CLP 中電

Powering a Sustainable Future



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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 and India. 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 to Power Brighter Tomorrows.

Founded in **1901**

CLP Holdings was listed in Hong Kong in 1998

Market capitalisation of HK\$163 billion

Investments across Asia Pacific

- ✓ Hong Kong
- / Mainland China
- ′ Australia ′ India



Highlights of 2023



Total assets HK\$ **229,051** million



(On an equity plus long-term capacity and energy purchase basis; covers CLP's generation and energy storage portfolio)



5.23million Customer Accounts

2.79 million





17,000 km

Transmission and high voltage distribution lines



(Data as of 31 December 2023)

CLP China – Milestones

CLP and Guangdong Nuclear Investment Company CLP was successfully connected to the Guangdong 1979 Limited jointly established Guangdong Nuclear power grid to supply electricity to Guangdong Power Joint Venture Company Limited to build the first large-scale commercial nuclear power station -1985 Daya Bay Nuclear Power Station in Mainland China · CLP built Guangzhou Pumped Storage Power In the same year, Lord Lawrence Kadoorie, then Station Chairman of CLP 1993 • Group, was received by then State leader · Jiang Zemin, then President of the People's Republic Deng Xiaoping at of China, met with Sir Michael Kadoorie, Chairman of the Great Hall of the CLP Group (fourth from left, first row) People • 1997 2001 • CLP invested in the first renewable energy project in Mainland China-Guangdong Huaiji Hydro Power **Joint Venture** CLP and China General Nuclear Power Corporation • **2009** entered into a 20-year extension of the joint venture term for Daya Bay Nuclear Power Station Jilin Qian'an I Wind Farm, the first wind power Dali Yang'er Hydro Power Station in Yunnan, CLP's project invested and wholly-owned by CLP in first wholly-owned hydro power project in Mainland China, was put into operation 2010 • Mainland China, was put into operation Sichuan Jiangbian Hydro Power Station, CLP's 2011 largest hydro power project in Mainland China, was Gansu Jinchang Solar Power Station, CLP's first solar put into operation project in Mainland China, was put into operation 2013 · Yunnan Xicun I Solar Power Station, the first solar project invested and wholly-owned by CLP in Mainland China, was put into operation 2014 Jilin Qian'an III Wind Farm was connected to the grid, becoming CLP's first grid-parity project and 2017 • CLP completed the acquisition of 17% equity interest the first one with a 5MW battery energy storage in Yangjiang Nuclear Power Company Limited system in Mainland China 2021 Yunnan Xundian II Wind Farm, the first wind farm equipped with the largest single turbine generator in 2023 Daya Bay Nuclear Power Station has been operating the CLP fleet with a capacity of 6.25MW, was put into safely for 30 years, supplying Hong Kong with over operation 300 billion kWh of electricity cumulatively · As CLP's first grid-parity solar project in Mainland China as well as the first unsubsidised solar project in 2024 Jiangsu Province, Yangzhou Gongdao Solar Power Station was commissioned in 2023

About CLP China

CLP entered Mainland China's power market in 1979. Today, CLP China is one of the largest external investors in the energy sector in Mainland China. It is powering the fast-growing economy of Mainland China, with a focus on developing clean and low-carbon energy.

Investment Across the Country

CLP engages in the development of the energy sector in Mainland China with determination and integrity, and has investments across 15 provinces, autonomous regions and municipalities. As a developer, investor, project manager and operator in Mainland China's energy market, CLP has more than 50 power generation projects on the Mainland, including 26 wholly-owned projects with a total investment of around HK\$50 billion. As of June 2024, the total installed capacity (on equity basis) of CLP on the Mainland reached 7,510MW.

Focus on Clean Energy

China pledges to peak carbon emissions by 2030 and achieve carbon neutrality by 2060. Along this goal, CLP has developed a long-term development strategy. With the installed capacity of non-carbon energy accounting for around 70% of its total capacity on the Mainland, CLP will continue to significantly expand its portfolio of investments in renewable energy generation in Mainland China, including new wind and solar projects. CLP is also strategically developing nuclear power and other non-carbon technologies, while developing the sales of green electricity products with an aim to help our corporate customers in achieving their decarbonisation targets.

Innovation-Driven Development

The rise of digital and smart technologies is driving the energy sector to upgrade and transform. Moving forward, CLP has set "innovation" as one of its primary goals for long-term development, and is striving to become a "Utility of the Future" by introducing low-carbon, digitalisation, artificial intelligence, big data analysis and other technologies across the business value chain, pursuing innovation and integrated development.

CLP's Asset Distribution in Mainland China

Commitment to Long-Term Cooperation

Building long-term and sustainable business relations is CLP's commitment. CLP has more than 120 years' experience in Hong Kong and more than 40 years' presence in the Mainland's power sector. CLP is pleased to share its expertise with Mainland counterparts, including its extensive experience in international and local investment, design, construction, operation and asset management, as well as its leading customer service experience. While assisting Mainland China's energy sector to establish a balanced and robust development structure, we will grow with our partners to deliver win-win results and create long-term value for stakeholders.

CLP SAS	set Distributio		u Cillia
8%—— 17%——			-7%
			8%
76%	7,5	M	249/
36%			24%
	Non-ca		
	energy port	folio: 68%	

Asset Type	Gross Capacity (MW)	Location
Nuclear	2,685	Guangdong
	1,309	Guangdong, Guangxi, Guizhou, Jilin, Shandong, Shanghai, Yunnan
i∰ Solar	602	Gansu, Guangdong, Jiangsu, Liaoning, Yunnan
🕅 Hydro	489	Guangdong, Sichuan, Yunnan
👘 Energy storage	648	Guangdong, Jilin, Jiangsu, Yunnan, Guizhou
관 Coal	1,777	Beijing, Hebei, Inner Mongolia, Liaoning, Shandong, Tianjin

(Data as of June 2024)

Our Business Portfolio



Nuclear

Nuclear energy is playing a pivotal role in the decarbonisation journey of Mainland China and the world.

Daya Bay Nuclear Power Station in Guangdong is jointly developed, built and operated by CLP and China General Nuclear Power Corporation. It is one of the earliest, largest and most successful joint ventures in the early stage of reform and opening up of the Mainland. Daya Bay Nuclear Power Station commenced operation in 1994, and currently generates around 15TWh of electricity per year, of which 80% of its output is supplied to Hong Kong. Daya Bay Nuclear Power Station has been providing safe, reliable and non-carbon electricity to Hong Kong for 30 years, meeting a quarter of Hong Kong's electricity demand.

In addition, CLP completed the acquisition of 17% equity interest in Yangjiang Nuclear Power Company Limited in 2017, adding approximately 1,100MW of non-carbon emitting generation capacity to CLP's portfolio. Nowadays, all the electricity generated by Yangjiang Nuclear Power Station is supplied to users in Guangdong through the Guangdong power grid.



In 2009, CLP was granted an extension of the joint venture term for Daya Bay Nuclear Power Station. Then Vice President Xi Jinping attended the signing ceremony.





Since 2006, CLP has made significant progress in wind power development in Mainland China, with projects in Jilin, Shandong, Yunnan, Guizhou, Guangdong, Guangxi and Shanghai.

In 2021, Jilin Qian'an III Wind Farm was connected to the grid. With a combined capacity of 199MW, the three-phase project is currently CLP Group's largest wind asset in terms of generation capacity, and the first grid-parity project with a 5MW battery energy storage system.

CLP's first grid-parity wind farm in Yunnan Province, Xundian II Wind Farm, was commissioned in 2023. It is the first wind farm equipped with the largest single turbine generator in the CLP fleet with a capacity of 6.25MW. The construction of 100MW Sandu II wind farm in Guizhou and 150MW Bobai wind farm in Guangxi has commenced.

In November 2015, Yunnan Xicun II project officially commenced operation. Xicun Solar Power Station is CLP's first wholly-owned solar power project and the first large-scale agrivoltaic project in Yunnan. Honeysuckle is planted in the power station, and the combination of agricultural activities with solar power generation brings multiple benefits to the community.

Also, CLP adopts the aquavoltaic model at Jiangsu Sihong Solar Power Station and uses abundant local water resources to develop fish farms under solar panels, breeding crabs, crayfish and mandarin fish, etc.

In 2023, Yangzhou Gongdao Solar Power Station was commissioned. It is CLP's first grid-parity solar project in Mainland China as well as the first unsubsidised solar power project in Jiangsu Province.

CLP will continue to focus on solar-rich regions in Mainland China to explore more opportunities for investment in solar projects.



Honeysuckle planted in the Yunnan Xicun agrivoltaic project is in full bloom.



The contractor of the Jiangsu Sihong aquavoltaic project harvests mandarin fish.



Hydro

In 1997, CLP acquired Huaiji Hydro Power Project in Zhaoqing, Guangdong, which became CLP's first renewable energy investment project in Mainland China. Since then CLP has built and operated 12 hydro power stations in Huaiji.

In 2009, Dali Yang'er Hydro Power Station in Yunnan, CLP's first wholly-owned hydro power project, was put into operation.

In 2011, Sichuan Jiangbian Hydro Power Station, CLP's largest hydro power project in Mainland China, was put into operation.



Sichuan Jiangbian Hydro Power Station





In 1998, CLP invested in its first coal-fired power generation project in Mainland China. Currently, CLP's coal-fired power generation projects in Mainland China, with minority shares only, are located in Beijing, Shandong, Hebei, Tianjin, Liaoning and Inner Mongolia.

Hebei Sanhe Power Station

Energy Storage

The total capacity of Guangzhou Pumped Storage Power Station is 2,400MW, and CLP has the contractual right to use half of the Phase I facility (600MW). In addition, Qian'an III, Xundian II, Sandu II wind farms as well as Yangzhou Gongdao Solar Power Station are all equipped with battery energy storage systems.



Guangzhou Pumped Storage Power Station



The 5MW battery energy storage system at Jilin Qian'an III Wind Farm

Corporate Social Responsibility

Care is one of CLP's core values. We work closely with the communities where we operate to provide care and assistance to people in need, while promoting community wellbeing, environmental protection, education, culture preservation and voluntary work.



A three-year community initiative on rural vitalisation has been launched since 2023, aiming to promote the application and awareness of renewable energy among the next generation, as well as to empower talent and culture development in rural areas. We have delivered several projects in schools and communities, including the installation of over 230 solar lights and smart display panels. A reading room was completed and open to students. More than 6,500 teachers and students have benefited from these projects. In addition, more projects, including a rural historical museum, are being rolled out and delivered.



CLP installs solar lights in schools.

Community Wellbeing

- Every year, we make donations, organise visits and safety talks, and enhance facilities and services to improve the livelihood of the neighbouring community of our assets;
- In 2009, CLP earmarked HK\$6 million to set up the CLP-Tsinghua University "Clean Energy Education Fund" to provide financial assistance to needy students from the Department of Electrical Engineering of Tsinghua University. The Department is known for its outstanding academic achievements and research, and has nurtured a large number of experts for the energy sector in Mainland China over the years;
- In 2017, Jiangsu Sihong Solar Power Station made donations to construct a road named "CLP Hope Road" to enhance the traffic safety for students;
- In 2020, CLP made donations to several provinces in Mainland China to assist in the fight against COVID-19, which benefitted about 350,000 people;
- In 2021, CLP donated HK\$1 million to support the flood relief efforts in Zhengzhou;
- In 2023, CLP donated HK\$1 million to support the relief efforts for the Jishishan earthquake in Linxia, Gansu Province.



At the launch ceremony of the CLP-Tsinghua University "Clean Energy Education Fund", CLP Group Chairman Sir Michael Kadoorie (right) received a certificate of appreciation.

Youth Education

 Supports youth education by subsidising teaching facilities and equipment to schools, as well as providing donations and offering scholarships to students in need.



CLP has made donations to build a library.



Environmental Protection

- Every year, on the World Environment Day (5 June), various assets of CLP launch different environmental activities, such as tree planting, school talks and student drawing competitions to raise environmental awareness among local residents;
- To help ethnic-minority students learn more about environmental protection, CLP has published three editons (Tibetan-Chinese, Zhuang-Chinese, Miao-Chinese) of bilingual booklets on environmental protection, which also helped pass on the ethnic language and culture.



CLP volunteers and their families protect the environment by planting trees.

Culture Preservation

- Launched "The Green Cedar Project" in 2019, a poverty alleviation and cultural inheritance campaign for ethnic minorities in Guangxi, aiming to help the underprivileged students and residents to stay as resilient as local green cedar trees;
- Published the first Black Miao Dictionary in Guangxi Autonomous Region in 2022, featuring about 1,500 vocabularies and short sentences, enables students to learn the language which is ebbing away.



One of the initiatives in the Green Cedar Project is to preserve the minorities culture. CLP has invited a Miao embroidery inheritor to help train up over 100 Miao women in the embroidery craft.

Volunteer Service

- CLP encourages its employees to participate in volunteer activities and has set up volunteer teams to organise various activities in the vicinity of its assets;
- A second consecutive year of "Knitting for the Community" has been launched by CLP in Mainland China. Over 1,100 volunteers from Hong Kong and the Mainland including CLP staff, their family members and the local community in the vicinity of its assets dedicated with love a total of about 6,500 hours to knit over 1,600 clothing items and accessories such as scarves, hats, sweaters, etc.



"Knitting for the Community" campaign brings warmth to children and elderly in need.

Climate Vision 2050

In 2007, CLP launched the Climate Vision 2050 as a strategic guide for the Group to manage climate-related risks and opportunities and to support the Group's transition towards a sustainable and low-carbon future. Our Climate Vision 2050 was updated in 2021 and further reviewed in early 2024. We strengthened the greenhouse gas emissions intensity target for 2030 to bring it closer to the goal of limiting global warming to 1.5°C, while maintaining existing commitments including phasing out coal before 2040. We are committed to reviewing our climate transition plans and targets at least every three years.



CLP's Value Framework outlines our Purpose, Vision and Mission, Core Values, Commitments, and includes our Code of Conduct. Our Policies and Governance approach incorporate our Value Framework into everyday operations and practices. Our success has relied on our firm adherence to a set of deep-rooted and enduring values.

CLP's vision is to be the leading responsible energy provider in the Asia-Pacific region, from one generation to the next. We uphold three core values of Care, Excellence and Responsibility. These values have guided the company to become what is today – one of the leading power companies in the industry, driven by our purpose, to "Power Brighter Tomorrows".



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