that should such obligation be incurred, it will be met by the liability accrued and the cost recovery mechanism under the SoC.

This is a Key Audit Matter because significant judgement is required in determining whether an ARO exists and estimating the amount and timing of the obligation.

Our procedures in relation to AROs included:

- > Assessing the appropriateness of the Group's accounting policy;
- > Evaluating management's judgement that it is remote that the Hong Kong transmission and distribution network would be removed from the existing land sites; it is probable that the CPA units will be removed; and it is possible but not probable that CAPCO's other fossil-fuel generation units may be removed at some point in time in the future;
- > Assessing management's judgements as to whether a contractual or constructive obligation exists based on the respective power purchase agreements, lease agreements, local laws and regulations and past practice;
- > Assessing the independence, objectivity and competence of management's external experts involved in respect of the future cost estimates for those assets where a provision has been recognised; and
- > Testing the appropriateness of management's estimates of future costs, the timing of payments and the discount rates where management has concluded that a legal or constructive obligation exists.

Based on the work performed, we found that the ARO provisions are supported by the available evidence.

Other Information

The directors of the Company are responsible for the other information. The other information comprises all of the information included in the annual report other than the Group Financial Statements and our auditor's report thereon.

Our opinion on the Group Financial Statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the Group Financial Statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Group Financial Statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Directors and the Audit & Risk Committee for the Group Financial Statements

The directors of the Company are responsible for the preparation of the Group Financial Statements that give a true and fair view in accordance with HKFRSs issued by the HKICPA and the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of Group Financial Statements that are free from material misstatement, whether due to fraud or error.

In preparing the Group Financial Statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The Audit & Risk Committee is responsible for overseeing the Group's financial reporting process on behalf of the Board of Directors.

Auditor's Responsibilities for the Audit of the Group Financial Statements

Our objectives are to obtain reasonable assurance about whether the Group Financial Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, in accordance with Section 405 of the Hong Kong Companies Ordinance and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these Group Financial Statements.

As part of an audit in accordance with HKSAAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the Group Financial Statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the Group Financial Statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the Group Financial Statements, including the disclosures, and whether the Group Financial Statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the Group Financial Statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Audit & Risk Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit & Risk Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Audit & Risk Committee, we determine those matters that were of most significance in the audit of the Group Financial Statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Yee Shia Yuen.



PricewaterhouseCoopers

Certified Public Accountants

Hong Kong, 27 February 2023

Consolidated Statement of Profit or Loss

for the year ended 31 December 2022

	<i>Note</i>	2022 HK\$M	2021 HK\$M
Revenue	2	100,662	83,959
Expenses			
Purchases and distributions of electricity and gas		(40,710)	(28,752)
Staff expenses		(4,668)	(5,107)
Fuel and other operating expenses		(41,096)	(28,581)
Depreciation and amortisation		(8,904)	(9,308)
		(95,378)	(71,748)
Other charges	4	(4,312)	(1,110)
Operating profit	5	972	11,101
Finance costs	6	(2,085)	(1,744)
Finance income	6	243	108
Share of results, net of income tax			
Joint ventures	14	325	(97)
Associates	15	2,135	2,071
Profit before income tax		1,590	11,439
Income tax expense	7	(103)	(1,965)
Profit for the year		1,487	9,474
Earnings attributable to:			
Shareholders		924	8,491
Perpetual capital securities holders		139	138
Other non-controlling interests		424	845
		1,487	9,474
Earnings per share, basic and diluted	9	HK\$0.37	HK\$3.36

The notes and disclosures on pages 238 to 304 are an integral part of these consolidated financial statements.

Consolidated Statement of Profit or Loss and Other Comprehensive Income

for the year ended 31 December 2022

	<i>Note</i>	2022 HK\$M	2021 HK\$M
Profit for the year		1,487	9,474
Other comprehensive income			
Items that can be reclassified to profit or loss			
Exchange differences on translation		(4,608)	(879)
Cash flow hedges		1,310	934
Costs of hedging		(171)	(109)
Share of other comprehensive income of joint ventures		(1)	(4)
Translation and other reserves reclassified upon sale of subsidiaries	4(a)	2,505	-
Translation reserve reclassified upon sale of a joint venture	5(e)	18	-
		(947)	(58)
Items that cannot be reclassified to profit or loss			
Fair value (losses)/gains on investments		(73)	100
Remeasurement gains on defined benefit plans		10	77
		(63)	177
Other comprehensive income for the year, net of tax		(1,010)	119
Total comprehensive income for the year		477	9,593
Total comprehensive income attributable to:			
Shareholders		250	8,660
Perpetual capital securities holders		139	138
Other non-controlling interests		88	795
		477	9,593

The notes and disclosures on pages 238 to 304 are an integral part of these consolidated financial statements.

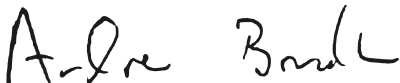
Consolidated Statement of Financial Position

as at 31 December 2022

	<i>Note</i>	2022 HK\$M	2021 HK\$M
Non-current assets			
Fixed assets	10	147,267	154,058
Right-of-use assets	11	7,582	7,130
Investment property	12	909	966
Goodwill and other intangible assets	13	18,451	19,710
Interests in and loans to joint ventures	14	11,748	10,602
Interests in associates	15	9,090	8,769
Deferred tax assets	24	2,132	376
Derivative financial instruments	16	1,943	2,007
Other non-current assets	17	2,443	2,303
		201,565	205,921
Current assets			
Inventories – stores and fuel		3,696	2,941
Renewable energy certificates		804	1,166
Properties for sale / under development	18	2,711	2,980
Trade and other receivables	19	17,314	15,404
Income tax recoverable		–	546
Fuel clause account	21	3,543	1,116
Derivative financial instruments	16	2,107	1,475
Short-term deposits and restricted cash	20	35	61
Cash and cash equivalents	20	4,251	8,199
		34,461	33,888
Current liabilities			
Customers' deposits	19(a)	(6,633)	(6,254)
Trade payables and other liabilities	22	(19,627)	(18,381)
Income tax payable		(1,577)	(1,349)
Bank loans and other borrowings	23	(11,314)	(10,512)
Derivative financial instruments	16	(5,310)	(1,302)
		(44,461)	(37,798)
Net current liabilities		(10,000)	(3,910)
Total assets less current liabilities		191,565	202,011

	<i>Note</i>	2022 HK\$M	2021 HK\$M
Financed by:			
Equity			
Share capital	27	23,243	23,243
Reserves	28	82,255	89,791
Shareholders' funds		105,498	113,034
Perpetual capital securities	29	3,887	3,887
Other non-controlling interests	29	6,309	9,788
		115,694	126,709
Non-current liabilities			
Bank loans and other borrowings	23	47,903	47,703
Deferred tax liabilities	24	16,246	15,886
Derivative financial instruments	16	1,405	1,364
Scheme of Control (SoC) reserve accounts	25	3,094	3,440
Asset decommissioning liabilities and retirement obligations	26	4,375	4,346
Other non-current liabilities		2,848	2,563
		75,871	75,302
Equity and non-current liabilities		191,565	202,011

 The Company's statement of financial position is presented in Note 33.



Andrew Brandler
Vice Chairman



Richard Lancaster
Chief Executive Officer



Nicolas Tissot
Chief Financial Officer

Hong Kong, 27 February 2023

The notes and disclosures on pages 238 to 304 are an integral part of these consolidated financial statements.

Consolidated Statement of Changes in Equity

for the year ended 31 December 2022

	Attributable to Shareholders			Perpetual Capital Securities	Other Non- controlling Interests	Total Equity
	Share Capital	Reserves	Total			
	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M
Balance at 1 January 2021	23,243	88,957	112,200	3,887	9,885	125,972
Profit for the year	-	8,491	8,491	138	845	9,474
Other comprehensive income for the year	-	169	169	-	(50)	119
Transfer to fixed assets	-	6	6	-	2	8
Dividends paid						
2020 fourth interim	-	(3,057)	(3,057)	-	-	(3,057)
2021 first to third interim	-	(4,775)	(4,775)	-	-	(4,775)
Distributions to perpetual capital securities holders	-	-	-	(138)	-	(138)
Dividends paid to other non-controlling interests	-	-	-	-	(894)	(894)
Balance at 31 December 2021	23,243	89,791	113,034	3,887	9,788	126,709
Balance at 1 January 2022	23,243	89,791	113,034	3,887	9,788	126,709
Profit for the year	-	924	924	139	424	1,487
Other comprehensive income for the year	-	(674)	(674)	-	(336)	(1,010)
Transfer to fixed assets	-	46	46	-	19	65
Sales of subsidiaries (Note 4(a))	-	-	-	-	(2,628)	(2,628)
Dividends paid						
2021 fourth interim	-	(3,057)	(3,057)	-	-	(3,057)
2022 first to third interim	-	(4,775)	(4,775)	-	-	(4,775)
Distributions to perpetual capital securities holders	-	-	-	(139)	-	(139)
Dividends paid to other non-controlling interests	-	-	-	-	(958)	(958)
Balance at 31 December 2022	23,243	82,255	105,498	3,887	6,309	115,694

The notes and disclosures on pages 238 to 304 are an integral part of these consolidated financial statements.

Consolidated Statement of Cash Flows

for the year ended 31 December 2022

		2022		2021	
	Note	HK\$M	HK\$M	HK\$M	HK\$M
Operating activities					
Net cash inflow from operations	30(A)	13,555		20,223	
Interest received		153		104	
Income tax paid		(974)		(2,521)	
Net cash inflow from operating activities			12,734		17,806
Investing activities					
Capital expenditure		(14,553)		(12,431)	
Capitalised interest and other finance costs paid		(409)		(298)	
Proceeds from disposal of fixed assets		49		104	
Additions of other intangible assets		(330)		(512)	
Acquisition of a subsidiary		-		(663)	
Sale of subsidiaries	4(a)	(1,245)		55	
Cash consideration		625		55	
Cash and cash equivalents disposed of		(1,870)		-	
Litigation settlement related to disposal of Iona Gas Plant		-		(1,110)	
Prepayment for purchase of a property		(338)		(338)	
Increase in other financial assets		(165)		(184)	
Increase in investments in and loans to joint ventures		(788)		(512)	
Decrease in investments in and loans to joint ventures		-		293	
Proceeds from sale of a joint venture		-		307	
Dividends received from					
Joint ventures		495		835	
Associates		1,831		1,721	
Equity investments		14		15	
Decrease in bank deposits with maturities of more than three months		57		931	
Net cash outflow from investing activities			(15,382)		(11,787)
Net cash (outflow) / inflow before financing activities			(2,648)		6,019
Financing activities					
	30(B)				
Proceeds from long-term borrowings		20,121		7,796	
Repayment of long-term borrowings		(12,782)		(5,329)	
Increase in short-term borrowings		2,957		314	
Payment of principal portion of lease liabilities		(261)		(271)	
Interest and other finance costs paid		(1,854)		(1,575)	
Settlement of derivative financial instruments		(267)		(366)	
Increase / (decrease) in advances from other non-controlling interests		28		(189)	
Distributions paid to perpetual capital securities holders		(139)		(138)	
Dividends paid to shareholders		(7,832)		(7,832)	
Dividends paid to other non-controlling interests		(958)		(894)	
Net cash outflow from financing activities			(987)		(8,484)
Net decrease in cash and cash equivalents			(3,635)		(2,465)
Cash and cash equivalents at beginning of year			8,199		10,694
Effect of exchange rate changes			(313)		(30)
Cash and cash equivalents at end of year	20		4,251		8,199

The notes and disclosures on pages 238 to 304 are an integral part of these consolidated financial statements.

Significant Accounting Policies

Significant accounting policies are included in the corresponding notes to the financial statements or set out below.

1. Basis of Preparation

The Company, CLP Holdings Limited, and its subsidiaries are collectively referred to as the Group in the consolidated financial statements.

The consolidated financial statements have been prepared in accordance with Hong Kong Financial Reporting Standards (HKFRS) issued by the Hong Kong Institute of Certified Public Accountants (HKICPA) and requirements of the Hong Kong Companies Ordinance (Cap.622).

The preparation of the consolidated financial statements in conformity with HKFRS requires the use of certain critical accounting estimates. It also requires management to exercise their judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are especially significant to the consolidated financial statements, are disclosed in relevant notes to the financial statements.

2. Changes in Significant Accounting Policies

(A) Amendments of standards first time adopted in 2022

There have been a number of amendments to standards effective in 2022. Amendments which are applicable to the Group include:

- Amendments to HKFRS 3 Reference to the Conceptual Framework;
- Amendments to HKFRS 9 Fees in the '10 per cent' Test for Derecognition of Financial Liabilities: clarify that an entity includes in the 10 per cent test only fees paid or received between the entity and the lender, including fees paid or received by either the entity or the lender on the other's behalf;
- Amendments to HKAS 16 Property, Plant and Equipment – Proceeds before Intended Use: the standard is amended that proceeds from selling items before the related property, plant and equipment is available for its intended use should be recognised in profit or loss, together with the costs of producing those items; and
- Amendments to HKAS 37 Onerous Contracts – Cost of Fulfilling a Contract: clarify that the 'costs of fulfilling a contract' comprise both the incremental costs and an allocation of other direct costs.

The Group has applied the above amendments for the first time in 2022. The adoption of these amendments has had no significant impact on the results and financial position of the Group. The Group does not have to change its accounting policies or make retrospective adjustments as a result of adopting these amendments.

The Group also implemented the IFRS Interpretations Committee agenda decision on demand deposits with restriction on use which has resulted in the re-presentation of the comparatives of HK\$299 million from restricted cash classification to cash and cash equivalents on the consolidated statement of financial position and the related update of the 2021 consolidated statement of cash flows. Such amount was related to the deposits under the trust accounts of which the restrictions did not preclude the Group to withdraw the balance on demand.

2. Changes in Significant Accounting Policies (continued)

(B) Amendments to standards and revised interpretation effective after 2022

The following amendments to standards and revised interpretation, which may be applicable to the Group, have been issued and are effective after 2022. The Group has not elected to early adopt these pronouncements in 2022. These pronouncements are not expected to have a material impact on the results or the financial position of the Group.

- > Amendments to HKAS 1 Classification of Liabilities as Current or Non-current
- > Amendments to HKAS 1 and HKFRS Practice Statement 2 Disclosure of Accounting Policies
- > Amendments to HKAS 8 Definition of Accounting Estimates
- > Amendments to HKAS 12 Deferred Tax related to Assets and Liabilities arising from a Single Transaction
- > Amendments to HKFRS 10 and HKAS 28 Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
- > Amendments to HKFRS 16 Lease liability in a Sale and Leaseback
- > HK Interpretation 5 (Revised) Presentation of Financial Statements – Classification by the Borrower of a Term Loan that Contains a Repayment on Demand Clause

3. Consolidation and Equity Accounting

(A) Basis of consolidation

The consolidated financial statements of the Group incorporate the financial statements of the Company and its subsidiaries up to 31 December and include the Group's interests in joint ventures and associates on the basis set out in (B) below.

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity.

The financial statements of subsidiaries acquired during the year are included in the consolidated financial statements from the date on which control is transferred to the Group. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between Group entities are eliminated on consolidation. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Where necessary, to ensure consistency with the policies adopted by the Group, adjustments are made to the financial statements of subsidiaries, joint ventures and associates.

(B) Joint ventures and associates

A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

An associate is an entity over which the Group has significant influence but not control nor joint control over the financial and operating policies, generally accompanying a shareholding of between 20% and 50% of the voting rights.

Investments in joint ventures / associates are accounted for using the equity method. They are initially recognised at cost. Subsequent to initial recognition, the consolidated financial statements include the Group's share of post-acquisition profit or loss and other comprehensive income, until the date on which joint control or significant influence ceases. Distributions received from an investee reduce the carrying amounts of the investments.

3. Consolidation and Equity Accounting (continued)

(C) Joint operations

A joint operation is an arrangement in which the Group has joint control (as explained in (B) above), whereby the Group has rights to the assets and obligations for the liabilities, relating to the arrangement. When the Group undertakes its activities under a joint operation, the Group as a joint operator recognises its direct right to, and its share of jointly held assets, liabilities, revenues and expenses of the joint operation. They are incorporated in the financial statements under appropriate headings.

(D) Change in ownership interests

Transactions with non-controlling interests that do not result in a loss of control are treated as transactions with equity owners of the Group. A change in ownership interest results in an adjustment between the carrying amounts of the controlling and non-controlling interests to reflect their relative interests in the subsidiary. Any difference between the amount of the adjustment to non-controlling interests and any consideration paid or received, and the reattribution of other comprehensive income to non-controlling interests are recognised in a separate reserve within equity attributable to owners of the Group.

When the Group ceases to consolidate or equity account for an investment because of a loss of control, joint control or significant influence, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. This fair value becomes the initial carrying amount for the purpose of subsequent accounting for the retained interest as a joint venture, associate or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are reclassified to profit or loss. Gains or losses on disposals are recognised in profit or loss.

If the ownership interest in a joint venture or associate is reduced, it is possible that joint control or significant influence is retained or a joint venture becomes an associate. As the Group continues to apply the equity method under both cases, the retained interest is not remeasured. However, a proportionate share of the amounts previously recognised in other comprehensive income of the investment is reclassified to profit or loss where appropriate.



A quick guide to the classification of equity investments:

Control → Subsidiary

Joint control → Joint venture / joint operation

Significant influence → Associate

Less than significant influence → Equity investment

4. Impairment of Non-Financial Assets

Non-financial assets that have indefinite useful lives are not subject to amortisation. They are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable and, in any case, at least annually. Non-financial assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

For the purposes of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows (cash generating units (CGUs)). Goodwill arising from a business combination is allocated to CGUs that are expected to benefit from the synergies of the combination. An impairment loss is recognised for the amount by which the carrying amount of an asset or a CGU exceeds its recoverable amount. The recoverable amount is the higher of the fair value of an asset or a CGU less costs of disposal and its value in use.

An impairment loss recognised in prior years for an asset other than goodwill shall be reversed if, and only if, there is a favourable change in the estimates used to determine the recoverable amount of an asset. A reversal of the impairment loss is limited to the asset's carrying amount (net of accumulated amortisation or depreciation) that would have been determined had no impairment loss been recognised in prior years.

5. Inventory

Inventory comprises stores and fuel and is stated at the lower of cost and net realisable value. Cost is calculated on a weighted average basis. Net realisable value is determined on the basis of anticipated sales proceeds less estimated selling expenses.

6. Renewable Energy Products

Renewable energy and energy efficiency schemes operate through the creation, trade and surrender of energy products. Renewable energy certificates are recognised upon the risks and rewards being transferred to the Group and are measured at the lower of cost or net realisable value. Cost is calculated on a weighted average basis.

7. Employee Benefits

(A) Defined contribution plans

The Group operates and/or participates in a number of defined contribution plans. The assets of these plans are held in separate trustee-administered funds. The pension plans are funded by payments from employees and by participating companies of the Group, and provide benefits linked to contributions and investment returns on the plans. The Group has no further legal or constructive payment obligations if the fund does not hold sufficient assets to pay all employees the benefit relating to employee service in the current and prior periods, once the contributions have been paid.

Forfeited contributions (by employers on behalf of employees who leave the scheme prior to vesting fully in such contributions) are not used to offset existing contributions but are credited to a reserve account of that provident fund, and are available for distribution at the discretion of the relevant employers.

Contributions to the defined contribution plans are recognised as expenses in the year to which the contributions relate, except to the extent that they are capitalised as part of the cost of qualifying assets.

(B) Defined benefit plans

The Group, through its subsidiaries, operates funded defined benefit plans for qualifying employees in Australia. Under the plans, the employees are entitled to lump sum benefits on retirement, death, disablement and withdrawal. The level of benefits provided depends on employees' years of service and final average salary. Plan assets held in trusts are governed by local regulations and practice in each country.

The cost of providing benefits under the defined benefit plans is determined using the projected unit credit actuarial valuation method. Past service costs are recognised immediately in profit or loss. Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are recognised directly in other comprehensive income.

The defined benefit asset recognised in the consolidated statement of financial position represents the surplus of the fair value of plan assets over the present value of the defined benefit obligation at the end of the reporting period.

(C) Incentive bonus and employee leave entitlement

Provisions are made for the estimated liability for incentive bonus and employee leave entitlement as a result of services rendered by employees up to the end of the reporting period, where there is a contractual obligation or past practice that has created a constructive obligation.

8. Foreign Currency Translation

Items included in the financial statements of each of the Group entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The consolidated financial statements are presented in Hong Kong dollar, which is the Group's presentation currency.

Foreign currency transactions are translated into the relevant functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies by using the exchange rates at the end of the reporting period are recognised in profit or loss, except when deferred in other comprehensive income as qualifying cash flow hedges or qualifying net investment hedges.


For subsidiaries, joint ventures and associates that have a functional currency different from the Group's presentation currency for the purpose of consolidation, assets and liabilities for each statement of financial position presented are translated using the closing rates at the end of the reporting period, and income and expenses for each statement of profit or loss and other comprehensive income presented are translated at the average exchange rates for the reporting period (unless this average rate is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the date of the transactions).


All resulting exchange differences are recognised in other comprehensive income and as a separate component of equity. Reclassifications of gains or losses previously recognised in other comprehensive income to profit or loss are translated by using the exchange rate at the date of reclassification. The remaining reserve balances are translated using the closing rates at the end of the reporting period. Any exchange differences arising from these are taken to retained profits directly.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated using the closing rates at the end of the reporting period.

Upon disposal of a foreign operation (that is, a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary / loss of joint control over a joint venture / loss of significant influence over an associate that includes a foreign operation), all of the exchange differences accumulated in equity in respect of that operation are reclassified to profit or loss.

In the case of a partial disposal that does not result in the Group losing control over a subsidiary that includes a foreign operation, the proportionate share of accumulated exchange differences is re-attributed to non-controlling interests and is not recognised in profit or loss. For all other partial disposals (that is, reductions in the Group's ownership interest in a joint venture or associate that do not result in the Group losing joint control or significant influence) the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

 Monetary assets and liabilities are assets to be received and liabilities to be paid in fixed amounts. For example, a trade receivable is a monetary asset (the amount to be received is fixed) but a fixed asset is not a monetary asset because it is uncertain how much you will receive if the fixed asset is sold.

 An entity can have both functional currency and presentation currency, however, a consolidation group can only have presentation currency but not functional currency. This is because presentation currency is a matter of choice but functional currency is based on the different primary economic environment in which each group entity operates.

9. Leases

The Group assesses at contract inception whether the contract is, or contains, a lease. A contract is, or contains, a lease if it conveys the right to control the use of an identified asset for a period of time in exchange for a consideration. A contract conveys the right to control the use of an identified asset if the customer has both the right to obtain substantially all the economic benefits from the use of the identified asset and the right to direct the use of the identified asset.

For the Group as a lessor, leases in which the Group does not transfer substantially all the risks and rewards incidental to the ownership of an underlying asset to the customer, are classified as operating lease arrangements. The respective lease assets are included in the financial statements according to their nature. Operating lease payments which vary with operation parameters are recognised as revenue in the period in which they are earned.

For the Group as a lessee, the Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets which are recognised as expenses on a straight-line basis over the lease terms. The Group recognises lease liabilities representing the obligation to make lease payments and right-of-use assets representing the right to use the underlying assets.

10. Contingent liabilities

Contingent liabilities are possible obligations that arise from past events and whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events not wholly within the control of the Group. Where it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow of economic benefits is remote.

11. Disposal group held for sale

Disposal group comprising assets and liabilities is classified as held for sale when its carrying amount is to be recovered principally through sale rather than through continuing use and a sale is considered highly probable. Disposal group is stated at the lower of its carrying amount and fair value less costs to sell.

Any loss on measurement of a disposal group is allocated first to goodwill, and then to the assets in the disposal group on a pro-rata basis, except for deferred tax assets and financial assets that are not within the scope of measurement requirement of HKFRS 5 Non-current Assets Held for Sale and Discontinued Operations. Losses on initial classification as held for sale and subsequent gains and losses on remeasurement are recognised in profit or loss. Once the disposal group is classified as held for sale, its non-current assets are no longer amortised or depreciated.



Our interest in Apraava Energy was accounted for as disposal group held for sale since June 2022 till the completion of the sell down in late December 2022. Please refer to Note 4(a) for the application of HKFRS 5 to CLP.

Notes to the Financial Statements

1. General Information

The Company is a limited liability company incorporated in Hong Kong and listed on the Stock Exchange of Hong Kong. The principal activity of the Company is investment holding, and the principal activities of the subsidiaries are generation and supply of electricity in Hong Kong, Mainland China and Australia, and investment holding of power projects in Mainland China, India, Southeast Asia and Taiwan.

The financial operations of the Company's major subsidiaries, CLP Power Hong Kong Limited (CLP Power) and Castle Peak Power Company Limited (CAPCO) (collectively referred to as SoC Companies), are governed by a SoC Agreement entered into with the Hong Kong Government. Our electricity business in Hong Kong is therefore also referred to as the SoC business. The main features of the current SoC are summarised on pages 305 and 306, which are unaudited.

The consolidated financial statements were approved for issue by the Board of Directors on 27 February 2023.

Australia business update in 2022

During the year, extreme and exceptional price surges have occurred in the Australian National Electricity Market (NEM) driven by the confluence of the unavailability of major coal-fired power stations and high fuel prices. As a consequence, forward electricity prices have been elevated as compared to historic levels and resulted in an unrealised fair value loss on our electricity forward contracts not qualifying for hedge accounting of HK\$4,196 million (A\$774 million), after tax HK\$2,937 million (A\$542 million) included in fuel and other operating expenses for the year. In addition, while generation revenue has increased in 2022, the operating earnings in Australia (before the unrealised fair value loss) reduced by HK\$2,581 million as compared with 2021 mainly due to short positions caused by lower generation from Yallourn because of unplanned outages and Mount Piper due to coal supply constraints. Collectively the unrealised fair value loss and the operating challenges were the primary reasons for the significant decrease in Group's earnings for the year.

In addition, substantial margin account requirements were met to cover the net sold position on open futures contracts which led to significant increase in other receivables (Note 19) at year end and negatively impacted our operating cash flow for the year. More information of our Australia business can be found on "Business Performance and Outlook" on pages 53 to 58 of the Annual Report.

2. Revenue

Accounting Policy

(A) Revenue from contracts with customers

Revenues from sales of electricity and gas are recognised when electricity and gas are supplied to and consumed by the customers. Revenues are measured at the amounts billed to the customers based on the periodic cycle meter readings and the estimated accruals for the value of electricity and gas consumed from the meter reading date to the end of the reporting period ("unbilled revenue").

(B) Revenue from sales of properties

Revenue from sales of properties is recognised when the control of asset is transferred to the customer, being at the point in time the physical possession or the legal title of the completed property, and the Group has present right to payment and the collection of the consideration is probable.

(C) Other revenue

Revenue from power purchase agreements represents operating lease income comprising capacity charge and energy charge. Capacity charge is recognised to the extent that capacity has been made available to the offtakers during the year. Energy charge is recognised when electricity is supplied.

2. Revenue (continued)

Critical Accounting Estimates and Judgements: Unbilled Retail Revenue

The Group records revenues from retail energy sales using the accrual accounting method. In Hong Kong, the unbilled retail revenue is calculated using estimates including consumption quantity based on electricity sent-out adjusted by loss factors, pattern of residential and non-residential consumption, weather and certain other factors. In Australia, the unbilled retail revenue is calculated based on the electricity purchased and applicable tariffs for the mass market customers, as well as actual meter readings and contracted rates for commercial and industrial customers. The amount is adjusted for physical energy loss and other measurable factors. Unbilled retail revenue of the Group (included in trade and other receivables) totalled HK\$3,470 million at 31 December 2022 (2021: HK\$3,186 million).

The Group's revenue primarily represents sales of electricity and gas, which is recognised over time, and is disaggregated as follows:

	2022 HK\$M	2021 HK\$M
Revenue from contracts with customers		
Sales of electricity in Hong Kong	50,919	45,222
Transfer for SoC from revenue (Note 25(A))	(604)	(1,183)
SoC sales of electricity	50,315	44,039
Sales of electricity outside Hong Kong	39,186	29,719
Sales of gas in Australia	5,183	5,121
Sales of properties in Hong Kong	421	–
Others	1,459	1,174
	96,564	80,053
Other revenue		
Power purchase agreements		
Fixed capacity charge	400	593
Variable capacity charge	275	267
Energy charge	3,087	2,704
Others	336	342
	4,098	3,906
	100,662	83,959

3. Segment Information

Accounting Policy

Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Executive Officer, who is the chief operating decision-maker of the Group. In accordance with the Group's internal organisation and reporting structure, the operating segments are based on geographical regions.

Segment revenue is based on the geographical region in which the electricity is generated and/or services are rendered. Segment capital additions represent the total costs incurred during the year to acquire fixed assets and other segment assets that are expected to be used for more than one year. Unallocated items comprise mainly corporate expenses, corporate assets, and the Company's liquid funds and borrowings.

Substantially all the principal activities of the Group in each region are for the generation and supply of electricity which are managed and operated on an integrated basis.

The Group operates, through its subsidiaries, joint ventures and associates, in five major geographical regions – Hong Kong, Mainland China, Australia, India and Southeast Asia and Taiwan.

3. Segment Information (continued)


	Hong Kong HK\$M	Mainland China HK\$M	Australia HK\$M	India HK\$M	Southeast Asia & Taiwan HK\$M	Unallocated Items HK\$M	Total HK\$M
For the year ended 31 December 2022							
Revenue from contracts with customers	51,638	1,824	41,778	1,320	4	-	96,564
Other revenue	138	53	61	3,833	-	13	4,098
Revenue	51,776	1,877	41,839	5,153	4	13	100,662
EBITDAF	17,541	1,260	(695)	(2,887)	(6)	(1,087)	14,126
Share of results, net of income tax							
Joint ventures	(21)	327	-	-	19	-	325
Associates	-	2,135	-	-	-	-	2,135
Consolidated EBITDAF	17,520	3,722	(695)	(2,887)	13	(1,087)	16,586
Depreciation and amortisation	(5,388)	(814)	(2,368)	(283)	-	(51)	(8,904)
Fair value adjustments	(54)	-	(4,196)	-	-	-	(4,250)
Finance costs	(973)	(245)	(345)	(498)	-	(24)	(2,085)
Finance income	136	9	34	46	-	18	243
Profit/(loss) before income tax	11,241	2,672	(7,570)	(3,622)	13	(1,144)	1,590
Income tax (expense)/credit	(1,893)	(356)	2,303	(155)	(2)	-	(103)
Profit/(loss) for the year	9,348	2,316	(5,267)	(3,777)	11	(1,144)	1,487
Earnings attributable to							
Perpetual capital securities holders	(139)	-	-	-	-	-	(139)
Other non-controlling interests	(848)	(9)	-	433	-	-	(424)
Earnings/(loss) attributable to shareholders	8,361	2,307	(5,267)	(3,344)	11	(1,144)	924
Excluding: Items affecting comparability	(23)	185	-	3,537	-	-	3,699
Operating earnings	8,338	2,492	(5,267)	193	11	(1,144)	4,623
Capital additions	12,283	588	2,335	620	-	29	15,855
Impairment provisions							
Receivables and others	13	30	195	27	-	-	265
At 31 December 2022							
Fixed assets, right-of-use assets and investment property	132,791	9,158	13,628	-	-	181	155,758
Goodwill and other intangible assets	5,545	3,396	9,510	-	-	-	18,451
Interests in and loans to joint ventures	1,910	5,138	-	3,106	1,594	-	11,748
Interests in associates	-	9,090	-	-	-	-	9,090
Deferred tax assets	3	83	2,046	-	-	-	2,132
Other assets	14,446	6,510	16,489	632	72	698	38,847
Total assets	154,695	33,375	41,673	3,738	1,666	879	236,026
Bank loans and other borrowings	48,559	5,531	5,127	-	-	-	59,217
Current and deferred tax liabilities	16,586	1,191	14	-	32	-	17,823
Other liabilities	26,856	931	15,002	3	2	498	43,292
Total liabilities	92,001	7,653	20,143	3	34	498	120,332



EBITDAF stands for earnings before interest, taxes, depreciation and amortisation, and fair value adjustments. For this purpose, fair value adjustments include fair value gains or losses on non-debt related derivative financial instruments relating to transactions not qualified for hedge accounting, ineffectiveness and de-designation of cash flow hedges.

3. Segment Information (continued)

	Hong Kong HK\$M	Mainland China HK\$M	Australia HK\$M	India HK\$M	Southeast Asia & Taiwan HK\$M	Unallocated Items HK\$M	Total HK\$M
For the year ended 31 December 2021							
Revenue from contracts with customers	44,869	1,747	32,215	1,218	4	-	80,053
Other revenue	125	53	56	3,648	-	24	3,906
Revenue	44,994	1,800	32,271	4,866	4	24	83,959
EBITDAF	17,471	1,539	1,230	1,189	296	(819)	20,906
Share of results, net of income tax							
Joint ventures	(20)	(271)	-	-	194	-	(97)
Associates	-	2,071	-	-	-	-	2,071
Consolidated EBITDAF	17,451	3,339	1,230	1,189	490	(819)	22,880
Depreciation and amortisation	(5,507)	(807)	(2,327)	(617)	-	(50)	(9,308)
Fair value adjustments	(20)	-	(477)	-	-	-	(497)
Finance costs	(907)	(253)	(133)	(436)	-	(15)	(1,744)
Finance income	39	14	7	42	-	6	108
Profit/(loss) before income tax	11,056	2,293	(1,700)	178	490	(878)	11,439
Income tax (expense)/credit	(2,040)	(329)	524	(52)	(68)	-	(1,965)
Profit/(loss) for the year	9,016	1,964	(1,176)	126	422	(878)	9,474
Earnings attributable to							
Perpetual capital securities holders	(138)	-	-	-	-	-	(138)
Other non-controlling interests	(789)	(3)	-	(53)	-	-	(845)
Earnings/(loss) attributable to							
shareholders	8,089	1,961	(1,176)	73	422	(878)	8,491
Excluding: Items affecting comparability	34	-	1,093	148	(249)	-	1,026
Operating earnings	8,123	1,961	(83)	221	173	(878)	9,517
Capital additions	10,443	826	2,666	174	-	47	14,156
Impairment provisions							
Fixed assets	-	-	-	330	-	-	330
Receivables and others	11	-	214	31	-	-	256
At 31 December 2021							
Fixed assets, right-of-use assets and investment property	126,255	9,960	14,551	11,175	-	213	162,154
Goodwill and other intangible assets	5,545	3,675	10,476	14	-	-	19,710
Interests in and loans to joint ventures	1,191	7,531	-	-	1,880	-	10,602
Interests in associates	-	8,769	-	-	-	-	8,769
Deferred tax assets	5	88	246	37	-	-	376
Other assets	12,737	5,375	12,566	3,985	72	3,463	38,198
Total assets	145,733	35,398	37,839	15,211	1,952	3,676	239,809
Bank loans and other borrowings	46,351	5,856	-	6,008	-	-	58,215
Current and deferred tax liabilities	15,655	1,220	7	318	35	-	17,235
Other liabilities	24,291	1,252	11,153	467	2	485	37,650
Total liabilities	86,297	8,328	11,160	6,793	37	485	113,100

 Items affecting comparability refer to significant unusual events such as acquisition/disposal, impairment of non-current assets, property valuation gain/loss, provision for legal disputes and change in law or natural catastrophe. They have no impact in assessing the underlying operating performance of the Group and are separately disclosed to allow a better understanding and comparison of the financial results. Details of the items affecting comparability can be found on page 30.

4. Other Charges

	2022 HK\$M	2021 HK\$M
Loss on sale of subsidiaries ^(a)	4,312	-
The Settlement ^(b)	-	1,110
	4,312	1,110

Notes:

- (a) In late December 2022, CLP GPEC (Mauritius) Holdings Limited, an indirect wholly-owned subsidiary of the Company, completed the sale of 10% shareholding in Apraava Energy Private Limited (Apraava Energy) in India to CDPQ Infrastructures Asia II Pte. Ltd. for a total consideration of US dollar equivalent of Rs6.6 billion (HK\$625 million) (the "Sell Down"). The Group's equity interest in Apraava Energy was reduced from 60% to 50%. Apraava Energy and its subsidiaries (Apraava Energy group) ceased to be subsidiaries (deconsolidated from the date of disposal) and became a joint venture of the Group.

Apraava Energy group was presented as a disposal group held for sale on 30 June 2022 and losses of HK\$1,635 million (CLP's share: HK\$986 million) on measurement of the disposal group to the lower of its carrying amount and its fair value less costs to sell were recognised and included as part of the loss on sale of subsidiaries. The measurement losses have been applied to reduce the carrying amounts of goodwill and fixed assets within the disposal group.

Calculation of the loss on sale of subsidiaries is as follows:

	HK\$M
<u>On reclassification to asset held for sale</u>	
Loss on measurement of the disposal group upon initial classification	(1,635)
<u>On completion of the Sell Down (i.e. date of disposal)</u>	
Cash consideration for sale of 10% interest	625
Fair value of 50% interest retained (i.e. joint venture) (Note 14)	3,106
Carrying value of 40% non-controlling interest	2,628
Less: Carrying amount of net assets disposed of *	(6,531)
Reclassification of CLP's share of reserves to profit or loss	
Translation reserve	(2,515)
Cash flow hedge reserve	10
Loss on disposal upon completion of the Sell Down	(2,677)
Total loss on sale of subsidiaries [#]	(4,312)

* Adjusted for loss on measurement of Apraava Energy group upon initial classification as a disposal group held for sale in June 2022

[#] Total loss on sale of subsidiaries attributable to shareholders amounted to HK\$3,663 million

- (b) In March 2021, full and final settlement of all claims made by Lochard Energy (Iona Operations Holding) Pty Ltd against EnergyAustralia Holdings Limited (EnergyAustralia) arising from the disposal of Iona Gas Plant ("The Settlement") was paid.

5. Operating Profit

Operating profit is stated after charging / (crediting) the following:

	2022 HK\$M	2021 HK\$M
Charging		
Retirement benefits costs ^(a)	473	510
Auditors' remuneration		
Audit services		
PricewaterhouseCoopers	42	41
Other auditor ^(b)	3	2
Permissible audit related and non-audit services		
PricewaterhouseCoopers ^(c)	12	10
Other auditor ^(b)	-	-
Variable lease expenses	21	15
Cost of properties sold	325	-
Net losses on disposal of fixed assets	241	386
Impairment of		
Fixed assets ^(d)	-	330
Inventories – stores and fuel	10	12
Trade receivables	255	244
Revaluation loss on investment property	57	34
Loss / (gain) on sale of a joint venture ^(e)	185	(307)
Morwell River Diversion solution ^(f)	-	452
Fair value losses / (gains) on investments at fair value through profit or loss	13	(163)
Net exchange losses / (gains)	373	(8)
Crediting		
Gain on sale of a subsidiary	-	(79)
Rental income from investment property	(26)	(25)
Dividends from equity investments	(14)	(15)
Net fair value (gains) / losses on non-debt related derivative financial instruments		
Cash flow hedge		
Reclassified from cash flow hedge reserve and cost of hedging reserve to		
Purchases and distributions of electricity and gas	(1,693)	(1,182)
Fuel and other operating expenses ^(g)	(1,691)	(39)
Ineffectiveness of cash flow hedge	(52)	(100)
Not qualified for hedge accounting	5,606	631

5. Operating Profit (continued)

Notes:

- (a) Retirement benefits costs for the year amounted to HK\$630 million (2021: HK\$652 million), of which HK\$157 million (2021: HK\$142 million) was capitalised.
- (b) KPMG India has been the statutory auditor of Apraava Energy group since April 2017. The Group does not regard KPMG India as a principal auditor of the Group given the relative small quantum of the audit fees, which reflect the scale of operations of Apraava Energy group. Our policy with regard to non-principal auditors for providing non-audit services is to ensure that, within country, the non-audit fees are not paid out of proportion to the audit fees so as to compromise in-country independence. The figure of audit related and non-audit services represented KPMG India's fees charged to Apraava Energy group during the period from 1 January 2022 to the date of disposal (the Period). Other KPMG offices have also provided services to our businesses in other regions which amounted to HK\$7 million for the Period (2021: HK\$14 million).
- (c) Permissible audit related and non-audit services provided by PricewaterhouseCoopers comprised Sustainability Report limited assurance, Continuing Connected Transactions limited assurance, review on accounting policies and profit projection for business development, limited assurance over EnergyAustralia's regulatory reviews and reporting, audits of CLP's provident funds, auditor's attestation and other advisory services.
- (d) In 2021, management viewed that it was unlikely that Jhajjar's power purchase agreements would be renewed after their expiry and an impairment provision of HK\$330 million was recognised.
- (e) In November 2022, the Group completed the sale of its entire 70% interest in CLP Guangxi Fangchenggang Power Company Limited (Fangchenggang), at a consideration of RMB1,507 million (HK\$1,648 million). As a result, a loss of HK\$185 million was recognised. Consideration receivable was included under trade and other receivables (Note 19(b)) at 31 December 2022.
In 2021, a gain of HK\$307 million was recognised from the sale of its entire interest in a joint venture, OneEnergy Asia Limited.
- (f) After exceptionally heavy rain in June 2021, cracks were discovered in the structures of the Morwell River Diversion which runs through the Yallourn mine site and an expenditure of HK\$452 million was recognised in 2021 for repairs and damage assessment.
- (g) Net fair value gains of HK\$1,500 million (2021: HK\$34 million) were reclassified from cash flow hedge reserve upon de-designation of certain energy contracts in Australia.

6. Finance Costs and Income

Accounting Policy

Borrowing costs are recognised as an expense in the year in which they are incurred, except to the extent that they are capitalised when they are directly attributable to the acquisition, construction or production of an asset which necessarily takes a substantial period of time to get ready for its intended use.

Interest and other finance income is recognised on a time proportion basis using the effective interest method.

	2022 HK\$M	2021 HK\$M
Finance costs		
Interest expenses on		
Bank loans and overdrafts	920	522
Other borrowings	1,143	1,118
Tariff Stabilisation Fund ^(a)	40	3
Customers' deposits and others	5	-
Lease liabilities	47	57
Net fair value changes on debt related derivative financial instruments		
Cash flow hedge		
Reclassified from cash flow hedge reserve	453	316
Reclassified from cost of hedging reserve	(21)	(8)
Ineffectiveness of cash flow hedges	3	1
Fair value hedge		
Net fair value losses	571	193
Reclassified from cost of hedging reserve	14	14
Ineffectiveness of fair value hedges	14	-
Not qualified for hedge accounting	(22)	10
Net fair value gains on hedged items in fair value hedges	(571)	(193)
Net exchange gains on financing activities	(296)	(175)
Finance charges	251	203
	2,551	2,061
Less: amount capitalised ^(b)	(466)	(317)
	2,085	1,744
Finance income		
Interest income on		
Bank deposits	95	59
Loans to joint ventures and others	148	49
	243	108

Notes:

- (a) In accordance with the provisions of the SoC Agreement, CLP Power is required to credit, to a Rate Reduction Reserve in its financial statements, a charge of the average of one-month Hong Kong Interbank Offered Rate on the average balance of the Tariff Stabilisation Fund (Note 25(B)).
- (b) Finance costs of the Group's general borrowings have been capitalised at average interest rates of 2.86% – 4.47% (2021: 2.64% – 4.32%) per annum.

7. Income Tax Expense

Income tax in the consolidated statement of profit or loss represents the income tax of the Company and subsidiaries and is analysed below:

	2022 HK\$M	2021 HK\$M
Current income tax expense	1,649	1,720
Deferred tax (credit)/expense	(1,546)	245
	103	1,965

Hong Kong profits tax has been provided at the rate of 16.5% (2021: 16.5%) on the estimated assessable profits for the year. Income tax on profits assessable outside Hong Kong has been provided at the rates prevailing in the respective jurisdictions.

The income tax on the Group's profit before income tax differs from the theoretical amount that would arise using the Hong Kong profits tax rate as follows:

	2022 HK\$M	2021 HK\$M
Profit before income tax	1,590	11,439
Less: Share of results of joint ventures and associates, net of income tax	(2,460)	(1,974)
	(870)	9,465
Calculated at an income tax rate of 16.5% (2021: 16.5%)	(144)	1,562
Effect of different income tax rates in other countries	(805)	14
Income not subject to tax	(103)	(115)
Expenses not deductible for tax purposes	1,097	616*
Revenue adjustment for SoC not subject to tax	100	195
Tariff rebates deductible for tax purposes	(118)	-
Under/(over)-provision in prior years	59	(312)*
Tax losses not recognised	17	5
Income tax expense	103	1,965

* The tax implication of HK\$333 million of the Settlement (Note 4(b)) was treated as a non-deductible expense in 2021 with a corresponding adjustment to the prior year's tax return when the initial sales proceeds were recognised in 2015.

8. Dividends

	2022		2021	
	HK\$ per Share	HK\$M	HK\$ per Share	HK\$M
First to third interim dividends paid	1.89	4,775	1.89	4,775
Fourth interim dividend declared	1.21	3,057	1.21	3,057
	3.10	7,832	3.10	7,832

At the Board meeting held on 27 February 2023, the Directors declared the fourth interim dividend of HK\$1.21 per share (2021: HK\$1.21 per share). The fourth interim dividend is not reflected as a dividend payable in the financial statements.

9. Earnings per Share

The earnings per share are computed as follows:

	2022	2021
Earnings attributable to shareholders (HK\$M)	924	8,491
Weighted average number of shares in issue (thousand shares)	2,526,451	2,526,451
Earnings per share (HK\$)	0.37	3.36

Basic and fully diluted earnings per share are the same as the Company did not have any dilutive equity instruments throughout the years ended 31 December 2022 and 2021.

10. Fixed Assets

Accounting Policy

Fixed assets are stated at cost less accumulated depreciation and accumulated impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the fixed asset. Cost may also include transfer from equity of any gains / losses on qualifying cash flow hedges of foreign currency purchases of fixed assets. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. For any asset replacement, the carrying amount of the replaced part is derecognised. All other repairs and maintenance are recognised as expenses in the period in which they are incurred.

Depreciation of fixed assets is calculated, using the straight-line method, to allocate their costs to their estimated residual values over their estimated useful lives. The estimated useful lives of the fixed assets are set out below:

	SoC fixed assets	Non-SoC fixed assets
Freehold land	not applicable	not depreciable
Cable tunnels	100 years	30 years
Buildings and civil structures at power stations	35 years	20 – 50 years
Ash lagoon	35 years	20 – 40 years
Other buildings and civil structures	60 years	10 – 60 years
Generating plants	25 – 45 years*	10 – 41 years
Overhead lines (33kV and above)	60 years	20 – 40 years
Overhead lines (below 33kV)	45 years	18 – 20 years
Cables	60 years	10 – 30 years
Switchgear and transformers	50 years	15 – 35 years
Substation miscellaneous	25 years	15 – 20 years
Meters	15 years	10 – 15 years
Other equipment, furniture and fittings, motor vehicles and marine crafts	5 – 10 years	2 – 30 years

* Useful lives of certain generating plants have been extended by 10 – 20 years after mid-life refurbishments

The assets' residual values and useful lives are reviewed and adjusted, if appropriate, at the end of each reporting period. For plant under construction, no depreciation is provided until the construction is completed and the assets are ready for their intended use. An asset's carrying amount is written down immediately to its estimated recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. The gain or loss on disposal of a fixed asset is the difference between the net sales proceeds and the carrying amount of the relevant asset, and is recognised in profit or loss.

10. Fixed Assets (continued)

Critical Accounting Estimates and Judgements

(A) Assessment of the Carrying Value of Generation Assets in Australia

Given continued changes in the NEM in Australia and changes in the supply and demand equilibrium, risk is introduced in market modelling which heightens the criticality of this judgement area. As part of making these critical judgements, risks do exist in the assumptions made around supply and demand with regard to the generation assets in Australia. In certain circumstances, where demand expectations and supply side responses vary substantially from the assumptions made, significant changes in the value of the assets could eventuate.

EnergyAustralia aims to address the enormous challenges associated with climate change and is committed to Australia's transition to net zero emissions with cleaner, reliable and affordable energy for customers. EnergyAustralia is transforming its generation portfolio, investing in cleaner forms of energy, while helping customers to reduce their own emissions. When determining whether the carrying value of the generation assets is supportable, scenarios are produced which reflect a range of economic conditions that may exist over the life of the assets. The scenarios consider a broad range of outcomes including increased renewable generation, emissions reduction and carbon pricing schemes, potential regulatory changes and the impact to the useful lives of the generation assets in Australia. The scenarios are then considered in terms of likelihood to arrive at management's best estimate.

Key estimates and assumptions for assessing the carrying value of the generation assets are as follows:

- Critical judgement exists in estimating forward electricity pool prices (the forward curve), generation volumes, retail volumes, gas prices and long-term assumptions around market movements and growth rates.
- Operating costs are escalated by relevant cost drivers using activity-based costing principles. Significant uncertainties exist around fuel supply and non-contracted fuel costs are based on management's estimate of future fuel prices.

The assessment concluded that the carrying value of generation assets (HK\$12.9 billion) was supported and no impairment was required. Management particularly considers the generation CGU to be highly sensitive to a change in expected long-term wholesale prices. The Group will continually assess the carrying value of the generation assets as the market and the Group transition towards a cleaner energy future.

(B) Assessment of the Carrying Values of Fixed Assets and Right-of-use Assets in Other Regions

The Group has also made substantial investments in fixed assets and right-of-use assets (mainly leasehold land and land use rights) in other regions. The Group conducts impairment reviews of these assets whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable.

Determining whether an asset or a CGU should be impaired requires an estimation of the recoverable amount, which requires the Group to estimate the future cash flows, a growth rate (that reflects the economic environments in which the Group operates) and a pre-tax discount rate (that reflects the current market assessments of the time value of money and the risks specific to the asset, inclusive of climate change impact) in order to calculate the present value. Where the present value of the expected cash flows is less than the asset's carrying amount, an impairment loss may arise. During 2022, after reviewing the business environment as well as the Group's strategies and past performance of the investments, management concluded that there was no indication of impairment for fixed assets and right-of-use assets.

10. Fixed Assets (continued)

Fixed assets included assets under construction with book value of HK\$19,580 million (2021: HK\$14,744 million). The movements during the year are set out below:

	Freehold Land HK\$M	Buildings HK\$M	Plant, Machinery and Equipment HK\$M	Total HK\$M
Net book value at 1 January 2021	1,134	21,988	125,332	148,454
Acquisition of a subsidiary	-	1	1,910	1,911
Sale of a subsidiary	-	-	(10)	(10)
Additions	-	1,304	11,846	13,150
Transfers and disposals	(1)	(78)	(430)	(509)
Depreciation	-	(816)	(7,327)	(8,143)
Impairment charge	-	(44)	(286)	(330)
Exchange differences	(25)	53	(493)	(465)
Net book value at 31 December 2021	1,108	22,408	130,542	154,058
Cost	1,215	37,795	240,885	279,895
Accumulated depreciation and impairment	(107)	(15,387)	(110,343)	(125,837)
Net book value at 31 December 2021	1,108	22,408	130,542	154,058
Net book value at 1 January 2022	1,108	22,408	130,542	154,058
Additions	3	1,708	12,853	14,564
Transfers and disposals	-	(32)	(288)	(320)
Depreciation	-	(828)	(7,019)	(7,847)
Loss on measurement of disposal group upon reclassification (Note 4(a))	-	(170)	(1,452)	(1,622)
Reclassification to assets of disposal group (Note 4(a))	(753)	(378)	(8,154)	(9,285)
Exchange differences	(62)	(275)	(1,944)	(2,281)
Net book value at 31 December 2022	296	22,433	124,538	147,267
Cost	374	38,086	232,606	271,066
Accumulated depreciation and impairment	(78)	(15,653)	(108,068)	(123,799)
Net book value at 31 December 2022	296	22,433	124,538	147,267



Apraava Energy group was reclassified as a disposal group held for sale since June 2022 and any subsequent changes in assets/liabilities (e.g. fixed assets additions) were recognised under assets/liabilities of disposal group held for sale (but not presented under individual balance sheet items). In addition, fixed assets ceased to depreciate since the reclassification. Depreciation that would have been recognised had the disposal group not been classified as held for sale would be amounted to HK\$278 million (CLP's after tax share of HK\$126 million).

11. Right-of-Use Assets

Accounting Policy

The Group as a lessee recognises right-of-use assets at the commencement date of the lease (i.e. the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term or the estimated useful lives of the assets.

The Group has lease contracts for land and buildings and various items of plant, machinery and equipment used in its operations. The movements during the year are set out below:

	Prepaid Leasehold Land ^(a) HK\$M	Land and Buildings ^(b) HK\$M	Plant, Machinery and Equipment ^(b) HK\$M	Total HK\$M
Net book value at 1 January 2021	5,603	728	730	7,061
Acquisition of a subsidiary	3	–	–	3
Additions	456	19	19	494
Transfers and disposals	–	–	(23)	(23)
Depreciation	(202)	(96)	(44)	(342)
Exchange differences	4	(33)	(34)	(63)
Net book value at 31 December 2021	<u>5,864</u>	<u>618</u>	<u>648</u>	<u>7,130</u>
Net book value at 1 January 2022	5,864	618	648	7,130
Additions	878	84	(1)	961
Transfers and disposals	–	(12)	–	(12)
Depreciation	(202)	(98)	(52)	(352)
Reclassification to assets of disposal group (Note 4(a))	(47)	–	–	(47)
Exchange differences	(18)	(38)	(42)	(98)
Net book value at 31 December 2022	<u>6,475</u>	<u>554</u>	<u>553</u>	<u>7,582</u>

Notes:

- (a) Prepaid leasehold land represents upfront lease payments, including land premium, on lease of land with the tenure of 20 to 150 years.
- (b) The Group has leased several assets including a water treatment plant, offices and battery storage facilities. Lease terms are negotiated on an individual basis and contain a wide range of terms and conditions. Tenures of the leases range from 1 to 30 years.

12. Investment Property

Accounting Policy

Investment properties include properties that are being constructed or developed for future use as investment properties. Land held under an operating lease is accounted for as an investment property when the rest of the definition of an investment property under the accounting standard is met. Investment properties are measured initially at cost, including related transaction costs. Subsequent to initial recognition, investment properties are measured at fair value, unless they are still in the course of construction or development at the end of the reporting period and their fair value cannot be reliably measured at that time. Fair value is based on active market prices, adjusted, if necessary, for any difference in the nature, location or condition of the specific asset. If the information is not available, the Group uses alternative valuation methods such as recent prices on less active markets or discounted cash flow projections. Any gains and losses arising from changes in the fair value or from the retirement or disposal of an investment property are recognised in profit or loss in the period in which they arise.

12. Investment Property (continued)

	2022 HK\$M	2021 HK\$M
At 1 January	966	1,000
Revaluation loss	(57)	(34)
At 31 December	909	966

Investment property represents the commercial interest of the retail portion of the Laguna Mall in Hong Kong, which is leased out by the Group under operating leases.

Investment property was valued by Cushman & Wakefield Limited (Cushman), an independent qualified valuer, who holds recognised relevant professional qualifications and has recent experience in the locations and segments of the investment property valued.

Cushman has valued the property at 31 December 2022 by using the income capitalisation approach, cross-referenced with comparable market transactions. The income capitalisation approach is based on the capitalisation of the existing rental/licence income and potential reversionary income over the remaining tenure of the property from the date of valuation at appropriate capitalisation rates that by reference to the yields achieved in analysed market sales transactions and as expected by investors. The significant unobservable input is the capitalisation rates adopted for the valuation which are ranging from 3.90% to 4.15% (2021: 3.90% to 4.15%). The fair value is negatively correlated to the capitalisation rate.

The fair value measurement of the Group's investment property is categorised within Level 3 of the fair value hierarchy at 31 December 2022 and 2021.

13. Goodwill and Other Intangible Assets

Accounting Policy

(A) Goodwill

Goodwill arises from the acquisition of subsidiaries and represents the excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired.

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the CGUs, or groups of CGUs, that is expected to benefit from the synergies of the combination. Each CGU or group of CGUs to which the goodwill is allocated represents the lowest level within the entity at which the goodwill is monitored for internal management purposes. Goodwill is monitored at the operating segment level.

Goodwill impairment reviews are undertaken at least annually or if events or changes in circumstances indicate a potential impairment. The carrying value of the CGU containing the goodwill is compared to the recoverable amount, which is the higher of value in use and the fair value less costs of disposal. Any impairment is recognised immediately as an expense and cannot be subsequently reversed.

(B) Other intangible assets

Intangible assets other than goodwill are measured initially at cost or, if acquired in a business combination, fair value at the acquisition date. An intangible asset with a finite useful life is amortised on a straight-line basis over its useful life and carried at cost less accumulated amortisation and accumulated impairment losses.

13. Goodwill and Other Intangible Assets (continued)

Critical Accounting Estimates and Judgements: Goodwill Impairment

The recoverable amounts of CGUs with allocated goodwill are determined based on value in use calculations, which use cash flow projections as at 31 December 2022. These cash flow projections are derived from the approved business plan and a forecast covering a period of ten years which have incorporated necessary updates. Projections for a period of greater than five years have been used on the basis that a longer projection period represents the long-dated nature of our generation and electricity supply assets and a more appropriate reflection of future cash flows from potential legislative, regulatory and structural changes in the industry.

Energy retail business in Australia

Key assumptions for value in use calculations

The key assumptions used in the value in use calculations reflect a combination of internal and external factors impacting gross margin, number of customer accounts and discount rates.

The assumptions impacting gross margin include:

- Retail tariffs are sensitive to regulatory changes including regulation and deregulation, and based on management estimates and expectations of current and expected market conditions arising from known and potential regulatory outcomes.
- Electricity and gas volumes for purchases and sales in the short term represent the forecast projections in EnergyAustralia's Business Plan. External information is used to verify and align internal estimates.
- Electricity and gas network (transmission and distribution) cost assumptions are based on published regulated prices. When no estimates are available, network costs are assumed to escalate by the relevant consumer price index.
- Electricity pool prices, generation volumes, dispatch levels and gas prices were derived using modelling of the electricity and gas wholesale markets. NEM modelling is prepared internally using, where possible, observable inputs. The modelling used for the electricity and gas wholesale markets is based on experience and observable market activity.

Other assumptions include:

- The number of customer accounts in the short term for electricity and gas aligns with EnergyAustralia's Business Plan.
- The cash flow projections are discounted using a pre-tax discount rate of 11.0% (2021: 9.9%). The discount rates reflect the current market assessments of the time value of money and are based on the estimated cost of capital.
- A long term growth rate of 2.5% (2021: 2.8%) is applied in the terminal value calculation after the first ten years of cash flows.

13. Goodwill and Other Intangible Assets (continued)

Critical Accounting Estimates and Judgements: Goodwill Impairment (continued)

Energy retail business in Australia (continued)

Sensitivity analysis for the energy retail CGU valuation

When undertaking the value in use calculation of our retail CGU at year end, the results indicate that minimal headroom remains. The energy retail CGU valuation is sensitive to certain key assumptions, in particular, gross margin and customer accounts growth. Both retail tariffs and customer account growth assumptions are judgemental and have a direct impact on our CGU valuation. Movements in discount rates, whilst driven by different assumptions, would also have an impact.

- A 5% decrease in long term gross margin would decrease the recoverable amount by HK\$1,533 million (A\$290 million).
- A 1% decrease in long term annual customer growth rate would decrease the recoverable amount by HK\$1,512 million (A\$286 million).
- An increase in the discount rate of 0.5% would decrease the recoverable amount by HK\$1,258 million (A\$238 million).

These sensitivities are based on a change in the relevant assumption while holding other assumptions constant. In practice, this is unlikely to occur and changes in some of the assumptions may be correlated. As a result of the minimal headroom, any material adverse shift in a key assumption without any favourable valuation movement is likely to result in a potential impairment. Up to the date of this report, there were no confirmed material changes in any of the key assumptions mentioned above that would have caused the recoverable amount to be less than its carrying value.

Hong Kong electricity business

The key assumptions used in the value in use calculations are as follows:

- Goodwill arising from the acquisition of CAPCO has been allocated to CLP Power and CAPCO as a combined CGU as the acquisition is considered beneficial to the whole SoC business.
- The electricity tariff for the supply of electricity in meeting the demand of customers in Hong Kong over the forecast periods is determined with reference to the rate-setting mechanism under the SoC.
- The forecast for electricity demand is based on the load forecast to support local infrastructure development and meeting customer load requirements, maintaining safety and supply reliability, and meeting environmental requirements.
- Expenditures for the supply of electricity in meeting the forecast demand are based on committed purchase contracts where applicable, and inputs on cost trends specific to the electricity business in Hong Kong. Such forecast aligns with the projection in the Business Plan for our Hong Kong electricity business, with capital expenditures up to 2023 aligned with those forecasted in the approved Development Plan.
- Terminal value of the CGU is adopted to estimate the cash flows to be generated for the periods beyond ten years. This is expressed as a multiple of net asset values which corresponds to our return model based on fixed assets investment. The terminal value is a multiple of 1.2 times of the net asset values forecasted as at the end of 2032.
- The cash flow projections are discounted using a pre-tax discount rate of 9.69% (2021: 9.82%), or a post-tax return of 8.00% (2021: 8.00%) which reflects the SoC return rate applicable to the electricity business in Hong Kong.

Up to the date of this report, there were no reasonably possible changes in any of the key assumptions mentioned above that would have caused the recoverable amount of this CGU to be less than its carrying value.

13. Goodwill and Other Intangible Assets (continued)

	Goodwill ^(a) HK\$M	Capacity Right ^(b) HK\$M	Others HK\$M	Total HK\$M
Net carrying value at 1 January 2021	14,946	3,901	1,712	20,559
Additions	-	16	496	512
Disposals	-	-	(2)	(2)
Amortisation	-	(279)	(544)	(823)
Exchange differences	(455)	-	(81)	(536)
Net carrying value at 31 December 2021	14,491	3,638	1,581	19,710
Cost	21,232	5,743	6,286	33,261
Accumulated amortisation and impairment	(6,741)	(2,105)	(4,705)	(13,551)
Net carrying value at 31 December 2021	14,491	3,638	1,581	19,710
Net carrying value at 1 January 2022	14,491	3,638	1,581	19,710
Additions	-	4	326	330
Write-offs	-	-	(185)	(185)
Amortisation	-	(280)	(425)	(705)
Loss on measurement of disposal group upon reclassification (Note 4(a))	(13)	-	-	(13)
Exchange differences	(590)	-	(96)	(686)
Net carrying value at 31 December 2022	13,888	3,362	1,201	18,451
Cost	20,174	5,747	5,683	31,604
Accumulated amortisation and impairment	(6,286)	(2,385)	(4,482)	(13,153)
Net carrying value at 31 December 2022	13,888	3,362	1,201	18,451

Notes:

- (a) Goodwill mainly arose from the acquisitions of energy retail business in Australia of HK\$8,271 million (2021: HK\$8,854 million) and the acquisition of CAPCO under Hong Kong electricity business of HK\$5,545 million (2021: HK\$5,545 million).
- (b) Capacity right represents the right to use 50% of the pumped storage capacity of Phase I of the Guangzhou Pumped Storage Power Station in Conghua, Guangzhou and the corresponding right to use the associated transmission facilities until 2034.

14. Interests in and Loans to Joint Ventures Accounting Policy No. 3(B)

The table below lists the material joint ventures of the Group at 31 December 2022:

Name	% of Ownership Interest at		Place of Incorporation / Business	Principal Activity
	31 December 2022	2021		
Apraava Energy Private Limited (Note 4(a))	50	60 *	India	Generation of electricity and power projects investment holding
CSEC Guohua International Power Company Limited (CSEC Guohua) ^(a)	30	30	Mainland China	Generation of electricity
Hong Kong LNG Terminal Limited (HKLTL) ^(b)	49	49	Hong Kong	Development, construction, operation, maintenance and owning of LNG terminal and provision of related services
OneEnergy Taiwan Ltd (OneEnergy Taiwan) ^(c)	50	50	British Virgin Islands / Taiwan	Investment holding
ShenGang Natural Gas Pipeline Company Limited (SNGPC) ^(d)	40	40	Mainland China	Natural gas transportation

* Apraava Energy was a 60% indirectly owned subsidiary of the Company at 31 December 2021

Notes:

- (a) Registered as Sino-Foreign Joint Stock Company under People's Republic of China (PRC) law
- (b) HKLTL is 70% owned by CAPCO which is 70% owned by CLP Power
- (c) OneEnergy Taiwan indirectly owns 40% interest in Ho-Ping Power Company
- (d) Registered as Sino-Foreign Equity Joint Venture Enterprise under PRC law



More detailed information of our joint ventures can be found on "Our Portfolio" on pages 316 to 319 of the Annual Report.

14. Interests in and Loans to Joint Ventures (continued)

Summarised financial information of joint ventures and the Group's share of results and net assets are as follows:

	Apraava Energy (Note 4(a)) HK\$M	CSEC Guohua HK\$M	HKLTL HK\$M	OneEnergy Taiwan HK\$M	SNGPC HK\$M	Fang- chenggang (Note 5(e)) HK\$M	Others HK\$M	Total HK\$M
For the year ended 31 December 2022								
Revenue	-	16,499	8	-	1,102	3,934	4,545	26,088
Depreciation and amortisation	-	(1,447)	-	-	(194)	(229)	(1,642)	(3,512)
Interest income	-	8	-	-	6	7	5	26
Interest expense	-	(181)	-	-	(9)	(175)	(138)	(503)
Other expenses	-	(14,064)	(8)	(3)	(251)	(3,648)	(2,474)	(20,448)
Share of results of joint ventures	-	-	-	6	-	-	(1)	5
Profit/(loss) before income tax	-	815	-	3	654	(111)	295	1,656
Income tax (expense)/credit	-	(171)	-	-	(169)	33	(82)	(389)
Profit/(loss) for the year	-	644	-	3	485	(78)	213	1,267
Non-controlling interests	-	(306)	-	-	-	-	-	(306)
Profit/(loss) for the year attributable to shareholders	-	338	-	3	485	(78)	213	961
Profit/(loss) for the year	-	644	-	3	485	(78)	213	1,267
Other comprehensive income	-	-	-	-	-	-	(3)	(3)
Total comprehensive income	-	644	-	3	485	(78)	210	1,264
Group's share								
Profit/(loss) for the year attributable to shareholders	-	102	-	2	194	(54)	81	325
Other comprehensive income	-	-	-	-	-	-	(1)	(1)
Total comprehensive income	-	102	-	2	194	(54)	80	324
Dividend income from joint ventures	-	21	-	100	160	3	111	395
For the year ended 31 December 2021								
Revenue	-	14,433	1	-	1,115	4,395	7,248	27,192
Depreciation and amortisation	-	(1,411)	-	-	(194)	(250)	(1,653)	(3,508)
Interest income	-	11	-	-	2	12	3	28
Interest expense	-	(199)	-	-	(17)	(232)	(133)	(581)
Other expenses	-	(14,151)	(1)	(3)	(177)	(4,106)	(6,293)	(24,731)
Share of results of joint ventures	-	-	-	252	-	-	(29)	223
(Loss)/profit before income tax	-	(1,317)	-	249	729	(181)	(857)	(1,377)
Income tax credit/(expense)	-	393	-	-	(184)	46	54	309
(Loss)/profit for the year	-	(924)	-	249	545	(135)	(803)	(1,068)
Non-controlling interests	-	431	-	-	-	-	-	431
(Loss)/profit for the year attributable to shareholders	-	(493)	-	249	545	(135)	(803)	(637)
(Loss)/profit for the year	-	(924)	-	249	545	(135)	(803)	(1,068)
Other comprehensive income	-	-	-	-	-	-	(20)	(20)
Total comprehensive income	-	(924)	-	249	545	(135)	(823)	(1,088)
Group's share								
(Loss)/profit for the year attributable to shareholders	-	(148)	-	124	218	(95)	(196)	(97)
Other comprehensive income	-	-	-	-	-	-	(4)	(4)
Total comprehensive income	-	(148)	-	124	218	(95)	(200)	(101)
Dividend income from joint ventures	-	13	-	501	91	46	230	881

14. Interests in and Loans to Joint Ventures (continued)

	Apraava Energy (Note 4(a)) HK\$M	CSEC Guohua HK\$M	HKLTL HK\$M	OneEnergy Taiwan HK\$M	SNGPC HK\$M	Fang- chenggang (Note 5(e)) HK\$M	Others HK\$M	Total HK\$M
At 31 December 2022								
Non-current assets	10,154	18,040	2,777	2,793	3,348	-	8,341	45,453
Current assets								
Cash and cash equivalents	1,872	1,484	25	14	331	-	585	4,311
Other current assets	4,774	2,271	11	2	46	-	1,349	8,453
	6,646	3,755	36	16	377	-	1,934	12,764
Current liabilities								
Financial liabilities ^(a)	(2,353)	(2,421)	(38)	-	(40)	-	(2,948)	(7,800)
Other current liabilities ^(a)	(2,789)	(1,690)	(171)	(1)	(243)	-	(2,024)	(6,918)
	(5,142)	(4,111)	(209)	(1)	(283)	-	(4,972)	(14,718)
Non-current liabilities								
Financial liabilities ^(a)	(4,713)	(2,174)	-	-	(74)	-	(738)	(7,699)
Shareholders' loans	-	-	(2,604)	-	-	-	(36)	(2,640)
Other non-current liabilities ^(a)	(732)	(2,111)	-	-	(649)	-	(18)	(3,510)
	(5,445)	(4,285)	(2,604)	-	(723)	-	(792)	(13,849)
Non-controlling interests	-	(5,881)	-	-	-	-	-	(5,881)
Net assets	6,213	7,518	-	2,808	2,719	-	4,511	23,769
Group's share of net assets	3,106	2,255	-	1,404	1,087	-	1,994	9,846
Goodwill	-	-	-	-	-	-	35	35
Interests in joint ventures	3,106	2,255	-	1,404	1,087	-	2,029	9,881
Loans to joint ventures	-	-	1,850 ^(b)	-	-	-	17	1,867
	3,106	2,255	1,850	1,404	1,087	-	2,046	11,748
At 31 December 2021								
Non-current assets	-	20,691	2,105	3,302	3,848	7,811	8,851	46,608
Current assets								
Cash and cash equivalents	-	1,647	1	7	251	473	297	2,676
Other current assets	-	1,811	1	2	75	1,085	2,494	5,468
	-	3,458	2	9	326	1,558	2,791	8,144
Current liabilities								
Financial liabilities ^(a)	-	(3,528)	-	-	(169)	(642)	(2,824)	(7,163)
Other current liabilities ^(a)	-	(1,942)	(517)	-	(276)	(758)	(3,123)	(6,616)
	-	(5,470)	(517)	-	(445)	(1,400)	(5,947)	(13,779)
Non-current liabilities								
Financial liabilities ^(a)	-	(2,645)	-	-	(146)	(4,917)	(736)	(8,444)
Shareholders' loans	-	-	(1,590)	-	-	-	(30)	(1,620)
Other non-current liabilities ^(a)	-	(1,934)	-	-	(702)	(58)	(30)	(2,724)
	-	(4,579)	(1,590)	-	(848)	(4,975)	(796)	(12,788)
Non-controlling interests	-	(6,150)	-	-	-	-	-	(6,150)
Net assets	-	7,950	-	3,311	2,881	2,994	4,899	22,035
Group's share of net assets	-	2,385	-	1,655	1,152	2,095	2,152	9,439
Goodwill	-	-	-	-	-	-	35	35
Interests in joint ventures	-	2,385	-	1,655	1,152	2,095	2,187	9,474
Loans to joint ventures	-	-	1,113 ^(b)	-	-	-	15	1,128
	-	2,385	1,113	1,655	1,152	2,095	2,202	10,602

14. Interests in and Loans to Joint Ventures (continued)


Notes:

- (a) Financial liabilities exclude trade and other payables and provisions which are included in other current and non-current liabilities.
- (b) Pursuant to agreement between shareholders of HKLTL, shareholders' loan facilities are provided to HKLTL by the shareholders pro-rata to their shareholdings to finance the construction of the LNG terminal. The loans to HKLTL are unsecured, carry interest at rates which are benchmarked to market interest rates. Instalment repayment of the loans will commence after the commissioning of the LNG terminal with final maturity at the end of the related asset lives of the LNG terminal. At 31 December 2022, outstanding committed shareholder's loan facilities by the Group as 70% shareholder of HKLTL amounted to HK\$296 million (2021: HK\$518 million).

The expected credit loss of loans to joint ventures is close to zero.

	2022 HK\$M	2021 HK\$M
Share of capital commitments	394	419
Share of lease and other commitments *	3,796	3,800
Share of contingent liabilities	-	59

* Representing the share of lease and other commitments in relation to the use and operation of a floating storage and regasification unit and related support vessels


 Following the deconsolidation of Apraava Energy in December 2022, CLP's share of Apraava Energy's commitments and contingent liabilities, if any, is presented in this note.

The Group's capital commitments in relation to its interests in joint ventures are disclosed in Note 31(C).

15. Interests in Associates Accounting Policy No. 3(B)

The table below lists the associates of the Group at 31 December 2022:

Name	% of Ownership Interest at 31 December 2021 and 2022	Place of Incorporation/ Business	Principal Activity
Guangdong Nuclear Power Joint Venture Company, Limited (GNPJVC) ^(a)	25	Mainland China	Generation of electricity
Yangjiang Nuclear Power Co., Ltd. (Yangjiang Nuclear) ^(a)	17	Mainland China	Generation of electricity

 More detailed information of our associates can be found on "Our Portfolio" on page 316 of the Annual Report.

15. Interests in Associates (continued)

Summarised financial information of the associates and the Group's share of results and net assets are as follows:

	GNPJVC HK\$M	Yangjiang Nuclear ^(b) HK\$M	Total HK\$M
For the year ended 31 December 2022			
Revenue	8,524	21,809	30,333
Profit and total comprehensive income	4,084	6,550	10,634
Group's share of profit and total comprehensive income	1,021	1,114	2,135
Dividend income from associates	41	1,117	1,158
For the year ended 31 December 2021			
Revenue	8,183	21,668	29,851
Profit and total comprehensive income	4,050	6,228	10,278
Group's share of profit and total comprehensive income	1,012	1,059	2,071
Dividend income from associates	1,959	728	2,687
At 31 December 2022			
Non-current assets	4,073	91,007	95,080
Current assets	10,498	12,297	22,795
Current liabilities	(2,134)	(18,372)	(20,506)
Non-current liabilities	(5,252)	(42,027)	(47,279)
Net assets	7,185	42,905	50,090
Group's share of net assets	1,796	7,294	9,090
At 31 December 2021			
Non-current assets	6,973	103,589	110,562
Current assets	7,410	14,033	21,443
Current liabilities	(5,946)	(21,643)	(27,589)
Non-current liabilities	(5,154)	(49,229)	(54,383)
Net assets	3,283	46,750	50,033
Group's share of net assets	821	7,948	8,769

At 31 December 2022, the Group's share of capital commitments of its associates was HK\$638 million (2021: HK\$782 million).

Notes:

(a) Registered as Sino-Foreign Equity Joint Venture Enterprise under PRC law

(b) The share of results of Yangjiang Nuclear included amortisation of the fair value adjustment on fixed assets

16. Derivative Financial Instruments

Accounting Policy

A derivative is initially recognised at fair value on the date a derivative contract is entered into and is subsequently remeasured at fair value. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. Fair value gain or loss arising from derivatives not designated or not qualified for hedge accounting are recognised immediately in profit or loss.

The Group designates certain derivatives as either fair value hedges, which are hedges of the fair value of recognised financial assets or financial liabilities or firm commitments (e.g. fixed interest rate loans and foreign currency trade receivables) or cash flow hedges, which are hedges of the cash flows of recognised financial assets or financial liabilities or highly probable forecast transactions (e.g. floating interest rate loans and future purchases of fuels denominated in US dollar).

The Group documents at the inception of the transaction the intended relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking hedge transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the hedging relationship meets the hedge effectiveness requirements.

(A) Fair value hedges

Changes in the fair values of derivatives that are designated and qualify as fair value hedges are recognised in profit or loss, which offset any changes in the fair values recognised in profit or loss of the corresponding hedged asset or liability that are attributable to the hedged risk and achieve the overall hedging result.

(B) Cash flow hedges

The effective portion of changes in the fair values of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income. The ineffective portion is recognised immediately in profit or loss.

Amounts accumulated in equity are reclassified to profit or loss in the periods when the hedged items affect profit or loss. Such reclassification from equity will offset the effect on profit or loss of the corresponding hedged item to achieve the overall hedging result. However, when the highly probable forecast transaction that is hedged results in the recognition of a non-financial asset (for example, inventory or fixed assets), the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the asset at the time of acquisition. The deferred amounts are ultimately recognised in fuel costs in the case of inventory or in depreciation in the case of fixed assets.

For cash flow hedges affected by the Interest Rate Benchmark Reform (the Reform), the Group retains the cumulative gain or loss in the cash flow hedge reserve, even though there is uncertainty arising from the Reform with respect to the timing and amount of the cash flows of the hedged items. Should the Group consider that the hedged future cash flows are no longer expected to occur due to reasons other than the Reform, the cumulative gain or loss will be immediately reclassified to profit or loss.

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, hedge accounting is discontinued prospectively. Any cumulative gain or loss remains in equity at that time is accounted for according to the nature of the underlying transactions (as discussed above) once the hedged cash flow occurs. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that has been recorded in equity is reclassified to profit or loss immediately.

16. Derivative Financial Instruments (continued)

Accounting Policy (continued)

(C) Costs of hedging

Time value of options, forward element of forward contracts and foreign currency basis spread of financial instruments may be separated and excluded from the designated hedging instruments. In such case, the Group treats the excluded elements as costs of hedging. The fair value changes of these elements are recognised in a separate component of equity. For time-period related hedged items, these elements at the date of designation (to the extent that it relates to the hedged item) are amortised on a systematic and rational basis to profit or loss over the hedging period. For transaction related hedged items, the cumulative change of these elements is included in the initial carrying amount of any non-financial asset recognised when the hedged transaction occurs or is recognised in profit or loss if the hedged transaction affects profit or loss.

(D) Rebalancing of hedge relationships

If the hedge ratio for risk management purposes is no longer optimal but the risk management objective remains unchanged and the hedge continues to qualify for hedge accounting, the hedge relationship will be rebalanced by adjusting either the volume of the hedging instrument or the volume of the hedged item so that the hedge ratio aligns with the ratio used for risk management purposes. Any hedge ineffectiveness is calculated and accounted for in profit or loss at the time of the hedge relationship rebalancing.

	2022		2021	
	Assets HK\$M	Liabilities HK\$M	Assets HK\$M	Liabilities HK\$M
Cash flow hedges				
Forward foreign exchange contracts and options	3	207	75	126
Cross currency interest rate swaps	33	1,011	51	987
Interest rate swaps	59	-	-	80
Energy contracts	3,152	599	2,256	314
Fair value hedges				
Cross currency interest rate swaps	6	377	129	59
Interest rate swaps	-	80	14	7
Not qualified for hedge accounting				
Forward foreign exchange contracts	20	83	82	61
Interest rate swaps	-	-	5	-
Energy contracts	777	4,358	870	1,032
	4,050	6,715	3,482	2,666
Current	2,107	5,310	1,475	1,302
Non-current	1,943	1,405	2,007	1,364
	4,050	6,715	3,482	2,666

At 31 December 2022, the contractual maturity profile of the hedging instruments from the end of the reporting period is summarised below:

Forward foreign exchange contracts	Up to 4 years
Cross currency interest rate swaps	Up to 14 years
Interest rate swaps	Up to 10 years
Energy contracts	Up to 8 years

17. Other Non-current Assets

Accounting Policy**(A) Investments**

Investments classified at fair value through other comprehensive income are initially recognised at fair value and are elected to present subsequent changes in fair value in other comprehensive income. The gains or losses on such investments are never reclassified to profit or loss and no impairment is recognised in profit or loss. Cumulative gains and losses recognised in other comprehensive income are transferred to retained profits on disposal of the investment. Dividends on the investments are recognised in profit or loss unless they clearly represent a recovery of part of the cost of the investment, in which case they are deducted from the carrying amounts of the investments directly.

Investments classified at fair value through profit or loss (mainly investments in funds) are initially recognised at fair value and subsequent changes in fair value are recognised in profit or loss.

(B) Contract acquisition costs

Incremental costs to obtain a contract with a customer are capitalised if they are expected to be recoverable. Costs capitalised are amortised on a straight-line basis over the expected benefit periods of the contracts. Non-incremental costs, i.e. costs that would have been incurred regardless of whether the contract is obtained, are expensed when incurred.

	2022	2021
	HK\$M	HK\$M
Investments at fair value through other comprehensive income	300	373
Investments at fair value through profit or loss	678	542
Prepayment for purchase of a property ^(a)	676	338
Contract acquisition costs	220	180
Defined benefit asset ^(b)	217	221
Service concession receivables	-	234
Others	352	415
	2,443	2,303

Notes:

- (a) On 6 December 2021, the Group and Far East Consortium Limited entered into a sale and purchase agreement to purchase a target company which currently owns a land situated in Kai Tak, Hong Kong, for a development divided into a hotel portion and a non-industrial portion (including an office portion) ("the Office Portion"). At completion, the target company will hold only the Office Portion which will become CLP's new Head Office. A coordination agreement was signed on the same date to facilitate the construction and development of the Office Portion directed by CLP. The consideration under the sale and purchase agreement amounted to HK\$3.38 billion subject to post completion adjustments including additional costs in respect of any add-on designs required by the Group. At 31 December 2022, the remaining amount is included in capital commitments under Note 31(A). The transaction is expected to be completed by 2024.
- (b) The most recent actuarial valuation of the defined benefit plans for the Group's Australian subsidiaries, as at 31 December 2022, was prepared by Mr Mark Samuels of Mercer Consulting (Australia) Pty Ltd, a fellow of the Institute of Actuaries of Australia. In respect of the plans for the Group's Australian subsidiaries: (i) the principal actuarial assumptions used include discount rate of 5.2% (2021: 2.9%), long-term salary increase rate of 2.5% to 3.3% (2021: 2.5%) and pension increase rate of 2.5% to 3.5% (2021: 2.0%); (ii) the level of funding is 160% (2021: 145%).

The costs for these defined benefit plans represent an immaterial portion to the Group's total retirement benefit costs. For the year ended 31 December 2022, the associated costs represented 1.0% (2021: 1.5%) of the Group's total retirement benefit costs.

18. Properties for Sale / under Development

Accounting Policy

Properties for sale / under development comprises leasehold land and building and are carried at the lower of cost and net realisable value. Properties for sale / under development are included in current assets when it is expected to be realised or is intended for sales in the normal operating cycle.

On 18 December 2017, the Group and Sino Land Company Limited (Sino Land) agreed to collaborate on redeveloping the Group's former headquarters at Argyle Street for residential purposes and to preserve the Clock Tower building for community use. Under the development arrangement, Sino Land is fully responsible for all development costs such as land premium, construction costs, professional fees etc. and paid a non-refundable upfront payment of HK\$3 billion to the Group.

The arrangement entered into by the Group and Sino Land does not involve an establishment of a separate legal entity and is considered as a joint operation under HKFRS 11 Joint Arrangements. The non-refundable upfront payment forms part of the proceeds from the property development and is recorded as deferred revenue (Note 22(e)). When legal titles of the units in the developed property are passed to the purchasers, deferred revenue and the percentage share of the sale proceeds to which the Group is entitled will be credited to the profit or loss as revenue, while cost of properties will be charged to the profit or loss as cost of sales.

The residential property development was completed in November 2022 and the balance was transferred from properties under development to properties for sale. Cost of properties of HK\$325 million (2021: nil) and deferred revenue of HK\$320 million (2021: nil) were recognised to profit or loss following the completion of sales of certain properties in 2022. The sale of residential units is undergoing.

19. Trade and Other Receivables

Accounting Policy

Trade and other receivables are recognised initially at transaction price and are subsequently stated at amortised cost using the effective interest method, less allowances for expected credit losses. The Group measures the loss allowance for its trade receivables at an amount equal to the lifetime expected credit losses. The amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date to its recognised amount is recognised in profit or loss, as an impairment loss or a reversal of an impairment loss. Trade and other receivables are written off (either partially or in full) when there is no reasonable expectation of recovery.

Expected credit losses are a probability-weighted estimate of credit losses (i.e. the present value of all cash shortfalls) over the expected life of the trade receivables. Expected credit losses on trade receivables are calculated by using the provision matrix approach. Trade receivables are categorised by common risk characteristics that are representative of the customers' abilities to pay all amounts due in accordance with the contractual terms. The provision matrix is determined based on historical observed default rates over the expected life of the trade receivables and is adjusted for forward-looking estimates. At every reporting date the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

If there is no significant increase in credit risk since initial recognition, impairment on other receivables is measured at 12-month expected credit losses. If a significant increase in credit risk has occurred, then impairment is measured as lifetime expected credit losses.

Critical Accounting Estimates and Judgements: Recoverability of Trade Receivables

Provision for expected credit losses is made when the Group does not expect to collect all amounts due. The provision is determined by grouping together trade debtors with similar risk characteristics and collectively or individually assessing them for likelihood of recovery. The provision reflects lifetime expected credit losses i.e. possible default events over the expected life of the trade receivables, weighted by the probability of that default occurring. Judgement has been applied in determining the level of provision for expected credit losses, taking into account the credit risk characteristics of customers and the likelihood of recovery assessed on a combination of collective and individual basis as relevant. While the provision is considered appropriate, changes in estimation basis or in economic conditions could lead to a change in the level of provision recorded and consequently on the charge or credit to profit or loss.

	2022 HK\$M	2021 HK\$M
Trade receivables ^(a)	10,504	11,707 *
Deposits, prepayments and other receivables ^(b)	6,499	2,526
Dividend receivables from		
Joint ventures	76	190
An associate	228	975
Current accounts with ^(c)		
Joint ventures	6	5
An associate	1	1
	17,314	15,404

* Included Apraava Energy's renewable receivables of HK\$883 million and disputed receivables from the offtakers of Jhajjar Power Limited (JPL) of HK\$351 million in which the Group considered JPL to have a strong case.

19. Trade and Other Receivables (continued)

Notes:

(a) Trade receivables

The ageing analysis of the trade receivables at 31 December based on invoice date is as follows:

	2022 HK\$M	2021 HK\$M
30 days or below *	9,257	9,285
31 – 90 days	585	670
Over 90 days	662	1,752
	10,504	11,707

* Including unbilled revenue

Movements in provision for impairment

	2022 HK\$M	2021 HK\$M
Balance at 1 January	1,456	1,602
Provision for impairment	260	246
Receivables written off during the year as uncollectible	(331)	(332)
Amounts reversed	(5)	(2)
Sale of subsidiaries [#]	(419)	-
Exchange differences	(109)	(58)
Balance at 31 December	852	1,456

[#] Included the amount reclassified to assets of disposal group held for sale before completion of the Sell Down (Note 4(a))

Credit risk management

The Group has no significant concentrations of credit risk with respect to the trade receivables in Hong Kong and Australia as their customer bases are widely dispersed in different sectors and industries. The Group has established credit policies for customers in each of its retail businesses.

In Hong Kong, electricity bills are due within two weeks after issuance. To limit the credit risk exposure, the Group has a policy to require cash deposits or bank guarantees from customers for an amount determined from time to time by reference to the usage of the customers, and in the normal course of events will not exceed the highest expected charge for 60 days. For all the deposits held, customers are paid a floating market interest rate equivalent to the HSBC bank saving rate. At 31 December 2022, such cash deposits amounted to HK\$6,551 million (2021: HK\$6,251 million) and the bank guarantees stood at HK\$867 million (2021: HK\$835 million). The customers' deposits are treated on the statement of financial position as current liabilities on the basis that they are repayable on demand.

In Australia, customers are allowed to settle their electricity bills in no more than 45 days after issue, while certain large commercial customers can range up to 90 days. EnergyAustralia has policies in place to ensure that sales of products and services are made to retail customers (including residential and commercial customers) of an appropriate credit quality and collectability is reviewed on an ongoing basis. At 31 December 2022, EnergyAustralia held cash deposits of HK\$82 million (2021: nil) from Commercial and Industrial customers as security in relation to outstanding receivable balances.

Trade receivables arising from sales of electricity to the offtakers in Mainland China, which are mainly state-owned enterprises, are due for settlement within 30 to 90 days after bills issuance. Management has closely monitored the credit qualities and the collectability of these trade receivables.

19. Trade and Other Receivables (continued)

Notes (continued):

(a) Trade receivables (continued)

Expected credit losses

For trade receivables relating to accounts which are long overdue with significant amounts or known insolvencies or non-response to collection activities, they are assessed individually for impairment allowance. CLP Power and EnergyAustralia determine the provision for expected credit losses by grouping together trade receivables with similar credit risk characteristics and collectively assessing them for likelihood of recovery, taking into account prevailing economic conditions and forward looking assumptions.

CLP Power

CLP Power classifies its trade receivables by nature of customer accounts. These include active accounts and terminated accounts.

	Lifetime Expected Credit Loss Rate	Gross Carrying Amount HK\$M	Lifetime Expected Credit Loss HK\$M	Net Carrying Amount HK\$M
At 31 December 2022				
Active accounts				
Provision on individual basis	100%	8	(6)	2
Provision on collective basis	0%*	2,662	(12)	2,650
Terminated accounts				
Provision on individual basis	100%	5	(5)	–
Provision on collective basis	24%	4	(1)	3
		<u>2,679</u>	<u>(24)</u>	<u>2,655</u>
At 31 December 2021				
Active accounts				
Provision on individual basis	100%	14	(8)	6
Provision on collective basis	0%*	2,203	(9)	2,194
Terminated accounts				
Provision on individual basis	100%	3	(3)	–
Provision on collective basis	28%	6	(2)	4
		<u>2,226</u>	<u>(22)</u>	<u>2,204</u>

* Expected credit loss is close to zero as these trade receivables are mostly secured by cash deposits or bank guarantees from customers and have no recent history of default.

19. Trade and Other Receivables (continued)

Notes (continued):

(a) Trade receivables (continued)

Expected credit losses (continued)

EnergyAustralia

EnergyAustralia categorises its trade receivables based on their ageing. EnergyAustralia recognises lifetime expected credit losses for receivables by assessing future cash flows for each group of trade receivables including a probability weighted amount determined by evaluating a range of possible outcomes based on twelve month rolling historical credit loss experience by customer segment, geographical region, tenure and type of customer and applying that weighting to the receivables held at year end. The determining factor impacting collectability is customer attributes. The impact of economic factors, both current and future, is considered in assessing the likelihood of recovery from customers.

	Weighted Average Lifetime Expected Credit Loss Rate	Gross Carrying Amount HK\$M	Lifetime Expected Credit Loss HK\$M	Net Carrying Amount HK\$M
At 31 December 2022				
Current	0%	3,998	(15)	3,983
1 – 30 days	6%	432	(26)	406
31 – 60 days	13%	228	(30)	198
61 – 90 days	18%	168	(30)	138
Over 90 days	57%	1,210	(691)	519
		6,036	(792)	5,244
At 31 December 2021				
Current	1%	3,290	(22)	3,268
1 – 30 days	7%	408	(29)	379
31 – 60 days	18%	221	(39)	182
61 – 90 days	22%	139	(31)	108
Over 90 days	63%	1,371	(866)	505
		5,429	(987)	4,442

Mainland China

As at 31 December 2022, the Group had total receivables of HK\$2,111 million (2021: HK\$2,302 million) relating to unpaid Renewable National Subsidies. The application, approval and settlement of the Renewable National Subsidy are governed by the relevant policies issued by the Central People's Government. All of the relevant wind and solar projects are qualified for renewable energy subsidy in accordance with the prevailing government policies. There is no due date for the settlement of Renewable National Subsidies as the collection is subject to the allocation of funds by relevant government authorities to local grid companies, which takes a relatively long time for settlement. The expected credit loss is close to zero as continuous settlements have been noted with no history of default and the subsidy is funded by the Renewable Energy Development Fund set up and administered by the Ministry of Finance.

- (b) At 31 December 2022, other receivables mainly represented EnergyAustralia's futures margin account of HK\$3.4 billion (2021: HK\$1.1 billion) and the consideration receivable from the sale of Fangchenggang (Note 5(e)) of HK\$1,684 million (2021: nil), 90% of which was received in February 2023 with the remaining to be received in the first half of 2023.
- (c) The current accounts with joint ventures and an associate are unsecured, interest free and have no fixed repayment terms.

20. Bank Balances, Cash and Other Liquid Funds

Accounting Policy

Cash and cash equivalents comprise cash at banks and on hand, demand deposits with banks and other financial institutions, short-term highly liquid investments that are readily convertible to cash, subjected to insignificant risk of change in value and with a maturity of three months or less from date of investment, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities on the statement of financial position.

	2022 HK\$M	2021 HK\$M
Trust accounts (Significant Accounting Policy No. 2(A))	-	299
Deposits with banks with maturities of less than three months	1,289	5,907
Cash at banks and on hand	2,962	1,993
Cash and cash equivalents	4,251	8,199
Bank deposits with maturities of more than three months	2	61
Restricted cash*	33	-
Short-term deposits and restricted cash	35	61
Bank balances, cash and other liquid funds	4,286	8,260

* Represents restricted bank balances held by the stakeholders of the properties held for sale (Note 18) which can be released to stakeholders after relevant conditions are met

The bank balances, cash and other liquid funds are denominated in the following currencies:

	2022 HK\$M	2021 HK\$M
Hong Kong dollar	1,045	6,119
Renminbi	1,664	1,011
Australian dollar	858	335
Indian rupee	-	669
US dollar	697	103
Others	22	23
	4,286	8,260

The balances denominated in the currencies other than the functional currencies of the corresponding Group entities amounted to HK\$404 million (2021: HK\$409 million) which were mostly denominated in Renminbi (2021: Renminbi).

21. Fuel Clause Account

The cost of fuel consumed by CLP Power is passed on to the customers. Any variations between the actual cost of fuel and the fuel cost billed to customers are captured in the fuel clause account. The balance on the account (inclusive of interest) represents amounts over-recovered or under-recovered and is treated as an amount due to or from customers. CLP Power may adjust fuel related tariff from time to time, including on a monthly basis, in accordance with the SoC, to reflect changes in the cost of fuels consumed by the SoC Companies for the generation of electricity. As at 31 December 2022, the fuel clause account asset balance represented the right of CLP Power to collect the under-recovered fuel costs from the customers under the SoC.

22. Trade Payables and Other Liabilities

Accounting Policy

(A) Trade and other payables

Trade and other payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

(B) Lease liabilities

At the commencement date of the lease, the Group recognises lease liabilities measured at the present value of lease payments with reference to an expected lease term, which includes optional lease periods when the lessee is reasonably certain to exercise the option to extend or not to terminate the lease. The lease payments include fixed payments (including in substance fixed payments) less any lease incentives receivable; variable lease payments that depend on an index or a rate; and amounts expected to be paid under residual value guarantees. Variable lease payments that do not depend on an index or a rate are recognised as expenses (unless they are incurred to produce inventories) in the period in which the event or condition that triggers the payment occurs.

Lease payments are discounted using the interest rate implicit in the lease, if this cannot be readily determined, an incremental borrowing rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment, over a similar term and with a similar security. Lease liabilities are subsequently measured by increasing the carrying amounts to reflect interest on the lease liabilities (using the effective interest method) and by reducing the carrying amounts to reflect the lease payments made. Lease liabilities are remeasured (with a corresponding adjustment made to the related right-of-use asset) when there is a change in future lease payments in case of renegotiation, changes of an index or rate or in case of reassessment of options under certain conditions.

	2022 HK\$M	2021 HK\$M
Trade payables ^(a)	6,511	6,119
Other payables and accruals	8,868	7,504
Lease liabilities ^(b)	229	217
Advances from non-controlling interests ^(c)	860	832
Current accounts with ^(d)		
Joint ventures	2	1
An associate	359	564
Deferred revenue ^(e)	2,798	3,144
	19,627	18,381

Notes:

(a) The ageing analysis of trade payables at 31 December based on invoice date is as follows:

	2022 HK\$M	2021 HK\$M
30 days or below	6,345	5,800
31 – 90 days	144	219
Over 90 days	22	100
	6,511	6,119

At 31 December 2022, trade payables denominated in currencies other than the functional currencies of the corresponding Group entities amounted to HK\$1,280 million (2021: HK\$1,073 million), of which HK\$1,130 million (2021: HK\$897 million) were denominated in US dollar (2021: US dollar).

22. Trade Payables and Other Liabilities (continued)

Notes (continued):

(b) Maturity profile of the lease liabilities at 31 December is as follows:

	2022 HK\$M	2021 HK\$M
Within one year	229	217
Between one and two years	167	213
Between two and five years	283	346
Over five years	276	393
	955	1,169
Less: amount due after one year included under other non-current liabilities	(726)	(952)
	229	217

(c) The advances from non-controlling interests represented the advances from China Southern Power Grid International (HK) Co., Limited (CSGHIK) to CAPCO. Pursuant to the agreement between the shareholders of CAPCO, both CLP Power and CSGHIK are required to provide shareholders' advances pro rata to their shareholdings in CAPCO. The advances are unsecured, interest free and repayable on demand. The advances are denominated in Hong Kong dollar.

(d) The amounts payable to joint ventures and an associate are unsecured, interest free and have no fixed repayment terms.

(e) Deferred revenue included the non-refundable upfront payment for the property development at Argyle Street of HK\$2.7 billion (2021: HK\$3 billion) (Note 18) and payments received in advance for other services. Non-current deferred revenue of HK\$1,474 million (2021: HK\$1,459 million) was included under other non-current liabilities.

23. Bank Loans and Other Borrowings

Accounting Policy

Borrowings are recognised initially at fair value of proceeds received, net of transaction costs incurred. Transaction costs are incremental costs that are directly attributable to the acquisition or issue of a financial liability. Borrowings are subsequently stated at amortised cost. Any difference between the proceeds (net of transaction costs) and the redemption value is amortised to profit or loss or capitalised as cost of the qualifying assets over the period of the borrowings using the effective interest method. Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

The Group's bank loans and other borrowings at 31 December were repayable as follows:

	Bank Loans		Other Borrowings *		Total	
	2022 HK\$M	2021 HK\$M	2022 HK\$M	2021 HK\$M	2022 HK\$M	2021 HK\$M
Within one year	8,275	8,893	3,039	1,619	11,314	10,512
Between one and two years	5,728	3,068	880	3,410	6,608	6,478
Between two to five years	5,866	3,657	11,742	6,253	17,608	9,910
Over five years	3,870	3,555	19,817	27,760	23,687	31,315
	23,739	19,173	35,478	39,042	59,217	58,215

* Relating to Medium Term Notes of HK\$35,478 million (2021: mainly Medium Term Notes of HK\$37,472 million and bonds of HK\$1,274 million).



Another presentation of the Group's liquidity risk is set out on pages 295 to 297.

23. Bank Loans and Other Borrowings (continued)

Bank loans for subsidiaries in Mainland China of HK\$5,085 million (2021: HK\$5,476 million) are secured by rights of receipt of tariff and by fixed assets and land use rights with carrying amounts of HK\$9,574 million (2021: HK\$11,069 million). Total borrowings at 31 December 2021 included secured liabilities of Apraava Energy group of HK\$6,008 million.

At 31 December 2022 and 2021, all of the Group's borrowings are either in the functional currencies of the corresponding Group entities or hedged into those currencies.

At 31 December 2022, the Group had undrawn bank loans and overdraft facilities of HK\$31,633 million (2021: HK\$28,076 million).

 An analysis of borrowings by currencies is shown in "Financial Review" on page 34 of the Annual Report.


24. Deferred Tax

Accounting Policy

Deferred tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the end of the reporting period and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled. Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred tax is also provided on temporary differences arising on investments in subsidiaries, joint ventures and associates, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets and liabilities are netted off when the taxes relate to the same tax authority and where offsetting is legally enforceable. The following amounts, determined after appropriate offsetting, are shown separately on the consolidated statement of financial position:

	2022 HK\$M	2021 HK\$M
Deferred tax assets	2,132	376
Deferred tax liabilities	(16,246)	(15,886)
	(14,114)	(15,510)

 Deferred tax asset = income tax recoverable in the future
Deferred tax liability = income tax payable in the future

24. Deferred Tax (continued)

The gross movement on the deferred tax account is as follows:

	2022 HK\$M	2021 HK\$M
Balance at 1 January	(15,510)	(14,858)
Sale of subsidiaries* and a joint venture	373	-
Credited/(charged) to profit or loss (Note 7)	1,546	(245)
Charged to other comprehensive income	(496)	(398)
Exchange differences	(27)	(9)
Balance at 31 December	(14,114)	(15,510)

The movements in the deferred tax assets and liabilities (prior to offsetting of balances within the same tax jurisdiction) during the year are as follows:

Deferred tax assets (prior to offset)

	Tax Losses ^(a)		Accruals and Provisions		Others ^(b)		Total	
	2022 HK\$M	2021 HK\$M	2022 HK\$M	2021 HK\$M	2022 HK\$M	2021 HK\$M	2022 HK\$M	2021 HK\$M
Balance at 1 January	468	415	1,739	1,609	1,246	1,436	3,453	3,460
Acquisition of a subsidiary	-	36	-	-	-	-	-	36
Sale of subsidiaries* and a joint venture	(355)	-	(106)	-	(364)	-	(825)	-
Credited/(charged) to profit or loss	854	22	(102)	238	1,146	(127)	1,898	133
Charged to other comprehensive income	-	-	(4)	(33)	(28)	(20)	(32)	(53)
Exchange differences	(65)	(5)	(119)	(75)	(115)	(43)	(299)	(123)
Balance at 31 December	902	468	1,408	1,739	1,885	1,246	4,195	3,453

Deferred tax liabilities (prior to offset)

	Accelerated Tax		Withholding Tax		Intangibles		Others ^(b)		Total	
	2022 HK\$M	2021 HK\$M	2022 HK\$M	2021 HK\$M	2022 HK\$M	2021 HK\$M	2022 HK\$M	2021 HK\$M	2022 HK\$M	2021 HK\$M
Balance at 1 January	(16,560)	(15,829)	(342)	(322)	(677)	(720)	(1,384)	(1,447)	(18,963)	(18,318)
Acquisition of a subsidiary	-	(36)	-	-	-	-	-	-	-	(36)
Sale of subsidiaries* and a joint venture	1,134	-	4	-	-	-	60	-	1,198	-
(Charged)/ credited to profit or loss	(817)	(737)	(73)	(20)	52	43	486	336	(352)	(378)
Charged to other comprehensive income	-	-	-	-	-	-	(464)	(345)	(464)	(345)
Exchange differences	162	42	14	-	-	-	96	72	272	114
Balance at 31 December	(16,081)	(16,560)	(397)	(342)	(625)	(677)	(1,206)	(1,384)	(18,309)	(18,963)

* Included the amount reclassified to assets/liabilities of disposal group held for sale before completion of the Sell Down (Note 4(a))

Notes:

- The deferred tax asset arising from tax losses mainly related to the electricity business in Australia (2021: Australia and India). There is no expiry on tax losses recognised.
- Others mainly related to temporary differences arising from derivative financial instruments, right-of-use assets and corresponding lease liabilities.

25. SoC Reserve Accounts

Critical Accounting Estimates and Judgements: Classification of SoC-related Accounts

As stipulated in the SoC, the balances in the Tariff Stabilisation Fund and the Rate Reduction Reserve shall represent liabilities in the financial statements of CLP Power and shall not accrue to the benefit of its shareholders save as provided for by the SoC. The Group considers that CLP Power is required under the SoC to discharge its obligations arising from the SoC upon the expiry of the SoC Agreement such that these account balances meet the definition of a liability.

The Tariff Stabilisation Fund, Rate Reduction Reserve and Rent and Rates Refunds of the Group's major subsidiary, CLP Power, are collectively referred to as SoC reserve accounts. The respective balances at the end of the year are:

	2022 HK\$M	2021 HK\$M
Tariff Stabilisation Fund (A)	2,928	3,109
Rate Reduction Reserve (B)	40	3
Rent and Rates Refunds (C)	126	328
	3,094	3,440

The movements in SoC reserve accounts during the year are shown as follows:

(A) Tariff Stabilisation Fund

	2022 HK\$M	2021 HK\$M
At 1 January	3,109	2,019
Transfer from Rate Reduction Reserve	3	18
Transfer under the SoC ^(a)		
– transfer for SoC from revenue (Note 2)	604	1,183
– charge for asset decommissioning ^(b)	(73)	(111)
Special rebate to customers ^(c)	(715)	–
At 31 December	2,928	3,109

Notes:

- (a) Under the SoC Agreement, if the gross tariff revenue in a period is less than or exceeds the total of the SoC operating costs, permitted return and taxation charges, such deficiency shall be deducted from, or such excess shall be added to, the Tariff Stabilisation Fund. In any period, the amount of deduction from or addition to the Tariff Stabilisation Fund is recognised as a revenue adjustment to the extent that the return and charges under the SoC are recognised in the profit or loss.
- (b) Under the SoC, a periodic charge to accrue for asset decommissioning is made with corresponding deferred liabilities recognised in the statement of financial position of the SoC Companies. The balance of the asset decommissioning liabilities account of HK\$1,463 million (2021: HK\$1,421 million) (Note 26) recognised under the SoC represents a liability of the Group.
- (c) A special rebate of HKc2.1 per unit was made to customers during the year.

25. SoC Reserve Accounts (continued)**(B) Rate Reduction Reserve**

	2022	2021
	HK\$M	HK\$M
At 1 January	3	18
Transfer to Tariff Stabilisation Fund	(3)	(18)
Interest expense charged to profit or loss (Note 6)	40	3
At 31 December	40	3

(C) Rent and Rates Refunds

CLP Power has been challenging the amount of Government rent and rates levied dating back to the year of assessment 2001/02. Following the settlement of appeals up to 2017/18 in 2020, CLP Power further reached settlement with the Hong Kong Government in respect of the remaining appeals from 2018/19 to 2021/22.

Following settlement with the Hong Kong Government of the remaining appeals from 2018/19 to 2021/22, a refund of HK\$200 million was received for the appeals from 2018/19 to 2020/21, and a HK\$40 million refund was receivable for the 2021/22 appeal. Using the total amount of refunds from the Hong Kong Government for all appeal years of HK\$3,031 million, CLP Power has provided customers with the Rent and Rates Special Rebate. Including the rebate of HK\$442 million paid during the year, the Rent and Rates Special Rebate made to customers has reached an aggregate amount of HK\$2,905 million.

The refunds are classified within the SoC reserve accounts. The Rent and Rates Special Rebate paid to customers was offset against the refunds received.

26. Asset Decommissioning Liabilities and Retirement Obligations**Accounting Policy**

When the Group has a legal and /or constructive obligation for remediation and the likelihood of economic outflow is probable, provisions for asset retirement obligations are recorded for estimated remediation costs of reclamation, plant closure, dismantling and waste disposal. A provision for asset retirement costs is determined by estimating the expected costs associated to remediate the site based on the current legal requirements and technologies and is discounted to its present value with an unwind adjustment recognised in finance costs. An asset is recognised on initial recognition of the provision and is depreciated over the useful life of the facility. The asset retirement costs are reviewed annually and adjustments are made to the carrying amount of the assets to reflect changes made to these estimated discount rates or future costs.

Critical Accounting Estimates and Judgements

Estimating the amount and timing of the obligation to be recorded requires significant judgement. Management has assessed the Group's obligations for each asset based on the local regulatory environment and expected closure dates.

CLP Power has been investing in the transmission and distribution network to supply electricity to the customers in its supply area in Hong Kong. As CLP Power expects that the land sites being used for the transmission and distribution network will continue to be used for the distribution of electricity supply to its customers, it is currently considered remote that the network would be removed from the existing land sites. Therefore in accordance with applicable accounting standards, asset retirement obligations for these assets have not been recognised by CLP Power.

26. Asset Decommissioning Liabilities and Retirement Obligations (continued)

Critical Accounting Estimates and Judgements (continued)

As part of the current development plan agreed with the Hong Kong Government, CAPCO is retiring the coal-fired generation units at Castle Peak "A" Station (CPA) between 2022 to 2025. Following this retirement, the removal of CPA's coal-fired generation units has become probable. In support of the Government's net-zero carbon emissions targets in the "Hong Kong's Climate Action Plan 2050", CAPCO is in discussion with the Government to phase out the use of coal for daily electricity generation in Castle Peak "B" Station and work on ways to convert its gas-fired generation facilities to operate on green fuels. While it is envisaged that these remaining generation units will have their roles in supporting the Government's Climate Action Plan 2050, with the continuous development in decarbonisation technologies, the removal of these units and replacement by alternative facilities is possible. Under the SoC, CAPCO makes a periodic charge to accrue in the statement of financial position a liability balance to be utilised in discharging asset decommissioning costs if and when incurred. CAPCO considers that the dismantling obligation for the CPA units is covered under the asset decommissioning liability accrued under the SoC as at 31 December 2022. While no provision for asset retirement obligations for the other generation units of CAPCO has been recognised, it is expected that if such an obligation be incurred, it will be met by the liability accrued and the cost recovery mechanism under the SoC.

Asset retirement obligations of EnergyAustralia as at 31 December 2022 amounted to HK\$2,982 million (2021: HK\$2,950 million) which mainly related to the provision for land remediation and decommissioning of generation assets. The provisions are largely based on estimates by external and internal experts that are discounted using internally determined end of plant lives. The calculation of the provision requires management judgement with respect to estimating the timing of asset removal, costs to remove infrastructure, remediate soil and groundwater, water usage and technological developments. The terms associated with the decommissioning of certain assets including site restoration plans are expected to evolve as plans are refined and agreed with the relevant bodies when approaching plant closure dates. Any future agreements with regulators or changes to regulatory requirements could impact the cost estimates used in the decommissioning provision. On an ongoing basis, we continually review and update underlying assumptions relating to forward rehabilitation estimates and timelines.

	2022 HK\$M	2021 HK\$M
Asset decommissioning liabilities (Note 25(A)(b))	1,463	1,421
Provisions for land remediation and restoration costs (note)	2,912	2,925
	4,375	4,346

Note: The movements of the balances, including the current portion of HK\$70 million (2021: HK\$25 million) under the Group's trade payables and other liabilities, are as follows:

	2022 HK\$M	2021 HK\$M
Balance at 1 January	2,950	2,704
Sale of a subsidiary	-	(52)
Additional provisions	-	216
Effect of changes in discount rate	207	207
Amounts used	(21)	(33)
Unwinding of discount	46	51
Exchange differences	(200)	(143)
Balance at 31 December	2,982	2,950


27. Share Capital

	2022		2021	
	Number of Ordinary Shares	Amount HK\$M	Number of Ordinary Shares	Amount HK\$M
Issued and fully paid, at 31 December	2,526,450,570	23,243	2,526,450,570	23,243

28. Reserves

The movements in reserves attributable to shareholders during the year are shown as follows:

	Translation Reserve HK\$M	Cash Flow Hedge Reserve HK\$M	Cost of Hedging Reserve HK\$M	Other Reserves HK\$M	Retained Profits HK\$M	Total HK\$M
Balance at 1 January 2021	(4,534)	118	97	1,529	91,747	88,957
Earnings attributable to shareholders	-	-	-	-	8,491	8,491
Other comprehensive income						
Exchange differences on translation of						
Subsidiaries	(1,241)	(46)	-	-	46	(1,241)
Joint ventures	204	-	-	-	-	204
Associates	199	-	-	-	-	199
Cash flow hedges						
Net fair value gains	-	2,249	-	-	-	2,249
Reclassification to profit or loss	-	(930)	-	-	-	(930)
Tax on the above items	-	(385)	-	-	-	(385)
Costs of hedging						
Net fair value losses	-	-	(143)	-	-	(143)
Reclassification to profit or loss	-	-	23	-	-	23
Tax on the above items	-	-	20	-	-	20
Fair value gains on investments	-	-	-	100	-	100
Remeasurement gains on defined benefit plans	-	-	-	-	77	77
Share of other comprehensive income of joint ventures	-	(1)	-	(3)	-	(4)
Total comprehensive income attributable to shareholders	(838)	887	(100)	97	8,614	8,660
Transfer to fixed assets	-	6	-	-	-	6
Appropriation of reserves	-	-	-	16	(16)	-
Dividends paid						
2020 fourth interim	-	-	-	-	(3,057)	(3,057)
2021 first to third interim	-	-	-	-	(4,775)	(4,775)
Balance at 31 December 2021	(5,372)	1,011	(3)	1,642	92,513 ^(note)	89,791

 Translation reserve – exchange rates movements arising from the consolidation of Group entities with different reporting currencies

Cash flow hedge / Cost of hedging reserve – deferred fair value gains/losses on derivative financial instruments which are qualified for hedge accounting; reclassify to profit or loss upon settlement of derivatives or amortisation of costs of hedging

Other reserves – mainly comprise revaluation reserve, other consolidated reserve arising from change in ownership interests in a subsidiary, and other legal reserves allocated from retained profits to meet local statutory and regulatory requirements of Group entities

28. Reserves (continued)

	Translation Reserve HK\$M	Cash Flow Hedge Reserve HK\$M	Cost of Hedging Reserve HK\$M	Other Reserves HK\$M	Retained Profits HK\$M	Total HK\$M
Balance at 1 January 2022	(5,372)	1,011	(3)	1,642	92,513	89,791
Earnings attributable to shareholders	-	-	-	-	924	924
Other comprehensive income						
Exchange differences on translation of						
Subsidiaries	(2,779)	(109)	-	-	109	(2,779)
Joint ventures	(857)	-	-	-	-	(857)
Associates	(644)	-	-	-	-	(644)
Cash flow hedges						
Net fair value gains	-	4,766	-	-	-	4,766
Reclassification to profit or loss	-	(2,962)	-	-	-	(2,962)
Tax on the above items	-	(508)	-	-	-	(508)
Costs of hedging						
Net fair value losses	-	-	(238)	-	-	(238)
Reclassification to profit or loss	-	-	59	-	-	59
Tax on the above items	-	-	30	-	-	30
Fair value losses on investments	-	-	-	(73)	-	(73)
Remeasurement gains on defined benefit plans	-	-	-	-	10	10
Share of other comprehensive income of joint ventures	-	(1)	-	-	-	(1)
Sale of subsidiaries (Note 4(a))	2,515	(10)	-	789	(789)	2,505
Sale of a joint venture (Note 5(e))	18	-	-	-	-	18
Release of revaluation gains upon sale of properties	-	-	-	(219)	219	-
Total comprehensive income attributable to shareholders	(1,747)	1,176	(149)	497	473	250
Transfer to fixed assets	-	46	-	-	-	46
Appropriation of reserves	-	-	-	55	(55)	-
Dividends paid						
2021 fourth interim	-	-	-	-	(3,057)	(3,057)
2022 first to third interim	-	-	-	-	(4,775)	(4,775)
Balance at 31 December 2022	(7,119)	2,233	(152)	2,194	85,099^(note)	82,255

Note: The fourth interim dividend declared for the year ended 31 December 2022 was HK\$3,057 million (2021: HK\$3,057 million). The balance of retained profits after the fourth interim dividend of the Group was HK\$82,042 million (2021: HK\$89,456 million).

29. Perpetual Capital Securities and Other Non-Controlling Interests

(A) Perpetual Capital Securities

A total of US\$500 million perpetual capital securities was issued by the wholly-owned subsidiary, CLP Power HK Finance Ltd. in 2019. The securities are perpetual, non-callable in the first 5.25 years (with issuer call option at par at any time in the 3 months before 5 February 2025) and entitle the holders to receive distributions at a distribution rate of 3.55% per annum in the first 5.25 years, floating thereafter and with fixed step up margins at year 10.25 and at year 25.25, payable semi-annually in arrears, cumulative and compounding. The distributions are at the Group's discretion, as long as the issuer and CLP Power, as guarantor of the securities, do not (a) declare or pay dividends to their shareholders or (b) cancel or reduce their share capitals within each distribution payment period.

29. Perpetual Capital Securities and Other Non-Controlling Interests (continued)

(B) Other Non-controlling Interests

Other non-controlling interests included CSGHK's pro-rata share of HK\$5,115 million (2021: HK\$5,115 million) of redeemable shareholder capital of CAPCO. The redeemable shareholder capital is subordinated, unsecured, interest free and has no fixed terms of repayment. CAPCO can, at its sole discretion, redeem all or part of the redeemable shareholder capital at any time after 31 December 2032.

As both the perpetual capital securities and redeemable shareholder capital do not contain any contractual obligation to pay cash or other financial assets, in accordance with HKAS 32, they are classified as equity and regarded as part of non-controlling interests for accounting purpose.

30. Notes to the Consolidated Statement of Cash Flows

(A) Reconciliation of profit before income tax to net cash inflow from operations

	2022 HK\$M	2021 HK\$M
Profit before income tax	1,590	11,439
Adjustments for:		
Finance costs	2,085	1,744
Finance income	(243)	(108)
Dividend income from equity investments	(14)	(15)
Share of results of joint ventures and associates, net of income tax	(2,460)	(1,974)
Depreciation and amortisation	8,904	9,308
Impairment charge	265	586
Net losses on disposal of fixed assets	241	386
Revaluation loss on investment property	57	34
Loss on write-off of other intangible assets	185	-
Fair value losses/(gains) on investment at fair value through profit or loss	13	(163)
Loss/(gain) on sale of subsidiaries	4,312	(79)
Loss/(gain) on sale of a joint venture	185	(307)
Fair value changes of non-debt related derivative financial instruments and net exchange difference	1,922	(1,642)
The Settlement (Note 4(b))	-	1,110
SoC items		
Increase in customers' deposits	300	356
Increase in fuel clause account	(2,357)	(1,455)
Decrease in rent and rates refunds	(242)	(9)
Special rebates to customers	(715)	-
Transfer for SoC	604	1,183
	(2,410)	75
Increase in trade receivables and other current assets	(4,750)	(2,347)
Increase in restricted cash	(33)	-
Changes in non-debt related derivative financial instruments	2,512	2,068
Increase in trade and other payables	1,398	128
Decrease in current accounts due to joint ventures and associates	(204)	(20)
Net cash inflow from operations	13,555	20,223

30. Notes to the Consolidated Statement of Cash Flows (continued)

(B) Reconciliation of liabilities arising from financing activities

	Bank Loans and Other Borrowings HK\$M	Interest and Other Finance Costs Payables HK\$M	Lease Liabilities HK\$M	Debt-related Derivative Financial Instruments HK\$M	Advances from Non-controlling Interests HK\$M	Total HK\$M
Balance at 1 January 2021	54,348	134	1,411	830	1,021	57,744
Cash flows changes						
Proceeds from long-term borrowings	7,796	-	-	-	-	7,796
Repayment of long-term borrowings	(5,329)	-	-	-	-	(5,329)
Increase in short-term borrowings	314	-	-	-	-	314
Payment of principal portion of lease liabilities	-	-	(271)	-	-	(271)
Interest and other finance costs paid	-	(1,575)	-	-	-	(1,575)
Settlement of derivative financial instruments	-	-	-	(366)	-	(366)
Decrease in advances from non-controlling interests	-	-	-	-	(189)	(189)
Non-cash changes						
Acquisition of a subsidiary	1,049	17	-	-	-	1,066
Fair value losses of derivative financial instruments charged to equity	-	-	-	376	-	376
Additions of leases	-	-	29	-	-	29
Net exchange and translation differences	(278)	(1)	(57)	-	-	(336)
Interest and other finance costs charged to profit or loss	-	1,536	57	98	-	1,691
Other non-cash movements	315	3	-	-	-	318
Balance at 31 December 2021	58,215	114	1,169	938	832	61,268
Balance at 1 January 2022	58,215	114	1,169	938	832	61,268
Cash flows changes						
Proceeds from long-term borrowings	20,121	-	-	-	-	20,121
Repayment of long-term borrowings	(12,782)	-	-	-	-	(12,782)
Increase in short-term borrowings	2,957	-	-	-	-	2,957
Payment of principal portion of lease liabilities	-	-	(261)	-	-	(261)
Interest and other finance costs paid	-	(1,854)	-	-	-	(1,854)
Settlement of derivative financial instruments	-	-	-	(267)	-	(267)
Increase in advances from non-controlling interests	-	-	-	-	28	28
Non-cash changes						
Sale of subsidiaries (Note 4(a))	(7,066)	(11)	(4)	121	-	(6,960)
Fair value losses of derivative financial instruments charged to equity	-	-	-	158	-	158
Additions of leases	-	-	87	-	-	87
Net exchange and translation differences	(2,228)	(2)	(70)	7	-	(2,293)
Interest and other finance costs charged to profit or loss	-	1,833	47	457	-	2,337
Other non-cash movements	-	82	(13)	-	-	69
Balance at 31 December 2022	59,217	162	955	1,414	860	62,608

31. Commitments

(A) Capital expenditure contracted for but not yet incurred at the end of the year is as follows:

	2022 HK\$M	2021 HK\$M
Fixed assets and leasehold land	9,683	13,150
Intangible assets	3	-
	9,686	13,150

(B) At 31 December 2022, leases for assets committed but not yet commenced were as follows:

(i) Kidston Pumped Hydro Energy Storage Facility

The Group has entered into a long-term Energy Storage Services Agreement (ESSA) to be the market operator of the 250MW Kidston pumped hydro energy storage facility in Queensland. This facility is currently under construction and the ESSA is subject to a number of conditions precedent which must be satisfied before the lease commencement date, which is expected to occur before 31 December 2025. At 31 December 2022, the expected undiscounted contractual lease payments under this agreement were approximately HK\$1.9 billion (2021: HK\$2.1 billion).

(ii) Riverina Battery Storage Systems

The Group has entered into two long-term Battery Storage Services Agreements to be the market operator of two Riverina battery storage systems with a combined 90MW capacity in New South Wales. These facilities are currently under construction and the lease commencement date is expected to occur in December 2023. At 31 December 2022, the expected undiscounted contractual lease payments under these agreements were approximately HK\$0.4 billion (2021: nil).

(C) Equity contributions to be made for joint ventures and private equity partnerships at 31 December 2022 were HK\$199 million (2021: HK\$54 million) and HK\$163 million (2021: HK\$203 million) respectively.

32. Related Party Transactions

Accounting Policy

Related parties are individuals and companies, including subsidiaries, fellow subsidiaries, joint ventures, associates and key management personnel, where the individual or company has the ability, directly or indirectly, to control or jointly control the other party or exercise significant influence over the other party in making financial and operating decisions. A close family member of any such individual is considered to be a related party.

Related Parties ≠ Connected Parties

They sometimes overlap but should not be confused. Accounting standards define related parties, while the Listing Rules of the Hong Kong Stock Exchange define connected parties.

Below are the more significant transactions with related parties for the year:

(A) CLP Power is obliged to purchase 70% of the output of Guangdong Daya Bay Nuclear Power Station (GNPS). The price paid by CLP Power for electricity generated by GNPS throughout the terms of the PPA is determined by a formula based on GNPS's operating costs and a calculation of profits with reference to the capacity factors. The purchase of nuclear electricity under the arrangement was HK\$5,822 million (2021: HK\$5,678 million).

Under a separate purchase arrangement with GNPJVC and its shareholder, Guangdong Nuclear Investment Company Limited, CLP Power would purchase approximately 10% of additional nuclear electricity from GNPS on a best endeavour basis from October 2014 to end of 2023, at the same unit price as that under the above purchase arrangement. The purchase of nuclear electricity under the arrangements was HK\$838 million (2021: HK\$813 million).

32. Related Party Transactions (continued)

(B) The loans and shareholder's loan facilities to joint ventures are disclosed under Note 14. Other amounts due from and to the related parties at 31 December 2022 are disclosed in Notes 19 and 22 respectively. At 31 December 2022, the Group did not have any guarantees which were of a significant amount given to or received from these entities (2021: nil).

(C) Remuneration of key management personnel

Under HKAS 24 Related Party Disclosures, key management personnel are defined as those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including any directors (whether executive or otherwise) of the Group. The total remuneration of the key management personnel shown below comprises the Non-executive Directors and the Senior Management Group. During the year, members of the Senior Management Group include one (2021: two) Executive Director and ten (2021: ten) senior management personnel.

	2022 HK\$M	2021 HK\$M
Fees	14	13
Recurring remuneration items (note)		
Base compensation, allowances & benefits	62	73
Performance bonus		
Annual incentive	45	67
Long-term incentive	25	35
Provident fund contribution	13	14
Non-recurring remuneration items (note)		
Other payments	15	24
	174	226

Note: Refer to remuneration items on page 182 of Human Resources & Remuneration Committee Report.

At 31 December 2022, the CLP Holdings' Board was composed of thirteen Non-executive Directors and one Executive Director. Remuneration of all Directors for the year totalled HK\$42 million (2021: HK\$68 million). The five highest paid individuals in the Group during the year included one Director (2021: one Director and a former director) and four members (2021: three members) of Senior Management. The total remuneration of these five highest paid individuals amounted to HK\$93 million (2021: HK\$119 million). Further details of the remuneration of the Director and Senior Management, on a named basis, and remuneration paid to the five highest paid individuals by bands are disclosed in highlighted sections of the Human Resources & Remuneration Committee Report with a heading of "Audited" on pages 181 to 184 and 190 to 193. These sections are part of the financial statements.

(D) Interest of Directors


There are no loans, quasi-loans or other dealings in favour of directors, their controlled body corporates and connected entities (2021: nil).

During the year and at the year end, no director of the Company had or has a material interest, directly or indirectly, in any significant transactions, arrangements and contracts in relation to the Group's business to which the Group was or is a party (2021: nil).

33. Statement of Financial Position of the Company

	2022 HK\$M	2021 HK\$M
Non-current assets		
Fixed assets	151	171
Right-of-use assets	93	44
Investments in subsidiaries	43,047	44,651
Other non-current assets	17	15
	43,308	44,881
Current assets		
Trade and other receivables	58	80
Dividend receivable	2,500	2,500
Cash and cash equivalents	24	27
	2,582	2,607
Current liabilities		
Trade payables and other liabilities	(539)	(543)
Net current assets	2,043	2,064
Total assets less current liabilities	45,351	46,945
Financed by:		
Equity		
Share capital	23,243	23,243
Retained profits	22,052	23,671
Shareholders' funds	45,295	46,914
Non-current liabilities		
Lease and other liabilities	56	31
Equity and non-current liabilities	45,351	46,945
The movement of retained profits is as follows:		
Balance at 1 January	23,671	24,308
Profit and total comprehensive income for the year	6,213	7,195
Dividends paid		
2021/2020 fourth interim	(3,057)	(3,057)
2022/2021 first to third interim	(4,775)	(4,775)
Balance at 31 December	22,052	23,671

The fourth interim dividend declared for the year ended 31 December 2022 was HK\$3,057 million (2021: HK\$3,057 million). The balance of retained profits after the fourth interim dividend of the Company was HK\$18,995 million (2021: HK\$20,614 million).



Andrew Brandler
Vice Chairman



Richard Lancaster
Chief Executive Officer



Nicolas Tissot
Chief Financial Officer

Hong Kong, 27 February 2023

34. Subsidiaries

The table below lists the principal subsidiaries of the Group at 31 December 2022:

Name	Issued Share Capital/ Registered Capital	% of Ownership Interest at 31 December 2021 and 2022	Place of Incorporation/ Business	Principal Activity
CLP Power Hong Kong Limited	HK\$20,400,007,269.65 divided into 2,488,320,000 ordinary shares	100	Hong Kong	Generation and supply of electricity
Castle Peak Power Company Limited	HK\$50,000,000 divided into 500,000 ordinary shares	70 ^(a)	Hong Kong	Generation and sale of electricity
Hong Kong Pumped Storage Development Company, Limited	HK\$10,000,000 divided into 100,000 ordinary shares	100 ^(a)	Hong Kong	Provision of pumped storage services
Hong Kong Nuclear Investment Company Limited	HK\$300,000,000 divided into 300,000 ordinary shares	100	Hong Kong/ Mainland China	Power projects investment holding
CLP Nuclear Investment Company Limited	1 ordinary share of US\$1 each	100	Hong Kong/ British Virgin Islands	Power projects investment holding
CLPe Holdings Limited	HK\$49,950,002 divided into 49,950,002 ordinary shares	100	Hong Kong	Investment holding of energy & infrastructure solutions and e-commerce business
CLP Power Asia Limited	1,000 ordinary shares of US\$1 each	100	British Virgin Islands/ International and Mainland China	Power projects investment holding
CLP Power International Limited	692,000 ordinary shares of US\$1,000 each	100 ^(a)	British Virgin Islands/ International	Power projects investment holding
CLP Power China Limited	192,000,000 ordinary shares of US\$1 each	100 ^(a)	British Virgin Islands/ Mainland China and Hong Kong	Power projects investment holding
CLP Properties Limited	HK\$150,000,000 divided into 15,000,000 ordinary shares	100	Hong Kong	Property investment holding
CLP Innovation Enterprises Limited	1 ordinary share of HK\$1 each	100	Hong Kong	Innovation projects investment holding
EnergyAustralia Holdings Limited	A\$1,585,491,005 for 1,585,491,005 ordinary shares	100 ^(a)	Australia	Energy business investment holding
EnergyAustralia Yallourn Pty Ltd	A\$15 for 15 ordinary shares	100 ^(a)	Australia	Generation and supply of electricity
EnergyAustralia Pty Ltd	A\$3,368,686,988 for 3,368,686,988 ordinary shares	100 ^(a)	Australia	Retailing of electricity and gas

34. Subsidiaries (continued)

Name	Issued Share Capital / Registered Capital	% of Ownership Interest at 31 December 2021 and 2022	Place of Incorporation / Business	Principal Activity
EnergyAustralia NSW Pty Ltd	A\$2 for 2 ordinary shares	100 ^(a)	Australia	Generation of electricity
CLP Sichuan (Jiangbian) Power Company Limited ^(b)	RMB496,380,000	100 ^(a)	Mainland China	Generation of electricity
Guangdong Huaiji Changxin Hydro-electric Power Company Limited ^(c)	RMB69,098,976	84.9 ^(a)	Mainland China	Generation of electricity
Guangdong Huaiji Gaotang Hydro-electric Power Company Limited ^(c)	RMB249,430,049	84.9 ^(a)	Mainland China	Generation of electricity
Guangdong Huaiji Weifa Hydro-electric Power Company Limited ^(c)	US\$13,266,667	84.9 ^(a)	Mainland China	Generation of electricity
Guangdong Huaiji Xinlian Hydro-electric Power Company Limited ^(c)	RMB141,475,383	84.9 ^(a)	Mainland China	Generation of electricity

Notes:

(a) Indirectly held through subsidiaries of the Company

(b) Registered as a Wholly Foreign Owned Enterprise under PRC law

(c) Registered as Sino-Foreign Cooperative Joint Ventures under PRC law

Summarised financial information of CAPCO which has material non-controlling interest at 31 December 2022, is set out below:

	2022 HK\$M	2021 HK\$M
Results for the year		
Revenue	25,471	19,365
Profit for the year	3,205	3,008
Other comprehensive income for the year	(64)	(45)
Total comprehensive income for the year	3,141	2,963
Dividends paid to non-controlling interests	947	885
Net assets		
Non-current assets	42,809	38,328
Current assets	7,379	7,263
Current liabilities	(10,868)	(11,803)
Non-current liabilities	(21,372)	(15,889)
	17,948	17,899
Cash flows		
Net cash inflow from operating activities	3,561	2,414
Net cash outflow from investing activities	(2,741)	(2,699)
Net cash outflow from financing activities	(1,386)	(371)
Net decrease in cash and cash equivalents	(566)	(656)

Financial Risk Management

1. Financial Risk Factors

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, fair value and cash flow interest rate risks, and energy portfolio risk), credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise the impact of exchange rate, interest rate and energy price fluctuations on the Group's financial performance. The Group uses different derivative financial instruments to manage its exposure in these areas. All derivative financial instruments are employed solely for hedging purposes.

Risk management for Hong Kong operations is carried out by the Group's central treasury department (Group Treasury) under policies approved by the Board of Directors or the Finance & General Committee of relevant Group entities. Overseas subsidiaries conduct their risk management activities in accordance with policies approved by their respective Boards. Group Treasury identifies, evaluates and monitors financial risks in close co-operation with the Group's operating units. The Group has written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and cash management.

Foreign exchange risk

The Group operates in the Asia-Pacific region and is exposed to foreign exchange risk arising from future commercial transactions, and from recognised assets and liabilities and net investments in foreign operations. This is primarily with respect to Australian dollar and Renminbi. Additionally, the Group has significant foreign currency obligations relating to its foreign currency denominated debts and major capital project payments, US dollar denominated nuclear power purchase offtake commitments and other fuel related payments. The Group uses forward contracts and currency swaps to manage its foreign exchange risk arising from future commercial transactions, and from recognised assets and liabilities which are denominated in a currency that is not the functional currency of the respective Group entity. Hedging is only considered for firm commitments and highly probable forecast transactions.

SoC Companies

Under the SoC, the SoC Companies are allowed to pass-through foreign exchange gains and losses arising from future non-capital projects related commercial transactions and recognised liabilities which are denominated in a currency other than Hong Kong dollar, thus retaining no significant foreign exchange risk of such payments over the long term. The SoC Companies use forward contracts and currency swaps to hedge all their debt repayment obligations denominated in foreign currencies for the full tenor, and a significant portion of their US dollar obligations on fuel and nuclear power purchases, provided that for US dollar the hedging can be accomplished at rates below the Hong Kong Government's historical target peg rate of HK\$7.8: US\$1. The objective is to reduce the potential impact of foreign exchange movement on electricity tariffs. The SoC Companies also use forward contracts to manage the foreign exchange risks arising from non-Hong Kong dollar payment obligations for major capital projects, for which the exchange gains and losses are capitalised.

At the end of the reporting period, the fair value movement of the derivative financial instruments in a cash flow hedge relationship is recorded in equity. The extent of the impact to the cash flow hedge reserve under equity due to exchange rate movements, with all other variables held constant, is as follows:

	2022 HK\$M	2021 HK\$M
Increase / (decrease) in the cash flow hedge reserve		
Hong Kong dollar against US dollar		
If Hong Kong dollar weakened by 0.6% (2021: 0.6%)	107	111
If Hong Kong dollar strengthened by 0.6% (2021: 0.6%)	(107)	(111)
Hong Kong dollar against Euro		
If Hong Kong dollar weakened by 4% (2021: 2%)	23	22
If Hong Kong dollar strengthened by 4% (2021: 2%)	(23)	(22)

1. Financial Risk Factors (continued)

Foreign exchange risk (continued)

The Group's Asia-Pacific Investments

With respect to the power project investments in the Asia-Pacific region, the Group is exposed to both foreign currency translation and transaction risks.

The Group closely monitors translation risk using a Value-at-Risk (VaR) approach but does not hedge foreign currency translation risk because translation gains or losses do not affect the project company's cash flow or the Group's annual profit until an investment is sold. At 31 December 2022, the Group's net investment subject to translation exposure was HK\$52,619 million (2021: HK\$64,082 million), arising mainly from our investments in Mainland China, Australia, India and Southeast Asia and Taiwan. This means that, for each 1% (2021: 1%) average foreign currency movement, our translation exposure will vary by about HK\$526 million (2021: HK\$641 million). All the translation exposures are recognised in other comprehensive income and therefore have no impact on the profit or loss.

We consider that the non-functional currency transaction exposures at the individual project company level, if not managed properly, can lead to significant financial distress. Our primary risk mitigation is therefore to ensure that project-level debt financings are implemented on a local currency basis to the maximum extent possible. Each overseas subsidiary and project company has developed its own hedging programme into local currency taking into consideration any indexing provision in project agreements, tariff reset mechanisms, lender requirements, and tax and accounting implications.

Most foreign currency exposures of the Group entities are hedged and / or their transactions are predominantly conducted through the functional currency of the respective entity. The following analysis presents the Group's (apart from the SoC Companies) sensitivity to a reasonably possible change in the functional currencies of the Group entities against the US dollar and Renminbi, with all other variables held constant. The sensitivity rates in US dollar and Renminbi used are considered reasonable given the current level of exchange rates and the volatility observed in the different functional currencies of the Group entities. These are both on a historical basis and market expectations for future movement at the end of the reporting period and under the economic environments in which the Group operates. The extent of the impact to post-tax profit or equity due to exchange rate movements of US dollar and Renminbi against different functional currencies of Group entities, with all other variables held constant, is as follows:

	2022 HK\$M	2021 HK\$M
US dollar		
If US dollar strengthened by 7% (2021: 3%)		
Post-tax profit for the year	-	26
Equity – cash flow hedge reserve	20	21
If US dollar weakened by 7% (2021: 3%)		
Post-tax profit for the year	-	(26)
Equity – cash flow hedge reserve	(17)	(21)
Renminbi		
If Renminbi strengthened by 5% (2021: 2%)		
Post-tax profit for the year	18	5
Equity – cash flow hedge reserve	-	-
If Renminbi weakened by 5% (2021: 2%)		
Post-tax profit for the year	(18)	(5)
Equity – cash flow hedge reserve	-	-

1. Financial Risk Factors (continued)

Energy portfolio risk

EnergyAustralia's activity in energy markets exposes it to financial risk.

The electricity market is a competitive power pool. In this market generation supply and retail demand are exposed to spot (5-minute intervals) prices. EnergyAustralia purchases and sells majority of its electricity through the pool, at the same time EnergyAustralia enters into electricity spot-price-linked derivative financial instruments to manage the spot electricity price risk against forecast retail and generation exposures.

The gas market is a balancing market. To meet retail demand, EnergyAustralia procures gas supply agreements from various gas producers. The contract prices of certain agreements comprise a fixed component, and a variable component that is linked to oil spot prices on the global markets. EnergyAustralia enters into oil-price-linked derivative financial instruments to manage this oil price risk component.

Energy portfolio exposure is managed through an established risk management framework. The framework consists of policies which place appropriate limits on overall energy market exposures, hedging strategies and targets, delegations of authority on trading, approved product lists, regular exposure reporting, and segregation of duties. The corporate governance process also includes oversight by an Audit & Risk Committee (ARC-EA) which acts on behalf of EnergyAustralia's Board.

Risk monitoring includes physical position reporting, stress testing of the portfolios and "at-risk" analyses of potential earnings. At-risk measures are derived by modelling potential variability in spot and forward market prices and supply and demand volumes, across the wholesale energy portfolio, through Monte Carlo simulations, historic simulations, and scenarios. Overall Earnings-at-Risk (EaR) exposure for the coming financial year is reported as the 1 in 20 probability downside (2021: 1 in 4 probability downside) of the expected earnings distribution, as simulated with the above methods. The updated probability level better reflects recognisable scenarios. The energy portfolio risk exposure for EnergyAustralia as at 31 December 2022 was HK\$651 million (2021: HK\$441 million).

Interest rate risk

The Group's interest rate risk arises from borrowings. Borrowings issued at variable rates expose the Group to cash flow interest rate risk, and borrowings issued at fixed rates expose the Group to fair value interest rate risk. The risks are managed by monitoring an appropriate mix between fixed and floating rate borrowings, and by the use of interest rate swaps.

The appropriate level of the fixed / floating mix is determined for each operating company subject to a regular review. For instance, SoC Companies conducts an annual review to determine a preferred fixed / floating interest rate mix appropriate for its business profile. Each overseas subsidiary and project company has developed its own hedging programme taking into consideration project debt service sensitivities to interest rate movements, lender requirements, tax and accounting implications.

The sensitivity analysis below presents the effects on the Group's post-tax profit for the year (as a result of change in interest expense on floating rate borrowings) and equity (as a result of change in the fair value of derivative instruments which qualify as cash flow hedges). Such amounts accumulated in equity are reclassified to profit or loss in the periods when the hedged items affect profit or loss, and offset one another in the profit or loss.

1. Financial Risk Factors (continued)

Interest rate risk (continued)

The analysis has been determined based on the exposure to interest rates for both derivative and non-derivative financial instruments at the end of the reporting period. For floating rate borrowings, the analysis is prepared assuming the amount of liability outstanding at the end of the reporting period was outstanding for the whole year. The sensitivity to interest rates used is considered reasonable given the market forecasts available at the end of the reporting period and under the economic environments in which the Group operates, with all other variables held constant.

	2022 HK\$M	2021 HK\$M
Hong Kong dollar		
If interest rates were 0.5% (2021: 0.3%) higher		
Post-tax profit for the year	(65)	(29)
Equity – cash flow hedge reserve	12	10
If interest rates were 0.5% (2021: 0.3%) lower		
Post-tax profit for the year	65	29
Equity – cash flow hedge reserve	(12)	(10)
Australian dollar		
If interest rates were 1% (2021: 0.5%) higher		
Post-tax profit for the year	(30)	–
Equity – cash flow hedge reserve	–	–
If interest rates were 1% (2021: 0.5%) lower		
Post-tax profit for the year	30	–
Equity – cash flow hedge reserve	–	–
Renminbi		
If interest rates were 0.3% (2021: 0.3%) higher		
Post-tax profit for the year	(12)	(12)
Equity – cash flow hedge reserve	–	–
If interest rates were 0.3% (2021: 0.3%) lower		
Post-tax profit for the year	12	12
Equity – cash flow hedge reserve	–	–

1. Financial Risk Factors (continued)

Credit risk

The Group's approach to managing credit risk for trade receivables is discussed in Note 19.

On the treasury side, all finance-related hedging transactions and bank deposits of the Group entities are made with counterparties with good credit quality in conformance to the Group treasury policies to minimise credit exposure. Good credit ratings from reputable credit rating agencies and scrutiny of the financial position of non-rated counterparties are two important criteria in the selection of counterparties. The credit quality of counterparties will be closely monitored over the life of the transaction. The Group further assigns mark-to-market limits to its financial counterparties to reduce credit risk concentrations relative to the underlying size and credit strength of each counterparty. In an attempt to forestall adverse market movement, the Group also monitors potential exposures to each financial institution counterparty, using VaR methodology. All derivatives transactions are entered into at the sole credit of the respective subsidiaries, joint ventures and associates without recourse to the Company.

Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and making available an adequate amount of committed credit facilities with staggered maturities to reduce refinancing risk in any year and to fund working capital, debt servicing, dividend payments, new investments and close out market positions if required. The Group maintains significant flexibility to respond to opportunities and events by ensuring that committed credit lines are available to meet future funding requirements. In addition, CLP Power will fund its committed contractual maturities through cash flows earned under the terms of the SoC and financing available under its credit lines and MTN programme. Management also monitors rolling forecasts of the Group's undrawn borrowing facilities and cash and cash equivalents on the expected cash flows.

Cash flow forecasting at least for next 12 months of the Group is performed by Group Treasury. It monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational, financing and investing needs while maintaining sufficient headroom on its undrawn committed borrowing facilities at all times. Such forecasting takes into consideration the Group's debt financing plans, applicable financial ratios, covenant compliance, applicable external regulatory or legal requirements, and potential market impacts arising from unforeseeable events such as COVID-19 and currency restrictions.

1. Financial Risk Factors (continued)

Liquidity risk (continued)

The table below analyses the remaining contractual maturities at the end of the reporting period of the Group's non-derivative financial liabilities, derivative financial liabilities (both net settled and gross settled) and derivative financial assets (gross settled) based on the contractual undiscounted cash flows.

	Within 1 year HK\$M	Between 1 and 2 years HK\$M	Between 2 to 5 years HK\$M	Over 5 years HK\$M	Total HK\$M
At 31 December 2022					
Non-derivative financial liabilities					
Bank loans	9,365	6,275	6,811	4,518	26,969
Other borrowings	3,901	1,914	14,419	21,838	42,072
Customers' deposits	6,633	-	-	-	6,633
Trade payables and other liabilities	16,866	195	342	290	17,693
SoC reserve accounts	-	-	-	3,094	3,094
Asset decommissioning liabilities	-	-	-	1,463	1,463
	36,765	8,384	21,572	31,203	97,924
Derivative financial liabilities – net settled					
Interest rate swaps	27	21	42	-	90
Energy contracts	4,682	277	112	42	5,113
	4,709	298	154	42	5,203
Derivative financial liabilities – gross settled					
Gross contractual amounts payable					
Forward foreign exchange contracts	23,269	1,487	4,052	-	28,808
Cross currency interest rate swaps	3,562	1,827	6,009	17,778	29,176
	26,831	3,314	10,061	17,778	57,984
Gross contractual amounts receivable					
Forward foreign exchange contracts	(23,123)	(1,398)	(3,989)	-	(28,510)
Cross currency interest rate swaps	(3,073)	(1,499)	(5,512)	(17,627)	(27,711)
	(26,196)	(2,897)	(9,501)	(17,627)	(56,221)
Net payable	635	417	560	151	1,763
Derivative financial assets – gross settled					
Gross contractual amounts payable					
Forward foreign exchange contracts	3,569	199	61	-	3,829
Cross currency interest rate swaps	188	188	6,583	-	6,959
	3,757	387	6,644	-	10,788
Gross contractual amounts receivable					
Forward foreign exchange contracts	(3,585)	(205)	(62)	-	(3,852)
Cross currency interest rate swaps	(200)	(199)	(6,628)	-	(7,027)
	(3,785)	(404)	(6,690)	-	(10,879)
Net receivable	(28)	(17)	(46)	-	(91)
Total payable	607	400	514	151	1,672

1. Financial Risk Factors (continued)

Liquidity risk (continued)

	Within 1 year HK\$M	Between 1 and 2 years HK\$M	Between 2 to 5 years HK\$M	Over 5 years HK\$M	Total HK\$M
At 31 December 2021					
Non-derivative financial liabilities					
Bank loans	9,420	3,445	4,142	4,072	21,079
Other borrowings	2,732	4,295	8,954	30,451	46,432
Customers' deposits	6,254	-	-	-	6,254
Trade payables and other liabilities	15,279	251	420	428	16,378
SoC reserve accounts	-	-	-	3,440	3,440
Asset decommissioning liabilities	-	-	-	1,421	1,421
Financial guarantee contract	970	-	-	-	970
	<u>34,655</u>	<u>7,991</u>	<u>13,516</u>	<u>39,812</u>	<u>95,974</u>
Derivative financial liabilities – net settled					
Interest rate swaps	49	17	15	9	90
Energy contracts	878	192	110	244	1,424
	<u>927</u>	<u>209</u>	<u>125</u>	<u>253</u>	<u>1,514</u>
Derivative financial liabilities – gross settled					
Gross contractual amounts payable					
Forward foreign exchange contracts	2,661	704	4,334	-	7,699
Cross currency interest rate swaps	1,080	947	3,091	18,499	23,617
	<u>3,741</u>	<u>1,651</u>	<u>7,425</u>	<u>18,499</u>	<u>31,316</u>
Gross contractual amounts receivable					
Forward foreign exchange contracts	(2,587)	(661)	(4,266)	-	(7,514)
Cross currency interest rate swaps	(849)	(668)	(2,780)	(18,319)	(22,616)
	<u>(3,436)</u>	<u>(1,329)</u>	<u>(7,046)</u>	<u>(18,319)</u>	<u>(30,130)</u>
Net payable	<u>305</u>	<u>322</u>	<u>379</u>	<u>180</u>	<u>1,186</u>
Derivative financial assets – gross settled					
Gross contractual amounts payable					
Forward foreign exchange contracts	20,506	536	76	-	21,118
Cross currency interest rate swaps	294	2,625	3,042	6,591	12,552
	<u>20,800</u>	<u>3,161</u>	<u>3,118</u>	<u>6,591</u>	<u>33,670</u>
Gross contractual amounts receivable					
Forward foreign exchange contracts	(20,600)	(632)	(77)	-	(21,309)
Cross currency interest rate swaps	(371)	(2,677)	(3,102)	(6,623)	(12,773)
	<u>(20,971)</u>	<u>(3,309)</u>	<u>(3,179)</u>	<u>(6,623)</u>	<u>(34,082)</u>
Net receivable	<u>(171)</u>	<u>(148)</u>	<u>(61)</u>	<u>(32)</u>	<u>(412)</u>
Total payable	<u>134</u>	<u>174</u>	<u>318</u>	<u>148</u>	<u>774</u>

2. Hedge Accounting

The Group seeks to apply, wherever possible, hedge accounting to present its financial statements in accordance with the economic purpose of the hedging activity. The Group determines the economic relationship between the hedged items and the hedging instruments by reviewing their critical terms. As a result, the Group concludes that the risk being hedged for the hedged items and the risk inherent in the hedging instruments are sufficiently aligned. There is no inherent mismatch in the hedging relationships. Certain ineffectiveness can arise during the hedging process. The main sources of hedge ineffectiveness are considered to be the effects of re-designation of the hedging relationships and the counterparty credit risks on the hedging instruments.

Hedges on debt related transactions

The Group applies various types of derivative financial instruments (forward foreign currency contracts, foreign currency options, cross currency interest rate swaps and interest rate swaps) to mitigate exposures arising from the fluctuations in foreign currencies and / or interest rates of debt. In most of the cases, the hedging instruments have a one-to-one hedge ratio with the hedged items. In view of the nature of the hedging activities, no significant ineffectiveness is expected at inception.

Hedges on non-debt related transactions

The SoC Companies use forward contracts to manage its foreign exchange risk arising from fuel and nuclear purchases obligations, and payments for major capital projects. The SoC Companies hedge a high portion of committed and highly probable forecast transactions.

EnergyAustralia uses electricity spot-price-linked forward contracts and oil-price-linked forward contracts to mitigate exposures arising from the fluctuations in electricity spot price and oil spot price embedded in gas contracts. In most of the cases, the hedging instruments have a one-to-one hedge ratio with the hedged items.

2. Hedge Accounting (continued)

Effects of hedge accounting

The tables below summarise the effect of the hedge accounting on financial position and performance of the Group for the year ended 31 December 2022 and 2021:

	Notional amount of hedging instruments HK\$M	Carrying amount of hedging instrument assets / (liabilities) HK\$M	Favourable / (Unfavourable) changes in fair value used for measuring ineffectiveness		Fair value losses / (gains) recognised in cash flow hedge reserve HK\$M	Hedge ineffectiveness charged / (credited) to profit or loss ^(a) HK\$M	Amount reclassified from cash flow hedge reserve and credited / (charged) to profit or loss ^(a)	
			Hedging instruments HK\$M	Hedged items HK\$M			Hedged items affected profit or loss HK\$M	Hedged future cash flows no longer expected to occur HK\$M
Cash Flow Hedges								
At 31 December 2022								
Debt related transactions								
Interest rate risk ^(b)	25,623	(919)	(35)	25	32	3	(479)	-
Foreign exchange risk	-	-	27	(27)	(27)	-	26	-
Non-debt related transactions								
Foreign exchange risk	27,196	(204)	121	(121)	(121)	-	167	135
Energy portfolio risk - electricity ^(c)	N/A	2,700	3,550	(3,498)	(3,498)	(52)	386	1,500
Energy portfolio risk - gas ^(c)	N/A	(147)	1,206	(1,206)	(1,206)	-	1,261	-
At 31 December 2021								
Debt related transactions								
Interest rate risk ^(b)	28,085	(1,016)	(232)	227	231	1	(326)	-
Foreign exchange risk	346	(38)	8	(8)	(8)	-	10	-
Non-debt related transactions								
Foreign exchange risk	23,501	(13)	39	(39)	(39)	-	29	-
Energy portfolio risk - electricity ^(c)	N/A	1,153	989	(889)	(889)	(100)	1,050	34
Energy portfolio risk - gas ^(c)	N/A	789	1,546	(1,546)	(1,546)	-	134	-

	Notional amount of hedging instruments HK\$M	Carrying amount of hedged items HK\$M	Accumulated fair value hedge adjustments included in carrying amount of hedged items HK\$M	Favourable / (Unfavourable) changes in fair value used for measuring ineffectiveness		Hedge ineffectiveness charged to finance costs HK\$M
				Hedging instruments HK\$M	Hedged items HK\$M	
Fair Value Hedges						
At 31 December 2022						
Debt related transactions						
Interest rate risk ^(b)		6,388	(6,074)	424	(585)	14
At 31 December 2021						
Debt related transactions						
Interest rate risk ^(b)		5,509	(5,615)	(147)	(193)	-

Notes:

- Hedge ineffectiveness and amounts reclassified from cash flow hedge reserve on non-debt and debt related transactions were recognised in fuel and other operating expenses and finance costs respectively.
- Interest rate risk included foreign exchange risk in case of foreign currency debts.
- The aggregate notional volumes of the outstanding energy derivatives were 101,875GWh (2021: 108,041GWh) and 5.6 million barrels (2021: 5.9 million barrels) for electricity and oil, respectively.

2. Hedge Accounting (continued)

Effects of hedge accounting (continued)

An analysis of other comprehensive income by risk category and the reconciliation of the components in equity that arises in connection with hedge accounting are as follows:

	Interest Rate Risk ^(b) HK\$M	Foreign Exchange Risk HK\$M	Energy Portfolio Risk HK\$M	Total HK\$M
Cash Flow Hedge Reserve				
Balance at 1 January 2021	(414)	(15)	443	14
Fair value (losses)/gains	(231)	47	2,435	2,251
Reclassification to profit or loss				
Hedged items affect profit or loss	326	(39)	(1,184)	(897)
Hedged future cash flows no longer expected to occur	-	-	(34)	(34)
Transfer to hedged assets	-	8	-	8
Related deferred tax	(18)	(4)	(364)	(386)
Exchange difference	-	-	(46)	(46)
Balance at 31 December 2021	(337)	(3)	1,250	910
Balance at 1 January 2022	(337)	(3)	1,250	910
Fair value (losses)/gains	(32)	148	4,704	4,820
Reclassification to profit or loss				
Hedged items affect profit or loss	479	(193)	(1,647)	(1,361)
Hedged future cash flows no longer expected to occur	-	(135)	(1,500)	(1,635)
Transfer to hedged assets	-	78	-	78
Related deferred tax	(78)	19	(468)	(527)
Sale of subsidiaries (Note 4(a))	(33)	-	-	(33)
Exchange difference	-	-	(109)	(109)
Balance at 31 December 2022	(1)	(86)	2,230	2,143

	Time Value of Options HK\$M	Forward Element HK\$M	Foreign Currency Basis Spread HK\$M	Total HK\$M
Cost of Hedging Reserve				
Balance at 1 January 2021	1	3	92	96
Changes due to transaction related hedged items				
Fair value losses	-	-	(11)	(11)
Reclassification to profit or loss	-	-	26	26
Changes due to time-period related hedged items				
Fair value losses	(3)	(21)	(127)	(151)
Reclassification to profit or loss	2	19	(15)	6
Related deferred tax	-	-	21	21
Balance at 31 December 2021	-	1	(14)	(13)
Balance at 1 January 2022	-	1	(14)	(13)
Changes due to transaction related hedged items				
Fair value losses	-	-	(58)	(58)
Reclassification to profit or loss	-	-	11	11
Changes due to time-period related hedged items				
Fair value losses	(1)	(11)	(196)	(208)
Reclassification to profit or loss	-	9	40	49
Related deferred tax	1	1	33	35
Balance at 31 December 2022	-	-	(184)	(184)

3. Fair Value Estimation and Hierarchy of Financial Instruments

The fair value of financial instruments traded in active markets (such as publicly traded derivatives) is based on quoted market prices at the end of the reporting period.

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using appropriate valuation techniques and making assumptions that are based on market conditions existing at the end of each reporting period.

For the Group's financial instruments that are not measured at fair value, their carrying values approximate their fair values.

Financial instruments measured at fair value are analysed into the following fair value measurement hierarchy:

Level 1 – quoted prices (unadjusted) in active markets for identical assets or liabilities

Level 2 – inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices)

Level 3 – inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs)

(A) Fair value hierarchy

The following table presents the Group's financial instruments that are measured at fair value at 31 December:

	Level 1 HK\$M	Level 2 HK\$M	Level 3 HK\$M	Total HK\$M
At 31 December 2022				
Financial assets				
Investments at fair value through other comprehensive income	265	–	35	300
Investments at fair value through profit or loss	2	–	676	678
Forward foreign exchange contracts	–	23	–	23
Cross currency interest rate swaps	–	39	–	39
Interest rate swaps	–	59	–	59
Energy contracts	252	1,596	2,081	3,929
	519	1,717	2,792	5,028
Financial liabilities				
Forward foreign exchange contracts	–	290	–	290
Cross currency interest rate swaps	–	1,388	–	1,388
Interest rate swaps	–	80	–	80
Energy contracts	3,702	1,155	100	4,957
	3,702	2,913	100	6,715
At 31 December 2021				
Financial assets				
Investments at fair value through other comprehensive income	338	–	35	373
Investments at fair value through profit or loss	12	–	530	542
Forward foreign exchange contracts	–	156	–	156
Foreign exchange options	–	1	–	1
Cross currency interest rate swaps	–	180	–	180
Interest rate swaps	–	19	–	19
Energy contracts	329	1,457	1,340	3,126
	679	1,813	1,905	4,397
Financial liabilities				
Forward foreign exchange contracts	–	187	–	187
Cross currency interest rate swaps	–	1,046	–	1,046
Interest rate swaps	–	87	–	87
Energy contracts	580	273	493	1,346
	580	1,593	493	2,666

3. Fair Value Estimation and Hierarchy of Financial Instruments (continued)

(A) Fair value hierarchy (continued)

The Group's policy is to recognise transfers into / out of fair value hierarchy levels at the date of the event or change in circumstances that caused the transfer. During 2022 and 2021, there were no transfers between Level 1 and Level 2.

(B) Valuation techniques used to determine fair values

The valuation techniques and inputs used in the fair value measurements within Level 2 and Level 3 are as follows:

Financial Instruments	Valuation Techniques	Significant Inputs
Investments at fair value through profit or loss	Recent arm's length transactions or net asset value of funds	Not applicable
Forward foreign exchange contracts	Discounted cash flow	Observable exchange rates
Foreign exchange options	Garman Kohlhagen Model	Observable exchange rates, interest rates and volatility levels
Cross currency interest rate swaps	Discounted cash flow	Observable exchange rates and swap rates of respective currency
Interest rate swaps	Discounted cash flow	Observable swap rates of respective currency
Energy contracts	Discounted cash flow	Brokers' quotes and observable exchange traded swap and cap price curves; and long term forward electricity price and cap price curves

The significant unobservable inputs of energy contracts used for fair value measurement included long term forward electricity price and cap price curve. The finance department of EnergyAustralia includes a team that performs the valuations of non-property assets required for financial reporting purposes, including Level 3 fair values. This team reports directly to EnergyAustralia's Chief Financial Officer (CFO-EA) and ARC-EA. The valuation of Level 3 forward energy contracts involves the use of a short term forward curve which is observable in the liquid market and an internally generated long term forward electricity price and cap price curve which is derived using unobservable inputs. This short term forward curve is reviewed at least once every six months, in line with the Group's half-yearly reporting dates. Review of the long term forward curve is performed by the CFO-EA and ARC-EA annually due to the lack of market liquidity. Analysis of fair value changes is performed on a monthly basis for reasonableness.

(C) Movements and sensitivity analysis of Level 3 financial instruments

	2022			2021		
	Investments HK\$M	Energy Contracts HK\$M	Total HK\$M	Investments HK\$M	Energy Contracts HK\$M	Total HK\$M
Opening balance	565	847	1,412	326	392	718
Total (losses)/gains recognised in						
Profit or loss and presented in fuel and other operating expenses (note)	(13)	292	279	164	119	283
Other comprehensive income	(8)	2,265	2,257	-	444	444
Purchases	167	-	167	128	-	128
Sales/settlements	-	(1,423)	(1,423)	(53)	(108)	(161)
Closing balance	711	1,981	2,692	565	847	1,412

Note: Out of which, unrealised gains recognised in profit or loss relating to the assets and liabilities held at the end of the reporting period was HK\$171 million (2021: HK\$282 million).

The valuation of long tenure energy contracts is sensitive to electricity pool price assumptions. Electricity forward prices have fluctuated significantly during the year and in excess of historical movements. Additional sensitivities (30% higher or lower) to the balance of the energy contracts at 31 December 2022, with all other variables held constant, are disclosed as follows:

3. Fair Value Estimation and Hierarchy of Financial Instruments (continued)

(C) Movements and sensitivity analysis of Level 3 financial instruments (continued)

	2022 HK\$M	2021 HK\$M
Balance of Level 3 energy contracts would increase if		
Electricity prices were 15% higher (2021: 15%)	836	681
Electricity prices were 30% higher	1,688	N/A
Balance of Level 3 energy contracts would decrease if		
Electricity prices were 15% lower (2021: 15%)	(844)	(724)
Electricity prices were 30% lower	(1,677)	N/A

4. Offsetting Financial Assets and Financial Liabilities

The following financial assets and liabilities are subject to offsetting, enforceable master netting arrangements or similar agreements:

	Effect of offsetting in the consolidated statement of financial position			Related amounts not offset in the consolidated statement of financial position		Net amount ^(a) HK\$M
	Gross amounts recognised HK\$M	Gross amounts offset HK\$M	Net amounts presented in the respective line HK\$M	Financial instruments HK\$M	Financial instrument collateral HK\$M	
At 31 December 2022						
Financial assets						
Trade receivables	4,763	-	4,763	(2,117)	(2,567)	79
Derivative financial instruments	4,937	(914)	4,023	(83) ^(b)	-	3,940
	<u>9,700</u>	<u>(914)</u>	<u>8,786</u>	<u>(2,200)</u>	<u>(2,567)</u>	<u>4,019</u>
Financial liabilities						
Customers' deposits	6,551	-	6,551	(2,567)	-	3,984
Bank loans and other borrowings	5,085	-	5,085	-	(2,117)	2,968
Derivative financial instruments	7,540	(914)	6,626	(83) ^(b)	-	6,543
	<u>19,176</u>	<u>(914)</u>	<u>18,262</u>	<u>(2,650)</u>	<u>(2,117)</u>	<u>13,495</u>
At 31 December 2021						
Financial assets						
Bank balances, cash and other liquid funds	299	-	299	(299)	-	-
Trade receivables and service concession receivables	6,791	-	6,791	(4,647)	(2,104)	40
Derivative financial instruments	3,766	(403)	3,363	(156) ^(b)	-	3,207
	<u>10,856</u>	<u>(403)</u>	<u>10,453</u>	<u>(5,102)</u>	<u>(2,104)</u>	<u>3,247</u>
Financial liabilities						
Customers' deposits	6,251	-	6,251	(2,104)	-	4,147
Bank loans and other borrowings	11,514	-	11,514	-	(4,946)	6,568
Derivative financial instruments	2,961	(403)	2,558	(156) ^(b)	-	2,402
	<u>20,726</u>	<u>(403)</u>	<u>20,323</u>	<u>(2,260)</u>	<u>(4,946)</u>	<u>13,117</u>

4. Offsetting Financial Assets and Financial Liabilities (continued)

Notes:

- (a) Under HKFRS, amounts cannot be offset if the rights of set-off are conditional on a future event e.g. default of payment. "Net amount" column represents the net impact that would be shown on the consolidated statement of financial position if all set-off rights (e.g. master netting arrangements, collateral arrangements, etc.) were exercised. At 31 December 2022, these items include (1) trade receivables related to Hong Kong electricity business where customers' deposits are served as security for payments; (2) trade receivables of subsidiaries in Mainland China which are pledged against their bank loans and other borrowings; and (3) bank loans and other borrowings of subsidiaries in Mainland China which are secured by charges over certain financial assets or rights to income.
- (b) For derivative financial instruments, the Group enters into derivative transactions under International Swaps and Derivatives Association (ISDA) master agreements in which there is a set-off provision. Under certain circumstances, for example, when a credit event such as a default occurs, all outstanding transactions under the agreement are terminated, a termination value is then assessed and only a single net amount is payable in settlement of all transactions. The ISDA agreements do not meet the criteria for offsetting in the consolidated statement of financial position since the Group does not have any currently legally enforceable right to offset recognised amounts. The right to offset is enforceable only on the occurrence of future events such as a default on the bank transactions or other credit events.

5. Capital Management

The primary objective of the Group's capital management is to safeguard the Group's ability to continue as a going concern, maintain a strong credit rating and a healthy capital ratio to support the business and to enhance shareholder value.

The Group manages its capital structure and fine-tunes it in light of changes in economic conditions and business strategies. To maintain or adjust the capital structure, the Group may adjust the dividend payments to shareholders, issue new shares or change the level of debts. The Group's capital management objectives, policies or processes were unchanged during 2022 and 2021.

The Group monitors capital using "total debt to total capital" and "net debt to total capital" ratios. These ratios are as follows:

	2022 HK\$M	2021 HK\$M
Total debt ^(a)	59,217	58,215
Net debt ^(b)	54,931	49,955
Total equity ^(c)	116,554	127,541
Total capital (based on total debt) ^(d)	175,771	185,756
Total capital (based on net debt) ^(e)	171,485	177,496
Total debt to total capital (based on total debt) ratio (%)	33.7	31.3
Net debt to total capital (based on net debt) ratio (%)	32.0	28.1

Increase in the net debt to total capital was driven by increased net debt to finance EnergyAustralia's cash flow requirements and reduced capital from the loss attributable to EnergyAustralia in 2022.

Certain entities of the Group are subject to loan covenants. For both 2022 and 2021, there is no material non-compliance with those loan covenants.

Notes:

- (a) Total debt equals bank loans and other borrowings.
- (b) Net debt equals total debt less bank balances, cash and other liquid funds.
- (c) Total equity equals equity plus advances from non-controlling interests.
- (d) Total capital (based on total debt) equals total debt plus total equity.
- (e) Total capital (based on net debt) equals net debt plus total equity.

Scheme of Control Statement

CLP Power Hong Kong Limited and Castle Peak Power Company Limited

Overview

In Hong Kong, CLP Power Hong Kong Limited (CLP Power) operates a vertically integrated electricity generation, transmission and distribution business. The generating plants in Hong Kong are owned by Castle Peak Power Company Limited (CAPCO), in which CLP Power owned 70%. CLP Power builds and operates CAPCO's power stations under contract and is the sole customer for CAPCO's electricity which CLP Power transmits and distributes to its customers in Kowloon, New Territories and most of the outlying islands. CLP Power owns the transmission and distribution network.

Since financial year 1964, the electricity-related operations of CLP Power and CAPCO (the SoC Companies) have been governed by a Scheme of Control (SoC) Agreement with the Hong Kong Government. The SoC specifies the SoC Companies' obligations to supply adequate and reliable electricity supplies to customers at the lowest reasonable cost and the mechanism for the Hong Kong Government to monitor their financial affairs and operating performance. In return, CLP Power is allowed to charge tariffs designed to recover the operating costs (including tax) and allowed net return of the SoC Companies.

The current SoC took effect from 1 October 2018 and covers a term of over 15 years ending on 31 December 2033. The SoC contains a provision to give the SoC Companies protection for stranded costs, which may arise as a result of future changes to the market structure which adversely impact on the SoC Companies' ability to recover and to earn returns on existing investments made in good faith in accordance with the SoC. These costs will include the costs of investments, fuel and power purchase agreements previously approved by the Hong Kong Government. If stranded costs arise after the SoC Companies have implemented mitigation measures reasonably required by the Hong Kong Government, the SoC Companies are entitled to recover them from the market, consistent with international practice. Three years before market changes are introduced, the SoC Companies and the Hong Kong Government will agree on the amount of stranded costs and the mechanism for their recovery by the SoC Companies.

Tariff Setting Mechanism

For each year, CLP Power designs the total tariff it charges to cover the SoC Companies' operating costs and allowed net return. The total tariff consists of the following components:

- (i) basic tariff rate which is derived by taking into account the annual forecast of (a), (b) and (c) below, using the formula $(a-b)/c$:
 - (a) the allowed net return and operating costs including the standard cost of fuels; generation, transmission, distribution and administration expenses; depreciation; interest expenses; and taxes;
 - (b) 80% of the profit on electricity sales to Mainland China; and
 - (c) local unit sales as determined by the load forecast.
- (ii) fuel clause charge or rebate (Fuel Cost Adjustment) which represents the difference between the cost of fuels (including natural gas, coal and oil) and the standard cost recovered through the basic tariff rate. The Fuel Cost Adjustment may be adjusted from time to time, including on a monthly basis, to reflect changes in the cost of fuels consumed by the SoC Companies for the generation of electricity.

Any difference between the actual profit for SoC operations and the permitted return for the year is transferred to or from a Tariff Stabilisation Fund. The Tariff Stabilisation Fund does not form part of distributable shareholders' funds and represents a liability in the accounts of CLP Power. A charge on the average balance of the Tariff Stabilisation Fund is credited to a Rate Reduction Reserve in the accounts of CLP Power, which balance as at the end of each year is to be transferred to the Tariff Stabilisation Fund in the following year.

Permitted and Net Return

The permitted and net return that the SoC Companies are allowed under the SoC are calculated as follows:

- > The annual permitted return under the SoC is 8% of the SoC Companies' average net fixed assets.
- > The net return under the SoC is the permitted return after the deduction or adjustment of the following items:
 - (a) interest up to a maximum of 7% per annum on borrowed capital arranged for financing fixed assets;
 - (b) a charge of the average one-month Hong Kong Interbank Offered Rate on the average balance of the Tariff Stabilisation Fund under the SoC, which is credited to the Rate Reduction Reserve;
 - (c) an excess capacity adjustment of 8% less an allowed interest charge up to 7% per annum on the average related excess capacity expenditure;
 - (d) interest up to 7% per annum on the increase in average balance of the customers' deposits in excess of the balance as at 30 September 1998; and
 - (e) performance-linked incentives / penalties adjustments

Category	% incentives (+) / penalties (-)
Operation performance related incentives / penalties	in the range of -0.05% to +0.05% on average net fixed assets
Energy efficiency and renewable performance incentives	<ul style="list-style-type: none"> > a maximum of 0.315% on average net fixed assets > incentive of 10% of renewable energy certificates sales revenue > five-year energy saving and renewable energy connections incentives with a maximum of 0.11% on the average net fixed assets at the final year of the five-year period
Demand response reduction incentive	a maximum of 0.025% on average net fixed assets

The net return is divided between the SoC Companies in accordance with the provisions of the agreements between the SoC Companies. These provisions state that each company will receive that proportion of the total net return represented by the net return that company would receive if it were the only company under the SoC and the net return were calculated solely on the basis of its own financial statements.

Under the SoC, 65% of the energy efficiency incentives earned by the SoC Companies are to be contributed to a CLP Community Energy Saving Fund (CESF) to support programmes in promotion of energy efficiency, use of renewable energy, the disadvantaged groups and other programmes as agreed with the Hong Kong Government.

The calculations shown on next page are in accordance with the SoC and the agreements between the SoC Companies.

For the year ended 31 December

	2022 HK\$M	2021 HK\$M
SoC revenue	51,103	45,379
Expenses		
Operating costs	5,027	5,186
Fuel	21,939	15,667
Purchases of nuclear electricity	5,822	5,678
Provision for asset decommissioning	73	111
Depreciation	5,313	5,434
Operating interest	800	857
Taxation	1,924	2,100
	40,898	35,033
Profit after taxation	10,205	10,346
Interest on increase in customers' deposits	4	-
Interest on borrowed capital	1,115	1,018
Adjustment for performance incentives	(448)	(438)
Profit for SoC	10,876	10,926
Transfer to Tariff Stabilisation Fund	(531)	(1,072)
Permitted return	10,345	9,854
Deduct interest on / Adjustment for		
Increase in customers' deposits as above	4	-
Borrowed capital as above	1,115	1,018
Performance incentives as above	(448)	(438)
Tariff Stabilisation Fund to Rate Reduction Reserve	40	3
	711	583
Net return	9,634	9,271
CESF contribution	(218)	(208)
Net return after CESF contribution	9,416	9,063
Divisible as follows:		
CLP Power	6,239	6,078
CAPCO	3,177	2,985
	9,416	9,063
CLP Power's share of net return after CESF contribution		
CLP Power	6,239	6,078
Interest in CAPCO	2,224	2,089
	8,463	8,167

Five-year Summary: CLP Group Economic and Financial Data

	2022	2021	2020	2019	2018
Consolidated Operating Results, HK\$M					
Revenue					
Hong Kong electricity business	50,600	44,311	41,325	40,025	40,872
Energy businesses outside Hong Kong	48,873	38,941	37,687	45,088	49,793
Others	1,189	707	578	576	760
Total	100,662	83,959	79,590	85,689	91,425
Earnings					
Hong Kong energy business ¹	8,403	8,141	7,773	7,418	8,575
Hong Kong energy business related	263	301	270	211	227
Mainland China	2,229	1,660	2,233	2,277	2,163
Australia	(5,267)	(83)	1,690	1,566	3,302
India	193	221	175	263	572
Southeast Asia and Taiwan	11	173	386	335	162
Other earnings in Hong Kong ¹	(65)	(18)	(193)	(169)	(109)
Unallocated net finance (costs)/income	(6)	(9)	24	(42)	(54)
Unallocated Group expenses	(1,138)	(869)	(781)	(738)	(856)
Operating earnings	4,623	9,517	11,577	11,121	13,982
Property revaluation	(57)	(34)	(121)	(83)	18
Profit from sale of properties	80	-	-	-	-
(Losses)/gains on sales of investments	(3,722)	249	-	-	-
Impairment provision	-	(148)	-	(6,381)	(450)
Other items affecting comparability from Australia	-	(1,093)	-	-	-
Total earnings	924	8,491	11,456	4,657	13,550
Dividends	7,832	7,832	7,832	7,782	7,630
Depreciation and amortisation, owned and leased assets	8,904	9,308	8,476	8,118	8,005
Consolidated Statement of Financial Position, HK\$M					
SoC fixed assets	130,842	124,353	119,873	117,042	113,295
Other fixed assets	24,916	37,801	36,642	33,744	34,650
Goodwill and other intangible assets	18,451	19,710	20,559	20,111	26,910
Interests in and loans to joint ventures	11,748	10,602	11,017	9,999	9,674
Interests in associates	9,090	8,769	9,181	8,708	7,746
Other non-current assets	6,518	4,686	3,568	3,193	2,739
Current assets	34,461	33,888	33,393	28,826	35,500
Total assets	236,026	239,809	234,233	221,623	230,514
Shareholders' funds	105,498	113,034	112,200	105,455	109,053
Perpetual capital securities	3,887	3,887	3,887	3,887	5,791
Other non-controlling interests	6,309	9,788	9,885	9,987	10,088
Equity	115,694	126,709	125,972	119,329	124,932
Bank loans and other borrowings	59,217	58,215	54,348	52,349	55,298
SoC reserve accounts	3,094	3,440	2,374	1,500	998
Other current liabilities	33,147	27,286	27,260	26,911	28,099
Other non-current liabilities	24,874	24,159	24,279	21,534	21,187
Total liabilities	120,332	113,100	108,261	102,294	105,582
Equity and total liabilities	236,026	239,809	234,233	221,623	230,514



	2022	2021	2020	2019	2018
Consolidated Statement of Cash Flows, HK\$M					
Funds from operations	13,555	20,223	24,418	23,502	26,584
Net cash inflow from operating activities	12,734	17,806	22,374	21,345	23,951
Net cash outflow from investing activities	(15,382)	(11,787)	(10,081)	(5,824)	(11,259)
Net cash outflow from financing activities	(987)	(8,484)	(10,211)	(14,944)	(11,505)
Capital expenditure, owned and leased assets	(14,553)	(12,431)	(10,586)	(10,448)	(10,327)
Per Share Data, HK\$					
Shareholders' funds per share	41.76	44.74	44.41	41.74	43.16
Earnings per share					
Total earnings	0.37	3.36	4.53	1.84	5.36
Operating earnings	1.83	3.77	4.58	4.40	5.53
Dividends per share	3.10	3.10	3.10	3.08	3.02
Closing share price					
Highest	80.35	80.90	84.20	96.85	96.95
Lowest	51.80	71.75	65.00	78.40	75.35
As at year-end	56.95	78.75	71.70	81.90	88.50
Ratios					
Return on equity, %	0.8	7.5	10.5	4.3	12.4
Operating return on equity, %	4.2	8.5	10.6	10.4	12.8
Total debt to total capital, %	33.7	31.3	30.0	30.3	30.4
Net debt to total capital, %	32.0	28.1	25.1	26.7	25.5
FFO interest cover, times	7	12	13	12	13
Price/Earnings, times	154	23	16	45	17
Dividend yield, %	5.4	3.9	4.3	3.8	3.4
Dividend cover ² , times	0.6	1.2	1.5	1.4	1.8
Dividend pay-out, %					
Total earnings	847.6	92.2	68.4	167.1	56.3
Operating earnings	169.4	82.3	67.7	70.0	54.6
Total return to shareholders ³ , %	2.6	5.8	5.2	8.7	9.6
Group Generation Capacity⁴					
(owned / operated / under construction), MW					
– by region					
Hong Kong	8,268	8,243	8,143	7,568	7,543
Mainland China	5,944	7,985	7,905	7,905	7,869
Australia	4,853	4,537	4,511	4,508	4,478
India	1,700	2,040	1,890	1,842	1,796
Southeast Asia and Taiwan	285	285	285	285	285
	21,050	23,090	22,734	22,108	21,971
– by status					
Operational	19,874	22,235	22,184	21,468	21,127
Construction	1,176	855	550	640	844
	21,050	23,090	22,734	22,108	21,971

Notes:

- 1 Reflecting our business initiatives in energy and infrastructure solutions in Hong Kong, the 2018-2021 earnings of CLPe have been reclassified from other earnings in Hong Kong to Hong Kong energy business to align with current year presentation.
- 2 Dividend cover = Operating earnings per share / Dividend per share
- 3 Total return to shareholders represents the 10-year annualised rate of return from the combination of share price appreciation and dividend payments.
- 4 Group generation capacity (in MW) is incorporated on the following basis: CAPCO on 100% capacity as stations operated by CLP Power Hong Kong and other stations on the proportion of the Group's equity interests.

Five-year Summary: CLP Group Environmental, Social and Governance (ESG) Data

Environmental

Performance Indicators	Units	2022	2021	2020	2019	2018	GRI Standards (GRI)/ HKEx ESG Reporting Guide (HKEx)/SASB Standards for Electric Utilities (SASB)/ ISSB's Climate-related Disclosures (ISSB)
Greenhouse Gas Emissions							
CLP Group¹							
Total CO ₂ e emissions – on an equity basis ^{2,3}	kt	60,223	65,017	62,138	71,720	N/A	GRI 305-1, 305-2, 305-3/ HKEx A1.2/SASB IF-EU-110a.1, IF-EU-110a.2/ISSB 21-a
Scope 1 CO ₂ e ⁴	kt	44,141	47,690	45,105	50,047	N/A	
Scope 2 CO ₂ e	kt	220	236	244	250	N/A	
Scope 3 CO ₂ e	kt	15,861	17,091	16,790	21,424	N/A	
CLP Group's generation and energy storage portfolio^{3,4,5}							
CO ₂ – on an equity basis ⁶	kt	44,019	47,574	44,987	N/A	N/A	GRI 305-1, 305-2/HKEx A1.2
CO ₂ e – on an equity basis ⁶	kt	44,235	47,813	N/A	N/A	N/A	
CO ₂ – on an equity plus long-term capacity and energy purchase basis ^{7,8}	kt	48,074	51,674	48,621	N/A	N/A	
CO ₂ e – on an equity plus long-term capacity and energy purchase basis ^{7,8}	kt	48,323	51,941	N/A	N/A	N/A	
CO ₂ – on an operational control basis ⁶	kt	44,338	46,842	43,808	50,412	52,052	
CO ₂ e – on an operational control basis ⁶	kt	44,571	47,090	44,023	50,676	52,306	
Climate Vision 2050							
CLP Group – GHG emissions intensity of generation and energy storage portfolio^{3,4,5,10}							
On an equity plus long-term capacity and energy purchase basis ^{7,8}	kg CO ₂ e/kWh	0.55	0.57	0.57	0.63	0.66	GRI 305-4/HKEx A1.2/ISSB 21-a
On an equity basis ⁶	kg CO ₂ e/kWh	0.63	0.65	0.66	0.71	0.74	
Resource Use & Emissions^{11,12}							
Nitrogen oxides (NO _x) emissions	kt	43.5	45.7	43.2	47.0	60.9	GRI 305-7/HKEx A1.1/ SASB IF-EU-120.a.1
Sulphur dioxide (SO ₂) emissions	kt	48.9	52.7	48.0	44.7	76.1	
Particulates emissions	kt	6.8	7.6	6.9	7.7	8.5	
Sulphur hexafluoride (SF ₆)	kt	0.003	0.004	0.003	N/A	N/A	
Non-hazardous waste produced ¹³	t (solid)/kl (liquid)	12,702/23	24,481/65	17,901/3	13,344/59	11,471/52	GRI 306-2/HKEx A1.4
Non-hazardous waste recycled ¹³	t (solid)/kl (liquid)	7,917/23	4,214/65	4,458/3	4,986/57	3,990/52	
Hazardous waste produced ¹³	t (solid)/kl (liquid)	869/1,103	1,524/1,017	1,503/1,091	862/1,578	1,435/1,685	GRI 306-2/HKEx A1.3
Hazardous waste recycled ¹³	t (solid)/kl (liquid)	493/797	520/947	523/1,069	201/1,536	631/1,648	
Ash produced/recycled and sold	kt	3,088/2,365	3,403/2,501	2,624/1,793	3,032/3,667	3,419/2,263	SASB IF-EU-150a.1
Gypsum produced/recycled and sold	kt	286/280	367/365	334/335	441/438	253/250	
Total water withdrawal ²	Mm ³	5,339.3	5,243.7 ¹⁴	5,466.0 ¹⁴	5,475.4 ¹⁴	5,154.2 ¹⁵	GRI 2-4, 303-3/HKEx A2.2/ SASB IF-EU-140a.1 GRI 2-4, 303-4
Total water discharge ²	Mm ³	5,310.9	5,205.4 ¹⁶	5,438.6 ¹⁶	5,433.2 ¹⁶	5,103.2	
Fuel Use							
Coal consumed (for power generation)	TJ	394,274	426,190	403,379	485,453	521,568	GRI 302-1/HKEx A2.1
Gas consumed (for power generation)	TJ	151,327	142,304	134,776	107,183	83,364	
Oil consumed (for power generation)	TJ	2,936	2,717	2,243	2,620	3,807	
Environmental Compliance							
Environmental regulatory non-compliances resulting in fines or prosecutions ¹¹	number	0	0	0	0	0	GRI 2-27
Environmental licence limit exceedances & other non-compliances ¹¹	number	6 ¹⁷	5 ¹⁸	4	10	2	

Notes:

- Refers to a range of businesses, including generation and energy storage portfolio, transmission and distribution, retail and others.
- Numbers are subject to rounding. Any discrepancies between the total shown and the sum of the amounts listed are due to rounding.
- Paguthan Power Station, the power purchase agreements of which expired in December 2018, was not included in the 2019-2022 numbers.
- In accordance with the Greenhouse Gas Protocol, WE Station, which makes use of landfill gas from waste for power generation, is not included in CLP's Scope 1 CO₂ emissions and is reported separately in the Asset Performance Statistics of the Sustainability Report. Its non-CO₂ GHG emissions (i.e. CH₄ and N₂O) are included in CLP's Scope 1 CO₂e emissions.
- Starting from 2020, the portfolio includes energy storage assets and generation assets. Energy storage assets include pumped storage and battery storage. In previous years, the portfolio included generation assets only.
- Numbers include Scope 1 and Scope 2 emissions.
- Numbers include assets with majority and minority shareholdings, and those under "long-term capacity and energy purchase" arrangements with CLP. Starting from 2018, "long-term capacity and energy purchase" has been defined as a purchase agreement with a duration of at least five years, and capacity or energy purchased being no less than 10MW.
- Numbers include Scope 1, Scope 2 and Scope 3 Category 3 emissions (direct emissions from generation of purchased electricity that is sold to CLP's customers).
- CO₂e emissions of Yallourn and Hallett Power Stations were used to calculate CO₂ emissions metrics in 2017 due to limited data availability.
- The 2019-2022 numbers refer to the GHG emissions intensity (kg CO₂e/kWh), in line with the updated Climate Vision 2050 targets. Numbers prior to 2019 refer to carbon emissions intensity (kg CO₂/kWh), as reported in the past.
- Numbers include operating assets where CLP has operational control during the calendar year. Paguthan Power Station, the power purchase agreements of which expired in December 2018, was not included in the 2019-2022 number.
- Since 2019, numbers at the asset level have been aggregated and then rounded.
- Waste categorised in accordance with local regulations.
- Restated as per updated data for Newport Power Station in Australia and Jhajjar Power Station in India.

Performance Indicators	Units	2022	2021	2020	2019	2018	
Asset management ^{2,19}							
Total generation and energy storage capacity by asset type - on an equity basis	MW (%)	17,970 (100)	20,018 (100)	19,691 (100)	19,238 (100)	19,108 (100)	GRI 2-4/ISSB 20
Coal	MW (%)	8,486 (47.2)	10,795 (53.9)	10,765 (54.7)	10,765 (56.0)	10,765 (56.3)	
Gas	MW (%)	4,934 (27.5)	4,666 (23.3)	4,600 (23.4)	4,194 (21.8)	4,147 (21.7)	
Nuclear	MW (%)	1,600 (8.9)	1,600 (8.0)	1,600 (8.1)	1,600 (8.3)	1,600 (8.4)	
Wind ²⁰	MW (%)	1,680 (9.3)	1,747 (8.7)	1,521 (7.7)	1,521 (7.9)	1,521 (8.0)	
Hydro ²⁰	MW (%)	489 (2.7)	489 (2.4)	489 (2.5)	489 (2.5)	489 (2.6)	
Solar ²⁰	MW (%)	554 (3.1)	499 (2.5)	499 (2.5)	451 (2.3)	369 (1.9)	
Waste-to-energy ²⁰	MW (%)	7 (0.0)	7 (0.0)	7 (0.0)	7 (0.0)	7 (0.0)	
Energy Storage	MW (%)	10 (0.1)	5 (0.0)	0 (0.0)	N/A	N/A	
Others	MW (%)	210 (1.2)	210 (1.0)	210 (1.1)	210 (1.1)	210 (1.1)	
Total generation and energy storage capacity by asset type - on an equity plus long-term capacity and energy purchase basis⁷	MW (%)	23,068 (100)	25,108 (100)	24,752 (100) ²¹	24,015 (100)	23,705 (100)	
Coal	MW (%)	9,719 (42.1)	12,027 (47.9)	11,997 (48.5)	11,997 (50.0)	11,997 (50.6)	
Gas	MW (%)	6,089 (26.4)	5,813 (23.2)	5,717 (23.1)	5,139 (21.4)	5,084 (21.4)	
Nuclear	MW (%)	2,685 (11.6)	2,685 (10.7)	2,685 (10.8)	2,685 (11.2)	2,685 (11.3)	
Wind ²²	MW (%)	2,264 (9.8)	2,331 (9.3)	2,105 (8.5) ²¹	2,049 (8.5)	1,982 (8.4)	
Hydro ²²	MW (%)	489 (2.1)	489 (1.9)	489 (2.0)	489 (2.0)	489 (2.1)	
Solar ²²	MW (%)	848 (3.7)	793 (3.2)	793 (3.2)	745 (3.1)	558 (2.4)	
Waste-to-energy ²²	MW (%)	10 (0.0)	10 (0.0)	10 (0.0)	10 (0.0)	10 (0.0)	
Energy Storage	MW (%)	665 (2.9)	660 (2.6)	655 (2.6)	N/A	N/A	
Others	MW (%)	300 (1.3)	300 (1.2)	300 (1.2)	900 (3.7)	900 (3.8)	
Total energy sent out by asset type³ - on an equity basis	GWh (%)	69,726 (100)	73,113 (100)	68,699 (100)	70,949 (100)	N/A	GRI 2-4/SASB IF-EU-000.D/ISSB 20
Coal	GWh (%)	37,031 (53.1)	42,002 (57.4)	39,438 (57.4)	44,596 (62.9)	N/A	
Gas	GWh (%)	14,435 (20.7)	13,233 (18.1)	12,390 (18.0)	9,979 (14.1)	N/A	
Nuclear	GWh (%)	12,346 (17.7)	12,302 (16.8)	11,192 (16.3)	10,888 (15.3)	N/A	
Wind ²³	GWh (%)	3,146 (4.5)	2,959 (4.0)	2,886 (4.2)	2,924 (4.1)	N/A	
Hydro ²³	GWh (%)	1,835 (2.6)	1,668 (2.3)	1,879 (2.7)	1,758 (2.5)	N/A	
Solar ²³	GWh (%)	901 (1.3)	922 (1.3)	898 (1.3)	805 (1.1)	N/A	
Waste-to-energy ²³	GWh (%)	29 (0.0)	27 (0.0)	15 (0.0)	0 (0.0)	N/A	
Energy Storage	GWh (%)	0 (0.0)	0 (0.0)	0 (0.0)	N/A	N/A	
Others	GWh (%)	1 (0.0)	0 (0.0)	1 (0.0)	0 (0.0)	N/A	
Total energy sent out by asset type^{3,24} - on an equity plus long-term capacity and energy purchase basis⁷	GWh (%)	87,360 (100)	91,183 (100)	85,949 (100) ²¹	88,573 (100)	(100)	
Coal	GWh (%)	39,027 (44.7)	43,995 (48.2)	41,118 (47.8)	48,512 (54.8)	(60)	
Gas	GWh (%)	19,507 (22.3)	18,461 (20.2)	17,157 (20.0)	13,073 (14.8)	(12)	
Nuclear	GWh (%)	20,836 (23.9)	20,962 (23.0)	19,923 (23.2)	19,400 (21.9)	(20)	
Wind ²⁵	GWh (%)	4,709 (5.4)	4,611 (5.1)	4,445 (5.2) ²¹	4,474 (5.0)	(8)	
Hydro ²⁵	GWh (%)	1,835 (2.1)	1,668 (1.8)	1,879 (2.2)	1,758 (2.0)	(8)	
Solar ²⁵	GWh (%)	1,472 (1.7)	1,524 (1.7)	1,522 (1.8)	1,467 (1.7)	(8)	
Waste-to-energy ²⁵	GWh (%)	42 (0.0)	38 (0.0)	22 (0.0)	0 (0.0)	N/A	
Energy Storage	GWh (%)	-69 (-0.1)	-75 (-0.1)	-118 (-0.1)	N/A	N/A	
Others	GWh (%)	2 (0.0)	1 (0.0)	1 (0.0)	-109 (-0.1)	(0)	

Notes:

- 15 Restated as per updated data for Jhajjar Power Station in India.
- 16 Restated as per updated data for Newport Power Station in Australia.
- 17 The number excludes eight cases of short-term licence limit exceedances from Jhajjar. Details please refer to the section Environmental Management and Compliance – Initiatives and Progress in Sustainability Report 2022.
- 18 The number was restated to align the calculation methodology across years.
- 19 Starting from 2020, a new "Energy Storage" asset category is added, under which pumped storage and battery storage are included. In previous years, assets under the "Others" category included oil-fired generation assets and pumped storage.
- 20 Renewables include wind, hydro, solar and waste-to-energy. The total capacity of renewables on an equity basis is 2,731MW (15.2%) in 2022.
- 21 Restated as per updated data for Power Purchase Agreement (PPA) of Waterloo Wind Farm in Australia.
- 22 Renewables include wind, hydro, solar and waste-to-energy. The total capacity of renewables on an equity plus long-term capacity and energy purchase basis is 3,611MW (15.7%) in 2022.
- 23 Renewables include wind, hydro, solar and waste-to-energy. The total sent out of renewables on an equity basis is 5,911GWh (8.5%) in 2022.
- 24 Only percentages are available for the year 2018.
- 25 Renewables include wind, hydro, solar and waste-to-energy. The total sent out of renewables on an equity plus long-term capacity and energy purchase basis is 8,058GWh (9.2%) in 2022.

All 2022 data in the above table have been independently verified by PricewaterhouseCoopers **except** those numbers which are shaded in dark grey.

For more detailed narrative on the “Environmental, Social and Governance” related performance indicators, please refer to Stakeholders chapters and the Corporate Governance Report of this Annual Report.

Social and Governance

Performance Indicators	Units	2022	2021	2020	2019	2018	GRI/HKEx/SASB/ISSB
Employees¹							
Employees by region							GRI 2-7/HKEx B1.1
Hong Kong	number	4,954	4,771	4,689	4,604	4,543	
Mainland China	number	663	627	609	607	596	
Australia	number	2,251	2,281	2,320	2,280	2,246	
India	number	450	437	442	469	458	
Total	number	8,318	8,116	8,060	7,960	7,843	
Employees eligible to retire within the next five years²							
Hong Kong	%	18.8	20.1	20.4	19.5	20.0	GRI EU15
Mainland China	%	15.7	15.1	13.4	14.5	13.2	
Australia ³	%	6.7	6.6	5.7	5.4	12.8	
India	%	5.5	5.0	5.1	4.8	4.0	
Total	%	14.1	14.6	14.5	13.9	16.4	
Voluntary staff turnover rate^{4,5}							
Hong Kong	%	6.6	4.6	3.1	2.4	2.3	GRI 401-1/HKEx B1.2
Mainland China	%	2.3	2.3	1.3	2.0	4.7	
Australia	%	18.8	16.1	7.7	12.9	13.6	
India	%	10.6	6.9	4.7	6.6	5.6	
Average training hours per employee	hours	46.2	51.6	42.5	40.1	46.1	
Safety⁶							
Fatalities – employees only ^{7,8}	number of personnel	0	0	0	0	1	GRI 403-2/HKEx B2.1
Fatalities – contractors only ^{7,8}	number of personnel	0	0	0	1	1	
Fatalities – employees and contractors combined ^{7,8}	number of personnel	0	0	0	1	2	
Fatality Rate – employees only ^{9,10}	rate	0.00	0.00	0.00	0.00	0.01	GRI 403-2/HKEx B2.1/ SASB IF-EU-320a.1
Fatality Rate – contractors only ^{9,10}	rate	0.00	0.00	0.00	0.01	0.01	
Fatality Rate – employees and contractors combined ^{9,10}	rate	0.00	0.00	0.00	0.00	0.01	
Days Away From Work Injuries – employees only ^{8,11}	number of personnel	6	4	12	7	11	GRI 403-2
Days Away From Work Injuries – contractors only ^{8,11}	number of personnel	15	10	10	19	11	
Days Away From Work Injuries – employees and contractors combined ^{8,11}	number of personnel	21	14	22	26	22	
Lost Time Injury Rate – employees only ^{10,12}	rate	0.07	0.05	0.13	0.07	0.13	
Lost Time Injury Rate – contractors only ^{10,12}	rate	0.11	0.08	0.09	0.14	0.09	
Lost Time Injury Rate – employees and contractors combined ^{10,12}	rate	0.10	0.07	0.11	0.11	0.10	

Notes:

- Starting from 2019, numbers have included full-time and part-time employees. Numbers in 2018 included full-time employees only.
- The percentages given refer to permanent employees within each region, who are eligible to retire within the next five years.
- There is no mandatory retirement age in Australia. Since 2019, the retirement age assumption has been adjusted from 60 to 65 to reflect local norms, which led to a significantly lower percentage compared to previous years. Numbers in previous years adopting the adjusted retirement age for Australia are as follows:
2018 – Australia: 4.6%/Group total: 14.0%.
- Voluntary staff turnover refers to employees leaving the organisation voluntarily and does not include dismissal, retirement, company-initiated termination or end of contract.
- Includes permanent employees except for Mainland China, which includes both permanent and fixed-term contract employees due to local employment legislation.
- The system of rules applied in recording and reporting accident statistics complies with the International Labour Organization (ILO) Code of Practice on Recording and Notification of Occupational Accidents and Diseases.
- Refers to the number of fatalities as a result of work-related injury.
- Starting from 2021, the unit is changed from the number of cases to the number of personnel.
- Refers to the number of fatal injuries per 200,000 work hours in the year.
- Rates are normalised to 200,000 work hours, which approximately equals to the number of hours worked by 100 people in one year.
- Starting from 2021, “Days Away From Work Injuries” replaces “Lost Time Injury”. Days Away From Work Injuries refers to the number of personnel who sustains work-related injury and is unfit to perform any work on any day after the occurrence of the injury. “Any day” is any calendar day which includes rest days, weekend days, leave days, public holidays or days after ceasing employment. It does not include the day the injury incident occurred. “Days Away From Work Injuries” excludes fatalities which were included in “Lost Time Injury”. Numbers prior to 2021 are the previously reported numbers for “Lost Time Injury”.
- Refers to the number of Days Away From Work Injuries and Fatalities per 200,000 work hours in the year.

Performance Indicators	Units	2022	2021	2020	2019	2018	GRI/HKEx/SASB/ISSB
High-consequence Injuries – employees only ¹³	number of personnel	0	0	N/A	N/A	N/A	GRI 403-9
High-consequence Injuries – contractors only ¹³	number of personnel	2	1	N/A	N/A	N/A	
High-consequence Injuries – employees and contractors combined ¹³	number of personnel	2	1	N/A	N/A	N/A	
Total Recordable Injury Rate – employees only ^{10,14}	rate	0.17	0.14	0.25	0.19	0.19	GRI 403-2/SASB IF-EU-320a.1
Total Recordable Injury Rate – contractors only ^{10,14}	rate	0.31	0.29	0.37	0.52	0.29	
Total Recordable Injury Rate – employees and contractors combined ^{10,14}	rate	0.25	0.23	0.32	0.38	0.25	
Work-related Ill Health – employees only ^{8,15}	number of personnel	4	1	0	0	1	GRI 403-10/HKEx B2.1
Lost Days – employees only ¹⁶	number of days	176	304 ¹⁷	443 ¹⁸	464 ¹⁹	249	GRI 403-2/HKEx B2.2
Governance							
Convicted cases of corruption reported to the Audit & Risk Committee	cases	0	0	0	0	0	GRI 205-3/HKEx B7.1
Breaches of Code of Conduct reported to the Audit & Risk Committee	cases	10	18	25	31	20	

Notes:

- 13 Refers to the number of personnel who sustains life-threatening or life-altering work-related injury. It is a subset of Days Away From Work Injuries.
- 14 Refers to the number of Total Recordable Injuries per 200,000 work hours in the year. Total Recordable Injuries include Fatalities, Days Away From Work Injuries, Restricted Work Injuries, and Medical Treatment Injuries.
- 15 Starting from 2021, "Work-related Ill Health" replaces "Occupational Disease". Work-related Ill Health includes the diseases listed in the ILO List of Occupational Diseases, work-related mental illnesses and work-related disorders. Numbers prior to 2021 are the previously reported numbers for "Occupational Disease".
- 16 Starting from 2021, "Lost Days" replaces "Days Lost". "Lost Days" is the sum total of calendar days (consecutive or otherwise) after the days on which the work-related injuries and work-related ill health occurred. "Days Lost" accounts the working days instead of calendar days. Numbers prior to 2021 are the previously reported numbers for "Days Lost".
- 17 19 out of 304 days were carried forward from one incident in 2020.
- 18 188 out of 443 days were carried forward from one incident in the past.
- 19 158 out of 464 days were carried forward from three incidents in the past.

All 2022 data in the above table have been independently verified by PricewaterhouseCoopers **except** those numbers which are shaded in dark grey.

Five-year Summary: Scheme of Control Financial & Operating Statistics

CLP Power Hong Kong Limited and Castle Peak Power Company Limited

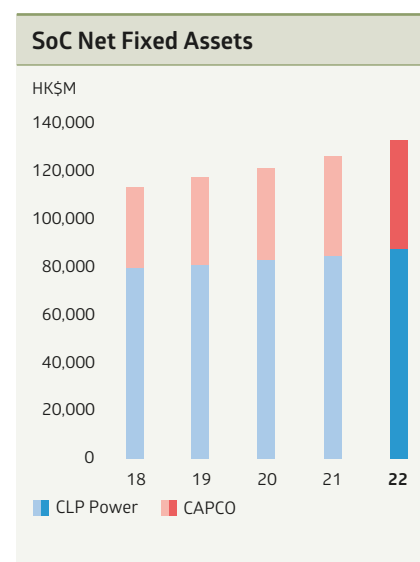
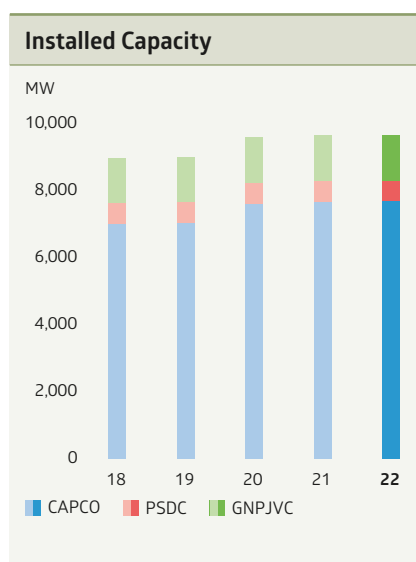
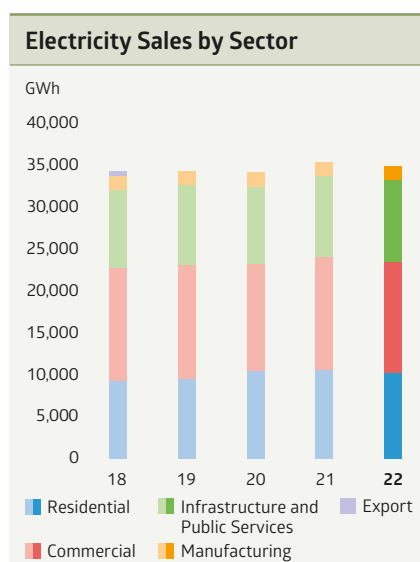
	2022	2021	2020	2019	2018
SoC Financial Statistics					
Combined Profit & Loss Statement, HK\$M					
Profit for SoC	10,876	10,926	10,026	9,744	10,756
Transfer to Tariff Stabilisation Fund	(531)	(1,072)	(519)	(526)	(191)
Permitted return	10,345	9,854	9,507	9,218	10,565
Deduct interest on / Adjustment for					
Borrowed capital	1,115	1,018	1,111	1,100	1,055
Increase in customers' deposits	4	-	-	4	1
Performance incentives	(448)	(438)	(416)	(392)	(105)
Tariff Stabilisation Fund	40	3	18	22	11
Net return	9,634	9,271	8,794	8,484	9,603
Combined Balance Sheet, HK\$M					
Net assets employed					
Fixed assets	132,792	125,827	120,523	117,157	113,295
Non-current assets	74	134	351	213	198
Current assets	9,681	8,359	6,350	4,231	6,559
	142,547	134,320	127,224	121,601	120,052
Less: current liabilities	27,881	25,311	23,046	28,115	24,699
Net assets	114,666	109,009	104,178	93,486	95,353
Exchange fluctuation account	465	606	555	9	81
	115,131	109,615	104,733	93,495	95,434
Represented by					
Equity	52,528	49,934	47,807	46,205	46,569
Long-term loans and other borrowings	40,680	38,328	37,146	29,792	32,274
Deferred liabilities	18,995	18,244	17,761	16,020	15,650
Tariff Stabilisation Fund	2,928	3,109	2,019	1,478	941
	115,131	109,615	104,733	93,495	95,434
Other SoC Information, HK\$M					
Total electricity sales	50,919	45,222	41,798	40,473	40,982
Capital expenditure	12,573	11,222	8,882	9,097	8,922
Depreciation	5,313	5,434	5,011	4,753	4,931
SoC Operating Statistics					
Customers and Sales					
Number of customers (thousand)	2,752	2,711	2,672	2,636	2,597
Sales analysis, millions of kWh					
Commercial	13,233	13,423	12,878	13,584	13,425
Manufacturing	1,615	1,665	1,616	1,663	1,704
Residential	10,113	10,525	10,298	9,451	9,191
Infrastructure and Public Services	9,863	9,742	9,171	9,586	9,342
Local	34,824	35,355	33,963	34,284	33,662
Export	-	-	-	-	556
Total Electricity Sales	34,824	35,355	33,963	34,284	34,218
Annual change, %	(1.5)	4.1	(0.9)	0.2	(0.8)
Renewable Energy Certificate Sold, millions of kWh	100	15	5	3	-
Local consumption, kWh per person	5,680	5,704	5,404	5,459	5,433
Local sales, HK¢ per kWh (average) ¹					
Basic Tariff	93.3	93.6	92.3	90.7	93.3
Fuel Cost Adjustment ²	46.1	30.2	28.4	27.9	23.2
Special Rebate	(2.1)	-	-	-	-
Total Tariff	137.3	123.8	120.7	118.6	116.5
Rent and Rates Special Rebate ³	(1.3)	-	(1.2)	(0.1)	(1.1)
Net Tariff	136.0	123.8	119.5	118.5	115.4
Annual change in Basic Tariff, %	(0.3)	1.4	1.8	(2.8)	1.6
Annual change in Total Tariff, %	10.9	2.6	1.8	1.8	3.3
Annual change in Net Tariff, %	9.9	3.6	0.8	2.7	2.3



	2022	2021	2020	2019	2018
Generation (Including Affiliated Generating Companies)					
Installed capacity, MW ⁴	9,648	9,623	9,573	8,988	8,963
System maximum demand					
Local, MW ⁵	7,720	7,477	7,264	7,206	7,036
Annual change, %	3.2	2.9	0.8	2.4	(1.7)
System load factor, %	56.0	58.8	57.3	59.8	58.8
Generation by CAPCO stations, millions of kWh	24,828	25,330	23,752	24,952	24,642
Sent out, millions of kWh –					
From own generation	23,602	24,109	22,605	23,369	23,032
Net transfer from GNPS/GSPS/Others	12,289	12,484	12,583	12,276	12,504
From Feed-in Tariff customers	199	111	45	9	–
Total	36,090	36,704	35,233	35,654	35,536
Fuel consumed, terajoules –					
Oil	1,875	1,928	1,538	1,711	2,714
Coal	77,172	75,307	63,505	141,830	150,310
Gas	128,453	132,609	131,244	80,695	72,969
Total	207,500	209,844	196,287	224,236	225,993
Cost of fuel, HK\$ per gigajoule – Overall	99.18	70.25	65.94	55.47	54.79
Thermal efficiency, % based on units sent out	40.9	41.3	40.8	37.5	36.7
Plant availability, %	89.1	84.4	87.5	86.4	86.4
Transmission and Distribution					
Network, circuit kilometres					
400kV	555	555	555	555	554
132kV	1,651	1,638	1,638	1,630	1,601
33kV	22	22	22	22	22
11kV	14,450	14,182	13,990	13,782	13,643
Transformers, MVA	68,343	67,479	66,633	65,753	65,109
Substations –					
Primary	240	237	235	232	232
Secondary	15,413	15,204	15,028	14,867	14,685
Employees and Productivity					
Number of SoC employees	4,012	3,900	3,861	3,815	3,798
Productivity, thousands of kWh per employee	8,803	9,111	8,849	9,007	8,825

Notes:

- Figures are rounded to one decimal place. Minor discrepancies may result from rounding.
- The Fuel Cost Adjustment has replaced the Fuel Clause Charge effective from October 2014. Commencing 1 October 2018, the Fuel Cost Adjustment is automatically adjusted on a monthly basis to reflect changes in actual price of fuel used.
- CLP Power provided customers with a Rent and Rates Special Rebate of 1.1 cents per unit from January 2018 to mid-February 2019, 1.2 cents per unit in 2020 and 1.3 cents per unit in 2022, returning to customers the refunds received from the Government in relation to CLP Power's claims against the Government's overcharged rent and rates.
- Unit A1 of Castle Peak Power Station, with capacity of 350MW, was put in reserve to run only in emergency situation, after coming to the end of its asset life on 31 May 2022. The installed capacity without A1 would otherwise be 9,298MW.
- Without taking into account the effect of the customer programme of demand response pursued to reduce electricity usage, the maximum demand would have been higher at 7,269MW in 2019, 7,369MW in 2020, 7,551MW in 2021 and 7,858MW in 2022.



Our Portfolio

CLP's business spans every major segment of the energy value chain, including retail, transmission, distribution and a diversified portfolio of electricity generation assets. The tables below detail the total generation and energy storage capacity¹ as well as business activities in each CLP market as of 31 December 2022.

Hong Kong	Mainland China	Australia	India	Southeast Asia and Taiwan	Total
8,268MW	7,029MW	5,786MW	1,700MW	285MW	23,068MW

Hong Kong				
Assets and Services	Location	CLP's Equity Interest	Gross Capacity	CLP's Capacity (Equity / Long-term Purchase)
Customer Services				
Electricity and customer services for about 2.75 million customer accounts in Kowloon, the New Territories and most of Hong Kong's outlying islands	Hong Kong	100%	-	-
Transmission and Distribution				
555 km of 400kV lines, 1,651 km of 132kV lines, 22 km of 33kV lines and 14,450 km of 11kV lines 68,343 MVA transformers, 240 primary and 15,413 secondary substations in operation	Hong Kong	100%	-	-
Gas				
Black Point Power Station , one of the world's largest gas-fired combined-cycle power stations comprising of one 550MW unit and eight 337.5MW units. A new 600MW unit is under construction	Hong Kong	70%	3,850MW	3,850MW
Coal				
Castle Peak Power Station , comprising three 350MW coal-fired units and four 677MW units. One other 350MW unit ² is available for emergency use	Hong Kong	70%	4,108MW	4,108MW
Others				
Hong Kong Branch Line , comprising of a 20 km pipeline (including subsea portion of 19 km) and the associated gas launching and end stations, which transports natural gas from PipeChina's Second West-East Gas Pipeline in Shenzhen Dachan Island to Black Point Power Station	Hong Kong	40%	-	-
Hong Kong LNG Terminal Limited develops, owns and operates the offshore LNG terminal in Hong Kong, currently under construction, to provide LNG regasification and related services to Castle Peak Power Company Limited and The Hongkong Electric Company, Limited	Hong Kong	49%	-	-
Penny's Bay Power Station , comprising three 100MW diesel-fired gas turbine units mainly for backup purposes	Hong Kong	70%	300MW	300MW
West New Territories Landfill Gas Power Generation Project , comprising of five 2MW units which make use of landfill gas from waste for power generation	Hong Kong	70%	10MW	10MW

Mainland China				
Assets and Services	Location	CLP's Equity Interest	Gross Capacity	CLP's Capacity (Equity / Long-term Purchase)
Nuclear				
Guangdong Daya Bay Nuclear Power Station , comprising two 984MW Pressurised Water Reactors. Through long-term capacity purchase, 70% of electricity generated is supplied to Hong Kong, with the remaining 30% sold to Guangdong Province ³	Guangdong	25%	1,968MW	1,577MW
Yangjiang Nuclear Power Station , comprising six 1,086MW generating units	Guangdong	17%	6,516MW	1,108MW
Wind				
Nanao II Wind Farm	Guangdong	25%	45MW	11MW
Nanao III Wind Farm	Guangdong	25%	15MW	4MW
Sandu Wind Farm	Guizhou	100%	99MW	99MW
Changling II Wind Farm	Jilin	45%	49.5MW	22MW
Datong Wind Farm	Jilin	49%	49.5MW	24MW
Qian'an I Wind Farm	Jilin	100%	49.5MW	49.5MW
Qian'an II Wind Farm	Jilin	100%	49.5MW	49.5MW
Qian'an III Wind Farm⁴	Jilin	100%	100MW	100MW
Shuangliao I Wind Farm	Jilin	49%	49.3MW	24MW
Shuangliao II Wind Farm	Jilin	49%	49.5MW	24MW
CLP Laizhou I Wind Farm	Shandong	100%	49.5MW	49.5MW
CLP Laizhou II Wind Farm	Shandong	100%	49.5MW	49.5MW
Dongying Hekou Wind Farm	Shandong	49%	49.5MW	24MW
Huadian Laizhou I Wind Farm	Shandong	45%	40.5MW	18MW
Laiwu I Wind Farm	Shandong	100%	49.5MW	49.5MW
Laiwu II Wind Farm	Shandong	100%	49.5MW	49.5MW
Laiwu III Wind Farm	Shandong	100%	50MW	50MW

Notes:

- Of projects in operation and under construction on an equity basis, in addition to long-term capacity and energy purchase arrangements. Minor discrepancies may result from rounding.
- Unit A1 of Castle Peak Power Station, with capacity of 350MW, was put in reserve to run only in emergency situation, after coming to the end of its asset life on 31 May 2022.
- Agreements have been reached to increase the proportion of energy supply to Hong Kong to slightly above 70% in 2014 and to about 80% from 2015 to 2023, with the remainder continuing to be sold to Guangdong Province.
- The Qian'an III project commenced commercial operation in March 2022.

Mainland China (Cont'd)

Assets and Services	Location	CLP's Equity Interest	Gross Capacity	CLP's Capacity (Equity / Long-term Purchase)
Lijin I Wind Farm	Shandong	49%	49.5MW	24MW
Lijin II Wind Farm	Shandong	49%	49.5MW	24MW
Penglai I Wind Farm	Shandong	100%	48MW	48MW
Rongcheng I Wind Farm	Shandong	49%	48.8MW	24MW
Rongcheng II Wind Farm	Shandong	49%	49.5MW	24MW
Rongcheng III Wind Farm	Shandong	49%	49.5MW	24MW
Weihai I Wind Farm	Shandong	45%	19.5MW	9MW
Weihai II Wind Farm	Shandong	45%	49.5MW	22MW
Zhanhua I Wind Farm	Shandong	49%	49.5MW	24MW
Zhanhua II Wind Farm	Shandong	49%	49.5MW	24MW
Chongming Wind Farm	Shanghai	29%	48MW	14MW
Xundian I Wind Farm	Yunnan	100%	49.5MW	49.5MW
Xundian II Wind Farm ⁵	Yunnan	100%	50MW	50MW
Hydro				
Huaiji Hydro Power Stations	Guangdong	84.9%	129MW	110MW
Jiangbian Hydropower Station	Sichuan	100%	330MW	330MW
Dali Yang'er Hydropower Station	Yunnan	100%	49.8MW	49.8MW
Solar⁶				
Jinchang Solar Power Station	Gansu	100%	85MW	85MW
Meizhou Solar Power Station	Guangdong	100%	36.1MW	36.1MW
Huai'an Solar Power Station	Jiangsu	100%	12.8MW	12.8MW
Sihong Solar Power Station	Jiangsu	100%	93.4MW	93.4MW
Yangzhou Gongdao Solar Power Station ⁷	Jiangsu	100%	80MW	80MW
Lingyuan Solar Power Station	Liaoning	100%	17MW	17MW ¹
Xicun I Solar Power Station	Yunnan	100%	42MW	42MW ¹
Xicun II Solar Power Station	Yunnan	100%	42MW	42MW
Coal				
Beijing Yire Power Station ⁸	Beijing	30%	-	-
Sanhe I and II Power Stations	Hebei	16.5%	1,330MW	219MW
Zhungeer II and III Power Stations	Inner Mongolia	19.5%	1,320MW	257MW
Suizhong I and II Power Stations	Liaoning	15%	3,760MW	564MW
Shenmu Power Station ⁹	Shaanxi	49%	-	-
Heze II Power Station	Shandong	29.4%	600MW	176MW
Liaocheng I Power Station	Shandong	29.4%	1,200MW	353MW
Panshan Power Station	Tianjin	19.5%	1,060MW	207MW
Energy Storage				
Rights to use 50% of Phase I of Guangzhou Pumped Storage Power Station for serving CLP's Hong Kong business under a long-term capacity purchase agreement	Guangdong	-	1,200MW	600MW
Battery energy storage system co-located with Qian'an III Wind Farm	Jilin	100%	5MW	5MW
Battery energy storage system co-located with Xundian II Wind Farm	Yunnan	100%	5MW	5MW
Others				
Fangchenggang Incremental Distribution Network ¹⁰	Guangxi	22.05%	-	-
Po Park Centralised Cooling System ¹¹	Guangdong	-	-	-

5 Construction of Xundian II Wind Farm commenced in July 2022.

6 Gross/CLP Equity MW of solar power projects are expressed on an alternating current (AC) basis unless specified otherwise.

7 Preparation work for construction of Yangzhou Gongdao Power Station commenced in December 2022. The greenfield project was acquired by CLP in 2022 with registered capacity of 80MW.

8 Beijing Yire Power Station ceased operation on 20 March 2015.

9 Shenmu Power Station ceased operation on 28 February 2018.

10 The project company, of which TUS-CLP Smart Energy Technology Co. Ltd. is a shareholder, builds and operates an incremental distribution network (IDN) at Fangchenggang Hi-Tech Zone.

11 In 2021, CLP signed a contract to invest in and operate a centralised cooling system at Po Park Shopping Plaza in central Guangzhou until 2036.

Australia				
Assets and Services	Location	CLP's Interest (Equity / Long-term Purchase)	Gross Capacity	CLP's Capacity (Equity / Long-term Purchase)
Customer Services				
Electricity and gas services for 2.46 million customer accounts	New South Wales, Queensland, South Australia and Victoria	100%	-	-
Wind				
Cathedral Rocks Wind Farm	South Australia	50%	64MW	32MW
Gas				
Tallawarra Gas-fired Power Station ¹² , including the Tallawarra B plant under construction	New South Wales	100%	736MW	736MW
Hallett Gas-fired Power Station	South Australia	100%	235MW	235MW
Jeeralang Gas-fired Power Station	Victoria	100%	440MW	440MW
Newport Gas-fired Power Station	Victoria	100%	500MW	500MW
Coal				
Mount Piper Coal-fired Power Station	New South Wales	100%	1,430MW ¹³	1,430MW ¹³
Yallourn Coal-fired Power Station and Brown Coal Open-cut Mine	Victoria	100%	1,480MW	1,480MW
Renewable Energy Long-term Purchase¹⁴				
Boco Rock Wind Farm	New South Wales	100%	113MW	113MW
Bodangora Wind Farm	New South Wales	60%	113MW	68MW
Coleambally Solar Farm	New South Wales	70%	150MW	105MW
Gullen Range Wind Farm	New South Wales	100%	166MW	166MW
Manildra Solar Farm	New South Wales	100%	46MW	46MW
Taralga Wind Farm	New South Wales	100%	107MW	107MW
Ross River Solar Farm	Queensland	80%	116MW	93MW
Waterloo Wind Farm Stage 1	South Australia	100%	111MW	111MW
Gannawarra Solar Farm	Victoria	100%	50MW	50MW
Mortons Lane Wind Farm	Victoria	100%	20MW	20MW
Energy Storage				
Rights to charge and dispatch energy from Ballarat Battery Storage which operates 24 / 7 and is capable of powering more than 20,000 homes for an hour of critical peak demand before being recharged	Victoria	100%	30MW / 30MWh	30MW / 30MWh
Rights to charge and dispatch energy from Gannawarra Battery Storage which is capable of powering more than 16,000 homes through two hours of peak demand before being recharged	Victoria	100%	25MW / 50MWh	25MW / 50MWh
Others				
Pine Dale Black Coal Mine	New South Wales	100%	-	-

India ¹⁵				
Assets and Services	Location	CLP's Equity Interest	Gross Capacity	CLP's Equity Capacity
Wind				
Mahidad Wind Farm	Gujarat	50%	50.4MW	25.2MW
Samana I Wind Farm	Gujarat	50%	50.4MW	25.2MW
Samana II Wind Farm	Gujarat	50%	50.4MW	25.2MW
Sidhpur Wind Farm ¹⁶	Gujarat	50%	251MW	125.4MW
Harapanahalli Wind Farm	Karnataka	50%	39.6MW	19.8MW
Saundatti Wind Farm	Karnataka	50%	72MW	36MW
Chandgarh Wind Farm	Madhya Pradesh	50%	92MW	46MW
Andhra Lake Wind Farm	Maharashtra	50%	106.4MW	53.2MW
Jath Wind Farm	Maharashtra	50%	60MW	30MW
Khandke Wind Farm	Maharashtra	50%	50.4MW	25.2MW
Bhakrani Wind Farm	Rajasthan	50%	102.4MW	51.2MW
Sipla Wind Farm	Rajasthan	50%	50.4MW	25.2MW
Tejuva Wind Farm	Rajasthan	50%	100.8MW	50.4MW
Theni I Wind Farm	Tamil Nadu	50%	49.5MW	24.8MW
Theni II Wind Farm	Tamil Nadu	50%	49.5MW	24.8MW

12 Construction of the Tallawarra B plant, with capacity of 316MW, commenced in 2022 and is expected to be completed in time for the 2023 / 24 Australian summer.

13 Gross capacity at Mount Piper Power Station increased to 1,430MW in early 2021.

14 Relates to long-term power purchase from wind and solar farms in which CLP has neither equity nor operational control.

15 CLP completed the divestment of an additional 10% equity in Apraava Energy in December 2022. Following the transaction, CLP and CDPQ each have 50% ownership of Apraava Energy.

16 Sidhpur Wind Project is expected to be commissioned by June 2023.

India ¹⁵ (Cont'd)				
Assets and Services	Location	CLP's Equity Interest	Gross Capacity	CLP's Equity Capacity
Solar⁶				
Gale Solar Farm	Maharashtra	50%	50MW	25MW
Tornado Solar Farm	Maharashtra	50%	20MW	10MW
Cleansolar Renewable Energy Private Limited	Telangana	50%	30MW	15MW
Divine Solren Private Limited	Telangana	50%	50MW	25MW
Veltoor Solar Farm	Telangana	50%	100MW	50MW
Gas				
Paguthan Power Station ¹⁷ , a combined-cycle gas-fired power plant designed to run on natural gas with naphtha as alternate fuel	Gujarat	50%	655MW	327.5MW
Coal				
Jhajar Power Station, comprising two 660MW supercritical coal-fired units	Haryana	50%	1,320MW	660MW
Transmission				
Satpura Transco Private Ltd., which runs a 240 km 400kV double circuit intra-state transmission line	Madhya Pradesh	50%	-	-
Kohima-Mariani Transmission Ltd. ¹⁸ , which runs a 254 km 400kV double circuit interstate transmission line in Northeast India, and owns a 400/220kV gas insulated switchgear substation at Kohima in the state of Nagaland	Assam, Nagaland and Manipur	24.5%	-	-

Southeast Asia & Taiwan				
Assets and Services	Location	CLP's Equity Interest	Gross Capacity	CLP's Equity Capacity
Solar⁶				
Lopburi Solar Farm	Thailand	33.3%	63MW	21MW
Coal				
Ho-Ping Power Station	Taiwan	20%	1,320MW	264MW

Figures include rounding adjustments.

17 Paguthan Power Station did not undertake any significant commercial generation in 2022.

18 Apraava Energy acquired a 49% interest in Kohima-Mariani Transmission Ltd. in December 2021.

Glossary

Term	Definition
Air emissions	The emission of air pollutants such as sulphur dioxide (SO ₂), nitrogen oxides and particulate matter.
Availability	The fraction of a given operating period in which a generating unit is available without outages and capacity reductions. Also known as Equivalent Availability Factor.
Capacity purchase	Additional third-party owned power generation capacity contracted by CLP under long-term agreements to meet customer demand. Some of these agreements may confer CLP rights to use the generation assets and exercise dispatch control as if they belonged to the Group.
Capacity tariff	The agreed part of the tariff for maintaining a given level of electricity generation capacity for use by the purchaser, as specified in a power purchase agreement.
Carbon neutral	When the greenhouse gas emissions associated with an activity or entity are balanced by carbon removal elsewhere, such as carbon credits, carbon sinks or storage, and Renewable Energy Certificates.
Climate Action Finance Framework (CAFF)	Launched in 2017, CAFF supports the transition to a low-carbon economy by attracting socially responsible, sustainable financings, and to support CLP's investments that reduce the carbon content of energy generated and increase the efficiency of energy usage. The CAFF formalises and governs project evaluation, management of proceeds and reporting for Climate Action Finance Transactions, including bonds, loans and other forms of finance.
Climate Vision 2050	CLP's Climate Vision 2050 sets out the blueprint of the Group's transition to net-zero greenhouse gas emissions leading up to mid-century. Launched in 2007 with a focus on the ambition to mitigate CLP's climate impact, Climate Vision 2050 has been instrumental in informing CLP's business strategy and guiding its investment decision-making.
Combined-cycle gas turbine (CCGT)	A technology used in gas-fired generation to enable significantly higher efficiency by utilising residual heat from gas turbine exhaust to run steam turbine and generating additional electricity.
Decarbonisation	Decarbonisation of the power sector refers to the reduction in the greenhouse gas emissions from electricity generation, and providing lower-carbon energy services and solutions to customers.
Demand response	Demand response programmes encourage participating customers to commit to short-term reductions in electricity demand, helping energy suppliers to keep the grid running optimally during high load periods.
Development Plan	The Development Plan, part of the Scheme of Control (SoC) agreement in Hong Kong, covers capital projects for the provision and future expansion of electricity supply systems of CLP, to be implemented over a given five-year period, subject to the review and approval by the Executive Council of Hong Kong.
Digitalisation	The application of new information technologies including artificial intelligence and data analytics to help electricity utilities develop new customer-centric services and improve operations.
Distributed energy	Distributed energy includes power generated from sources such as solar panels and wind turbines located close to the users, as well as controllable loads or storage such as electric vehicles and batteries.

Term	Definition
Double materiality	Under the concept of double materiality, companies assess matters affecting business sustainability from two perspectives: firstly financially material topics that create or erode enterprise value; secondly impact material topics with potential effects on people, the environment and the economy. The concept was formally proposed by the European Commission in 2019.
Electricity sent out	Gross electricity generated by a power plant less self-generated auxiliary power consumption, measured at connecting point between generating unit and transmission line.
Energy-as-a-Service	Evolution in the business strategy of energy companies to provide a more diverse range of value-adding energy services such as energy management and distributed energy resources, enabling customers to benefit from sustainable energy solutions through a schedule of regular payments, minimising upfront costs.
Energy purchase	Electricity purchased by CLP to meet customer demand under long-term agreements from power plants not owned by CLP, and without existing capacity purchase agreements with the Group.
Energy security	The uninterrupted availability of energy sources.
Energy transition	Transformation of the global energy sector from fossil-fuel based energy systems to low- or zero-carbon sources.
Feed-in Tariff (FiT)	Payable by CLP under the SoC agreement to purchase electricity produced by any of its customers with an embedded renewable energy system qualified to participate under the terms of the FiT Scheme.
Flue gas desulphurisation (FGD) facility	Equipment used to remove sulphur oxides from the combustion gases of a boiler plant before discharge to the atmosphere.
Fuel Clause Account	Also known as Fuel Clause Recovery Account, this account is maintained by CLP Power through which the difference between the standard cost of fuels and the actual cost of fuels is captured and passed on to the customers by way of rebates or charges.
Fuel Cost Adjustment	Fuel Cost Adjustment is either a charge or rebate to cover the difference between the actual cost of fuels spent and the standard cost of fuel collected through the Basic Tariff.
Generation capacity	The maximum amount of power that a generator is rated to produce. Also known as installed capacity or nameplate capacity.
Greenhouse gas (GHG) emissions	The emission of gases that contribute to the greenhouse effect causing a changing climate. CLP's GHG emissions inventory covers the six GHGs specified in the Kyoto Protocol. Nitrogen trifluoride (NF ₃), the seventh mandatory gas added under the second Kyoto Protocol was deemed immaterial to CLP's operations after an evaluation. Under the Greenhouse Gas Protocol, emissions are categorised into three "scopes." Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 are indirect emissions (not included in Scope 2) that occur in the value chain of the organisation.
Grid curtailment	Reduction in the output of a generator from what it could otherwise produce given available resources, typically on an involuntary basis. Curtailment is usually induced by a grid operator because of transmission congestion.

Term	Definition
Incremental distribution network (IDN)	To open up the distribution market in an orderly manner as part of the ongoing reforms of the electricity market in Mainland China, the Government is encouraging power companies to set up IDNs to provide safe and reliable electricity services using a newly added distribution network and to meet demand from users in designated areas such as business and industrial parks.
Independent power producers (IPPs)	IPPs are private entities which own and/or operate facilities to generate electricity and sometimes heat and then sell it to utilities, government buyers and end users.
National Electricity Market (NEM)	Australia's NEM is a wholesale spot market connecting six regional market jurisdictions – Queensland, New South Wales, the Australian Capital Territory, Victoria, South Australia, and Tasmania.
Net-zero greenhouse gas emissions	When greenhouse gas emissions are reduced, and the residual emissions are balanced by the removal of an equivalent amount of greenhouse gases from the atmosphere.
Non-carbon energy	Energy from power sources that add no extra carbon to the atmosphere, such as wind, solar, hydro and nuclear energy. It does not include waste-to-energy and other forms of biomass.
Offshore LNG terminal	Offshore LNG terminals receive cargos of LNG for processing into fuel. The Floating Storage and Regasification Unit (FSRU) is where the LNG cargo is unloaded, stored and regasified for transport to a power station or other users.
Offtake	A long-term agreement to purchase electricity from another generator. See capacity purchase.
Particulate matter (PM)	Microscopic solids or liquid droplets in the air.
Peaking plant	A power generating station that is normally used to produce extra electricity during peak load times.
Permitted rate of return	Under the SoC agreement with the Hong Kong Government, CLP has a permitted rate of return of 8% on the total value of average net fixed assets for a given year, which is the average of the cost of CLP's electricity-related fixed assets less depreciation at the beginning and end of that year, calculated in accordance with the SoC agreement.
Power Purchase Agreement (PPA)	A long-term electricity supply agreement specifying deliverables such as the capacity allocation, the quantity of electricity to be supplied and financial terms.
Pumped hydro energy storage	A method used for large-scale storage of power. During non-peak times, electricity is used to pump water to a reservoir. During peak times, the reservoir releases water for hydroelectric generation.
Renewable energy	Energy that is generated from renewable resources, which are naturally replenished on a human timescale, including sunlight, geothermal heat, wind, tides, water, waste-to-energy and various forms of biomass.
Renewable Energy Certificates (RECs)	RECs are designed to allow customers to purchase certificates which represent locally generated renewable energy purchased or generated by CLP.

Term	Definition
Scheme of Control (SoC) agreement	The SoC agreement sets out the electricity regulatory framework, procedures and policies for the 1 October 2018 – 31 December 2033 period. It governs and applies to the financial affairs of CLP, the manner in which CLP is responsible for providing, operating and maintaining sufficient electricity-related facilities and supplying electricity to meet demand in Hong Kong over the term of the agreement.
Science-based target	A target for greenhouse gas reductions that is in line with the goals of the Paris Agreement to limit global temperature increase to well below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C.
Start-up accelerator	A programme that offers support including financing and mentorship to facilitate the development of start-up companies.
Tariff Stabilisation Fund	Under the SoC Agreement, if the gross tariff revenue in a period is less than or exceeds the total of the SoC operating costs, permitted return and taxation charges, such deficiency shall be deducted from, or such excess shall be added to, the Tariff Stabilisation Fund.
Utilisation	Gross generation by a power plant unit in a given period as a fraction of the gross maximum generation. Also known as Gross Capacity Factor.
Waste-to-energy	A form of renewable energy generation using waste such as landfill gas.
Wholesale electricity price	The given price for a bulk quantity of electricity in a wholesale market paid by energy retailers or distributors to generators, reflecting prevailing supply and demand.

Information for Our Investors

Annual Report – Publication Dates

Online: 13 March 2023

- > CLP website: www.clpgroup.com (‘Investor Relations’ section)
- > Hong Kong Stock Exchange website: www.hkexnews.hk

Hard copies posted to shareholders (together with Notice of AGM and proxy form) 29 March 2023

Choice of Language and Means of Receipt of Corporate Communications¹

You can ask for this Annual Report in printed form or in a language version other than your existing choice; and change² your choice of language (English and / or Chinese) and / or means of receipt (in printed form or by electronic means through our [website](#)) for the Company’s future corporate communications.

You can make the above request(s) at any time, free of charge, by writing to the Company or the Company’s Registrars or email to cosec@clp.com.hk or clp.ecom@computershare.com.hk.

If your shares are held in joint names, such notice must be specified and signed by all joint holders whose names stand on the Register of Shareholders of the Company in respect of the joint holding in order to be valid.

If you cannot access the corporate communications electronically, please ask us for a printed form and we will send these to you free of charge.

Notes:

- 1 Corporate communications refer to Interim / Annual Reports, Quarterly Statements, notices, documents or other shareholder publications of the Company (including any ‘corporate communication’ as defined in the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited).
- 2 Your change request applies to the next batch of corporate communications if we have at least seven days written notice of your request, otherwise, it will apply to the subsequent batch of corporate communications.

Information for American Depositary Receipts Holders

The Group’s financial statements are prepared in accordance with Hong Kong Financial Reporting Standards (HKFRS). HKFRS differ in certain respects from United States Generally

Accepted Accounting Principles. The Company’s duty to file or submit reports under Sections 13(a) or 15(d) of the United States Securities Exchange Act of 1934, as amended (the Exchange Act), was terminated on 30 January 2008 after the Company filed a Form 15F with the United States Securities and Exchange Commission on 31 October 2007. The information contemplated in Rule 12g3-2(b)(1)(iii) under the Exchange Act is and will be published on the Company’s [website](#).

Company’s Registrars

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Share Listing

Shares of CLP Holdings are:

- > listed on the Stock Exchange of Hong Kong;
- > eligible for Southbound trading through Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect; and
- > traded over the counter in the United States in the form of American Depositary Receipts.

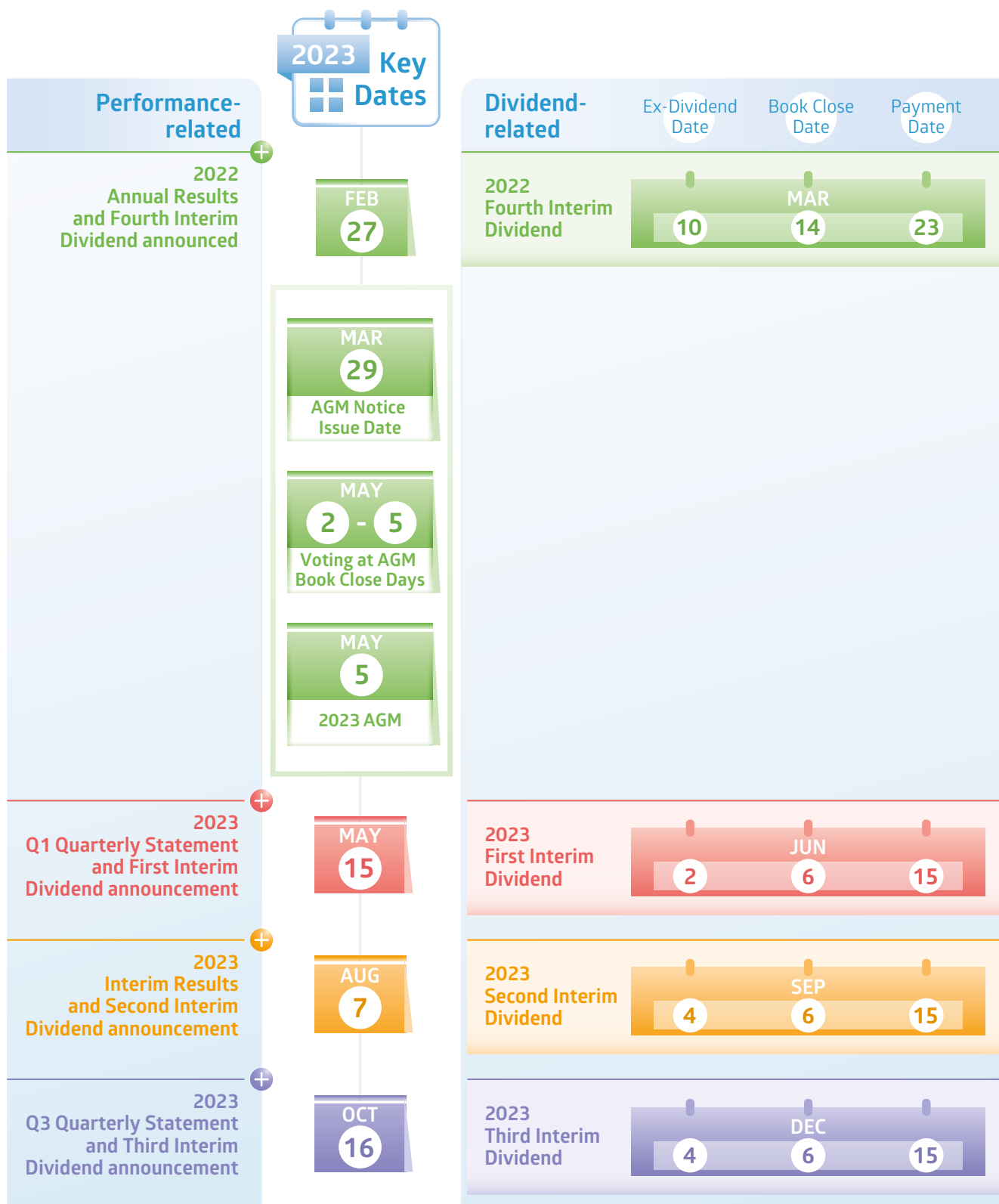
Our Stock Code

The Stock Exchange of Hong Kong: 00002
Bloomberg: 2 HK
Reuters: 0002.HK
Ticker Symbol for ADR Code: CLPHY
CUSIP Reference Number: 18946Q101

Contact Us

Address: 8 Laguna Verde Avenue, Hung Hom, Kowloon, Hong Kong
Telephone: (852) 2678 8228 (Shareholders’ hotline)
Facsimile: (852) 2678 8390 (Company Secretary)
Email: cosec@clp.com.hk (Company Secretary)
ir@clp.com.hk (Director – Investor Relations)

The following are the key shareholder-related dates and events:



Any changes to these dates will be published on our [website](#).

Any shareholders who have questions or comments are most welcome to contact us by calling our shareholders' hotline on (852) 2678 8228 from 9 a.m. to 5 p.m. (Monday to Friday, excluding Hong Kong public holidays) or email to cosec@clp.com.hk (Company Secretary) or ir@clp.com.hk (Director – Investor Relations).

Thank You

Thank you for reading our Annual Report. We treasure the opportunity to communicate with you and we would like to hear what you think. **Please take a moment to complete the online feedback form and share your valuable opinions on the Annual Report with us.** We hope the simpler format of the form will make it easier for you to tell us what information you found useful, and areas where we need to improve. We appreciate your feedback.



Please access the feedback form by using the QR code.

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