Business Performance and Outlook

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

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

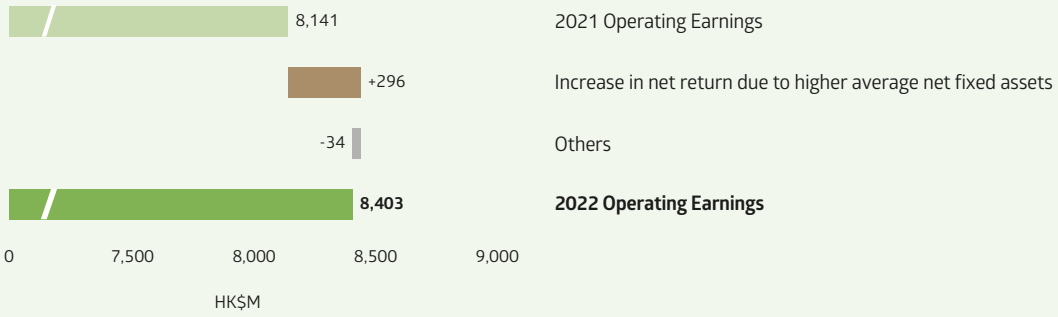
Overview

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.

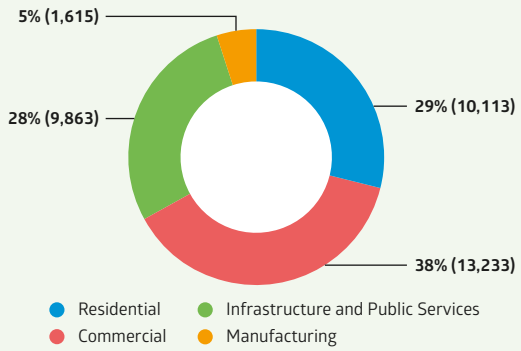
Operating earnings from the Hong Kong energy business rose to HK$8,403 million, up 3.2% from HK$8,141 million a year ago, because of higher invested capital. The performance of the business is summarised below:

Operating Earnings



Hong Kong Electricity Sales in 2022

Local Sales by Sector
% (GWh)



Sales Growth by Sector

	Increase %
Residential	↓ 3.9
Commercial	↓ 1.4
Infrastructure and Public Services	↑ 1.2
Manufacturing	↓ 3.0

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

CLP*e*, 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, CLP*e* 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, CLP*e* 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.

CLP*e* 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. CLP*e* 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 CLP*e* 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 CLP*e* 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.

Mainland China

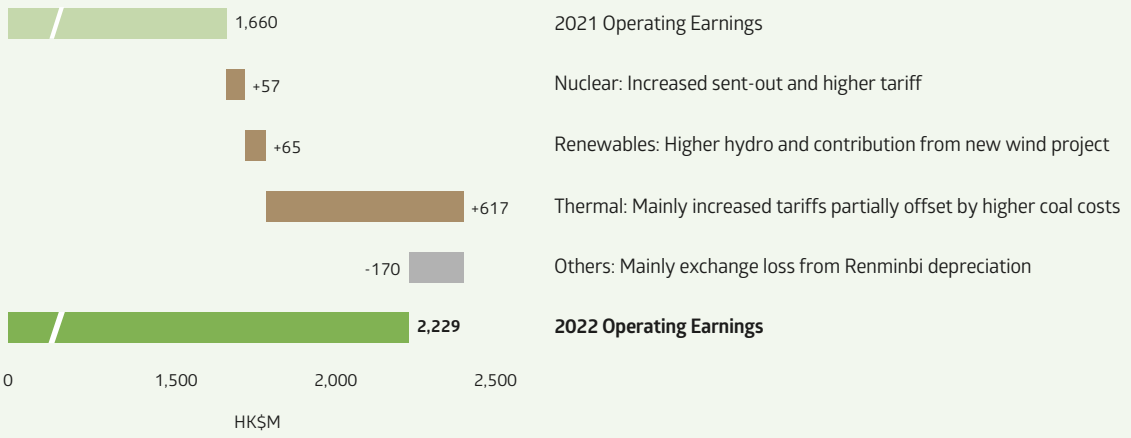
Overview

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.

CLP*e* 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. CLP*e*, 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.

CLP*e* 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. CLP*e* 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). CLP*e* 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. CLP*e* 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. CLP*e* 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, CLP*e* 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, CLP*e*'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 CLP*e* 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 CLP*e* to expand in the GBA and other parts of the country. CLP*e* 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.

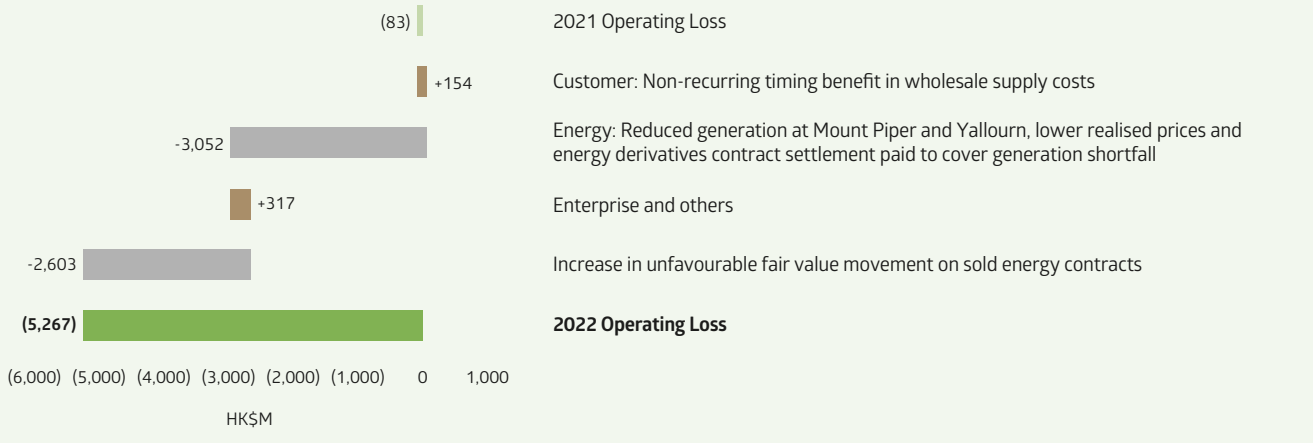
EnergyAustralia's retail business saw growth in both earnings and customer numbers. Forward purchasing of electricity prior to the volatile pricing environment led to a one-off benefit in lower energy supply costs. The benefit, however, was more than offset by the impact of generation shortfalls and 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:

Operating Earnings



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

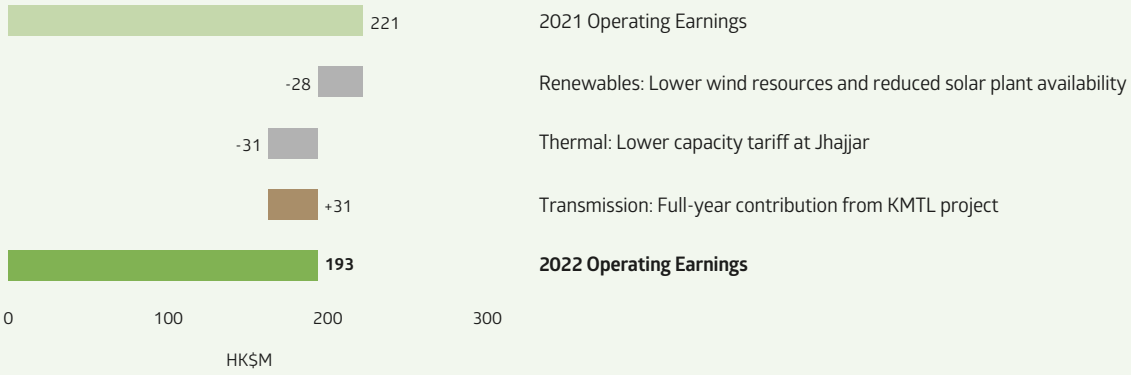
India

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

Rajiv Mishra
Managing Director,
Apraava Energy

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

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.

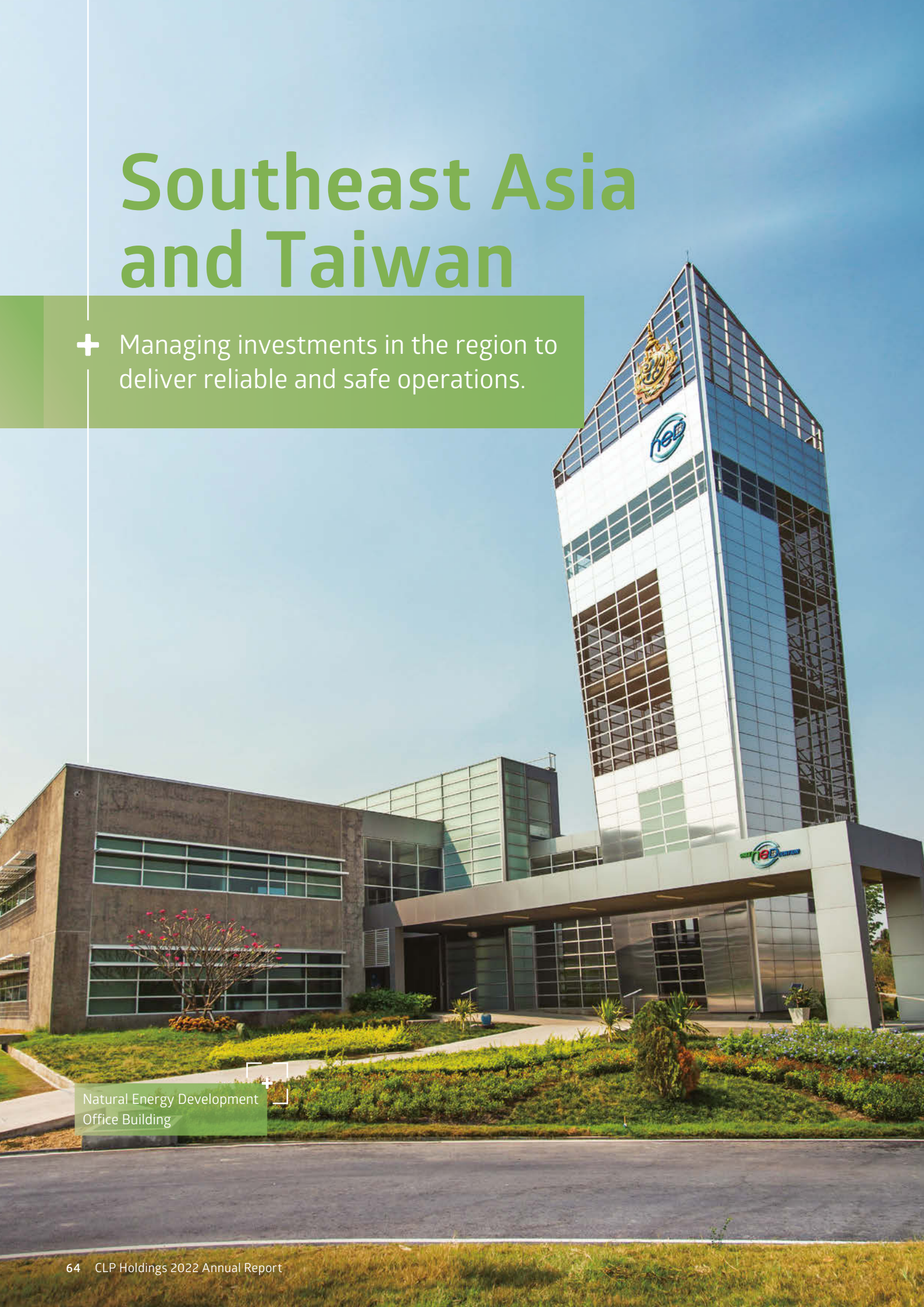
To promote an inclusive culture with the objective of breaking social stereotypes and fostering an environment of openness and empathy, we have held a range of awareness and sensitisation sessions, focusing on unconscious bias, autism, persons with disabilities and the LGBTQ community. Partners of our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

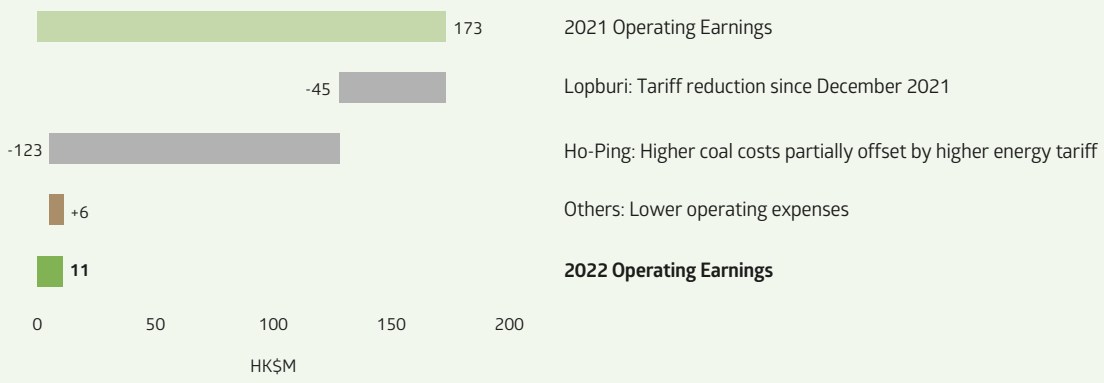
Overview

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.