CLP 中電



2022 Sustainability Report

Towards a Sustainable Energy Future

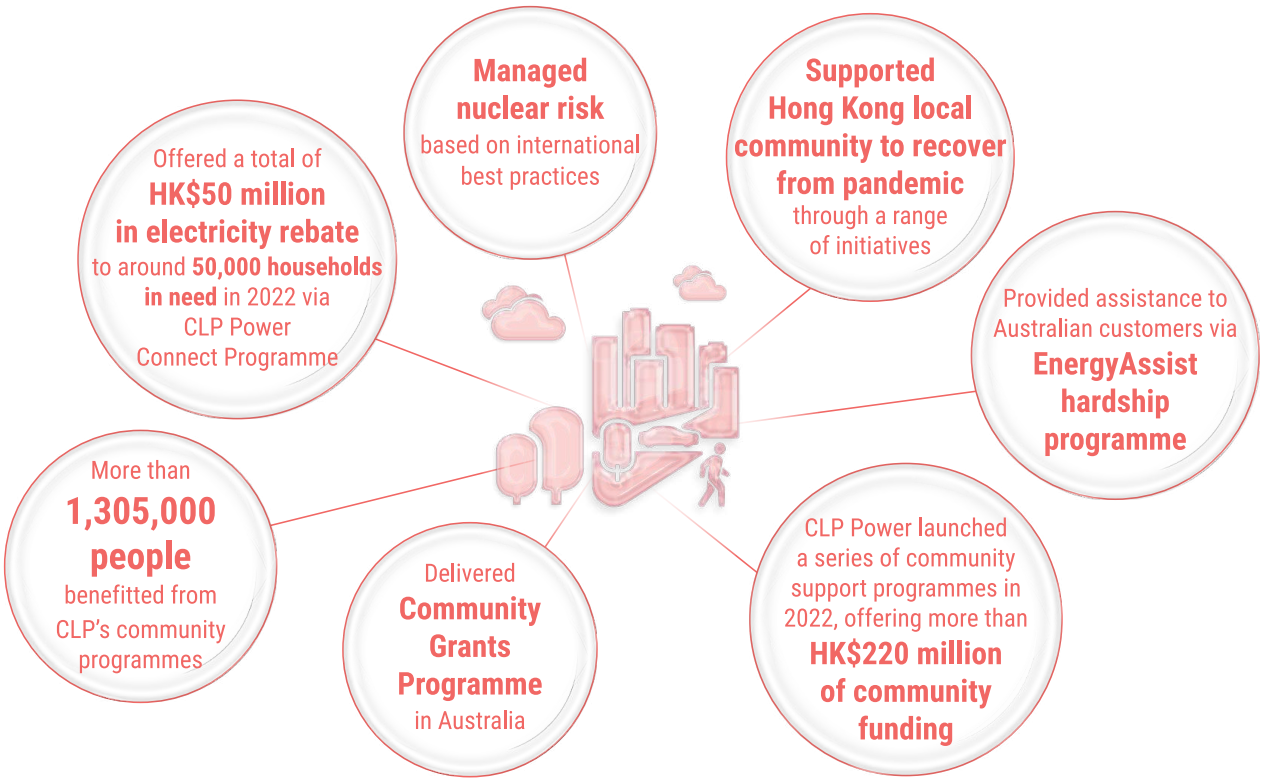
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Community

Overview

Stakeholders' areas of interest	Relevant material topics
• Providing access to reasonably priced energy	**Shaping and executing the transition to net zero**
• Community investment	• Partnering in the clean energy transition
• Safety around CLP's network	**Bolstering energy security and reliability**
• Nuclear safety	• Reliable and reasonably priced energy

Outcome for stakeholders



Providing access to reasonably priced energy

Our approach

Access, in the context of electricity supply, is the ability to use a reasonably priced and reliable electricity supply. CLP understands that electricity services are essential and strives to make them available to all.

Across the Group, services are in place that ensure most challenges, including language, culture, literacy, financial situation or disability, do not prevent people from accessing and using the Company's products and services.

Special arrangements are in place for customers facing financial difficulties to avoid having to disconnect their electricity supply.

In Hong Kong, CLP Power offers a braille bill to assist those who are visually impaired. In Australia, EnergyAustralia provides interpreter services for those with a first language other than English, and also offers hearing-impaired and vision-impaired billing services.

Initiatives and progress

Various subsidy schemes and hardship programmes in Hong Kong and Australia continued to relieve the hardship suffered by those in need and safeguard their access to electricity.

SASB reference: IF-EU-240a.3

Hong Kong

Despite soaring international fuel prices for electricity generation resulting in an increase in the fuel cost adjustment, CLP Power strives to smoothen price fluctuations to provide reasonably priced and stable electricity supply.

During 2022, CLP Power offered more than HK$220 million of community funding to launch a series of community support programmes. For example, while supporting residential customers, CLP Power offered a total of HK$50 million in electricity subsidies to around 50,000 households in need through the ongoing CLP Power Connect Programme. Under the programme, CLP Power also provided subsidies and one-stop support for the landlords of subdivided units to carry out rewiring works, and install individual electricity meters for tenants of subdivided units, to improve the safety of the units and electricity usage tracking. The programme was launched in January 2019, and at the end of 2022, 40 subdivided units were rewired with 134 individual electricity meters installed.

Soaring international fuel prices and surge in the fuel cost for electricity generation have led to an increase in Fuel Clause Charge. To ease the burden of families in need, CLP Power allocated HK$100 million in 2023 to the CLP Fuel Cost Subsidy Programme, providing one-off fuel cost subsidies to 150,000 underprivileged households and tenants of subdivided units in its supply area. In addition to that, it allocated HK$25 million in 2023 to help tenants of subdivided units to improve their home safety and living conditions as well as subsidise families in transitional housing to buy energy-efficient electrical appliances.



CLP Power announced HK$200 million in community support with HK$100 million allocated for subsidising the fuel expenses of 150,000 grassroots families in 2023.

Australia

EnergyAustralia recognises that all customers need to be able to access its products and services fairly and equally. Through its Energy Charter, EnergyAustralia commits to working together to improve affordability and to support customers experiencing vulnerable circumstances.

Download EnergyAustralia's Energy Charter 2022 disclosure

2022 was another challenging year for Australian customers with an unprecedented number of factors impacting their ability to pay – such as longer than expected recovery timeframes for businesses impacted by the pandemic, supply chain issues, inflation, interest rate increases, general cost of living expenses and multiple flooding events on the east coast in Australia. This saw a significant increase in both residential and business customers experiencing financial difficulties and seeking support. In response to the current economic environment and the reoccurring natural disasters from January to December 2022, EnergyAustralia helped residential customers experiencing difficult financial situations by putting in place over 225,851 payment plans and granting more than 363,338 payment extensions. For customers impacted by long-term financial hardship, assistance is available under the EnergyAssist hardship programme.

The programme helps customers by offering tailored payment plans, payment matching and debt waivers, as well as energy efficiency education to ensure that customers are well-informed for making decisions. EnergyAustralia monitors the number of customers on the programme, their debt levels, and the number of successful completions. In 2022, 37,864 account holders entered the programme and 11,441 account holders left the programme after successfully completing their payment commitments. This represents a graduation rate of 30%, slightly higher than 27% in 2021.

EnergyAustralia's business customers were some of the first to access tailored support. Rapid Business Assist, a programme launched in 2020 to support SMEs facing financial uncertainty, continued in 2022. In consultation with customers, specialist EnergyAustralia business advisers customise payment schedules, offer free standard disconnections and reconnections, advise on lowering energy consumption, and provide guidance on government energy relief subsidies. In 2022, the programme provided more than 15,624 payment extensions and over 2,490 payment plans for business customers.

In addition, EnergyAustralia partnered with various organisations to assist customers in financial hardships and improve energy efficiency. EnergyAustralia is a member of The One Stop One Story Hub Partnership, which helps connect its customers and supports those facing Family and Domestic Violence or financial hardship to navigate support programs available without having to repeat their situation multiple times. Since becoming a partner in May 2022, EnergyAustralia assisted 109 customers to date. EnergyAustralia also partnered with Uniting Energy Audits to provide its customers with energy efficiency information via a home or phone audit. This organisation also provided additional support in the form of referrals to other support services and completing applications related to government grant. EnergyAustralia also partnered with the Good Guys to assist with the delivery of new appliances and removal of old ones as part of our appliance swap programme.

Read more on EnergyAustralia's Hardship Policy

Find out about the assistance provided by EnergyAustralia during COVID-19

Community investment

Our approach

CLP strives to build and maintain the trust of the communities in which it operates. "Doing the right thing" is foundational to both the Company's values and social licence to operate.

The Group is committed to contributing to programmes which support healthy, resilient and sustainable community development over the short and long term. In line with the CLP Group Community Initiatives, Sponsorship and Donation Policy on community engagement, the Company aims to:

- Support projects or programmes that reflect the needs and expectations of local communities and are sensitive to prevailing cultures, traditions and values;
- Support projects or programmes that are systematically managed with clearly identified objectives and expected outcomes;
- Engage in long-term partnerships with credible international, national, regional and local community organisations, non-governmental organisations and charities;
- Support projects or programmes that offer an opportunity for CLP's employees to be involved; and
- Regularly evaluate the outcomes and impacts of the contributions.

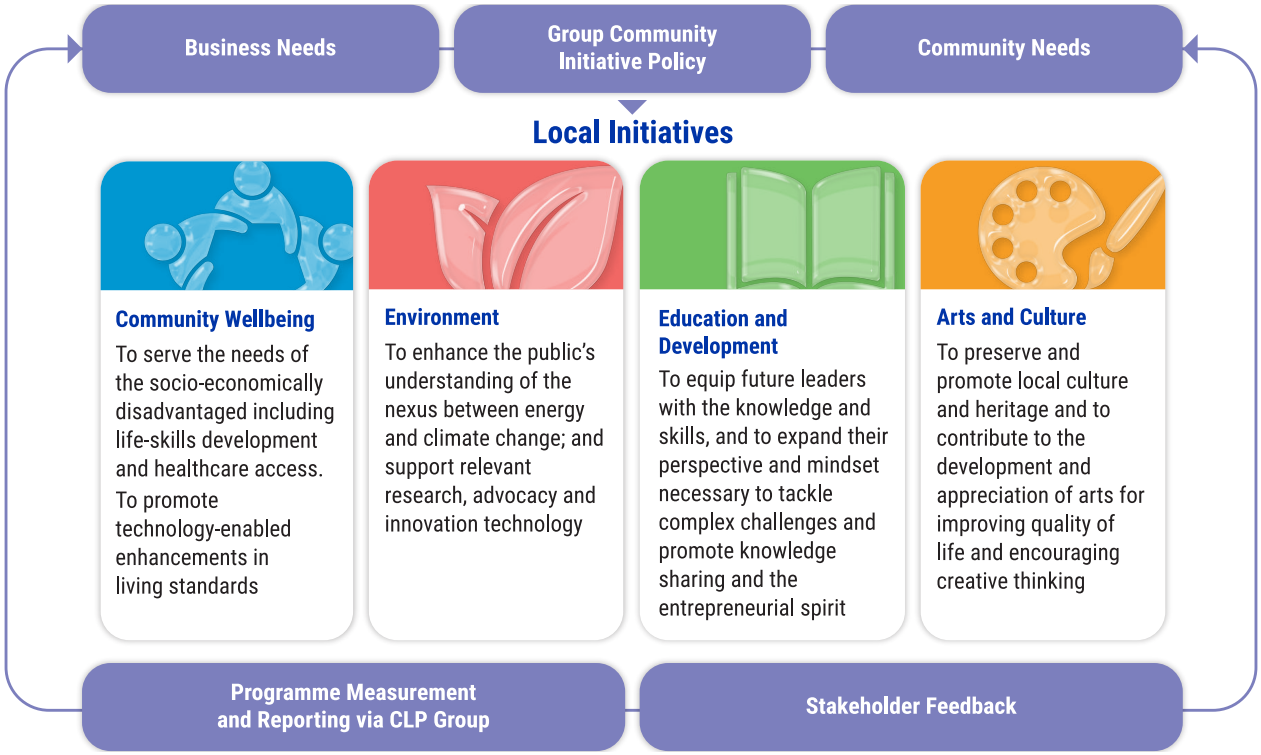
Download the CLP Group Community Initiatives, Sponsorship and Donation Policy

Strategies and procedures

CLP's community investment strategy is guided by the CLP Group Community Initiatives, Sponsorship and Donation Policy, which sets out principles and directions in the implementation of community initiatives across all business units and functions. The policy, alongside the Company's corporate governance and internal control measures, as well as a standardised online reporting platform, aim to facilitate a coherent and transparent approach in the assessment, design, review and reporting of CLP's community activities. This helps ensure resources are effectively deployed to serve the community's needs in a timely manner.

The strategy focuses on four key areas: Community Wellbeing, Environment, Education and Development, and Arts and Culture. Each business unit implements the strategy according to local conditions and community needs.

CLP's Community Initiative Approach



Monitoring and follow-up

The CLP Group Community Initiatives, Sponsorship and Donation policy is reviewed every three years to ensure it aligns with the Company's development and changes in the external environment.

Different socio-economic impact measurement tools that evaluate the social impact of community initiatives have been benchmarked. The most suitable tools are used to review the effectiveness of CLP's community initiatives.

CLP has a standardised online reporting system for reviewing and reporting its community initiatives. The system is designed to enhance the overall effectiveness and efficiency of these initiatives by aggregating data on themes, partners, spending, beneficiaries, volunteer hours and impacts.

Initiatives and progress

CLP Power launched a series of community support programmes in 2022, offering community funding of more than HK$220 million.

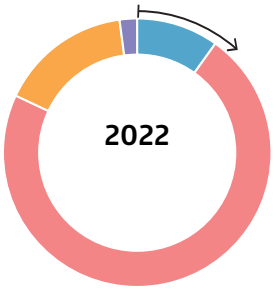
GRI reference: 201-1, 203-1, 203-2, 413-1

	2022	2021	2020	2019	2018
Direct beneficiaries	1,305,000+	1,580,000+	918,000+	615,000+	730,000+
Organisations benefitted[1]	280	232	263	401	434

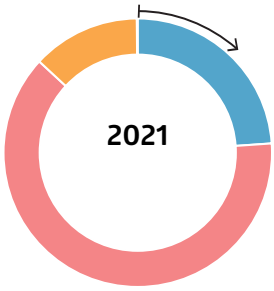
1 Organisations benefitted include professional bodies, academic institutes, NGOs and community groups.

Beneficiaries by theme

Of the more than 1,305,000 beneficiaries in 2022, 72.1% benefitted from CLP's community wellbeing initiatives. The significant increase in beneficiaries resulted thanks to CLP's Retail and Catering Coupons Programme.



- Environment: 9.9%
- Community Wellbeing: 72.1%
- Education and Development: 15.9%
- Arts and Culture: 2.1%



- Environment: 23.9%
- Community Wellbeing: 63%
- Education and Development: 13%
- Arts and Culture: 0.1%

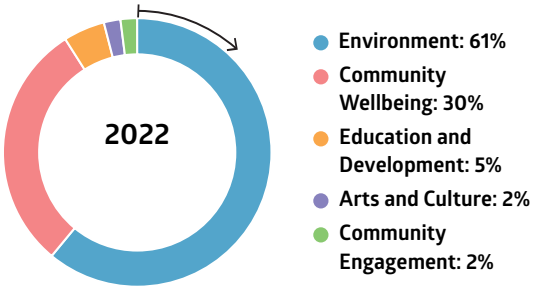
As pandemic restrictions were eased in certain regions, the number of volunteer hours and community programmes contributed increased significantly in 2022. The amount donated by CLP for charitable and other community purposes decreased to HKD$10 million. Community spending by theme and geography is summarised in the charts below.

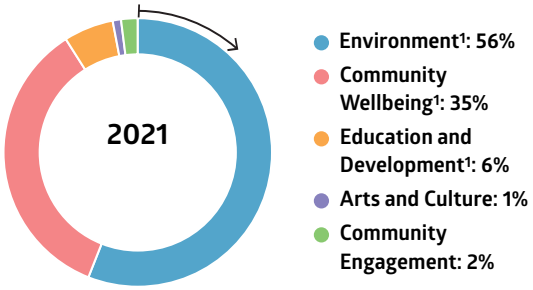
	2022	2021	2020	2019	2018
Amount donated for charitable and other purposes (HK$M)[1]	10.02	15.09	27.00	20.98	18.31
Volunteer hours (hours)[1]	19,329	16,541	10,973	20,015	23,661
Programmes implemented (number)	481	443	468	663	695

1 Numbers have been subject to rounding.

Community spending by theme

The largest percentage of community spending was directed to environment initiatives (61%), followed by community wellbeing initiatives (30%).

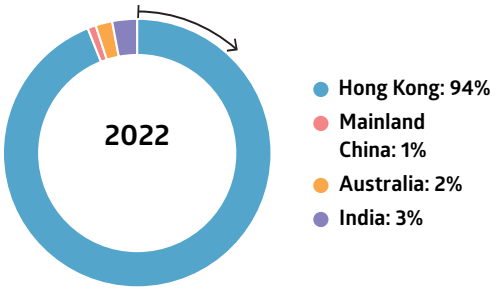


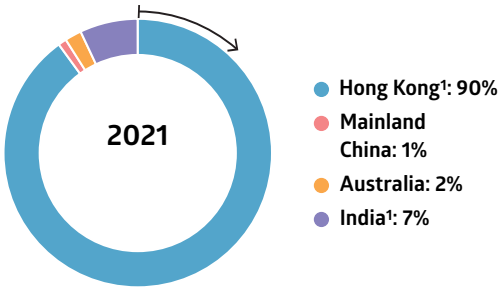


1 Restated as per updated data of spending in 2021.

Community spending by region

The largest percentage of community spending was directed to Hong Kong (94%).





1 Restated as per updated data of spending in 2021.

In 2022 EnergyAustralia's Workplace Giving Programme remains stable, with almost A$380,000 contributed by our employees. The funding raised has contributed to nine charity partners working in the areas of cancer research, homelessness, mental health and education.

Employees at Yallourn Power Station selected The People's Kitchen located in Victoria's Latrobe Valley as one of the newest charity partners. The programme has volunteers cooking meals for those people in the community who are experiencing food insecurity.

In the first year of partnership, The People's Kitchen received over A$20,000 (HK$108,467) in donations from EnergyAustralia's employees and matched by EnergyAustralia. Thanks to the contribution of Workplace Giving Programme, The People's Kitchen have been able to scale up their operations, cooking more meals for hungry people.

Find out more on local community initiatives at EnergyAustralia

Read more on each business unit's community programmes in the Annual Report

Case study

Providing opportunities to young people and nurturing future generations

Fresh graduates and career starters face many challenges nowadays, particularly in the face of economic downturns resulting from the pandemic. Across its business areas, CLP Power is keeping up its efforts to address the needs of local youth and give support in collaboration with various partners.

In Hong Kong, Vocational and Professional Education and Training (VPET) plays a vital role in broadening the learning opportunities of school leavers and in-service personnel. In collaboration with the Vocational Training Council CLP Power launched the CLP Award for VPET Students in 2020. The award assists VPET-enrolled students with their financial needs to allow them to continue their studies. The VPET programmes offer higher diploma training in electrical engineering, mechanical engineering, environmental engineering, computer and electronic engineering, and environmental protection and management.

In 2022, the CLP Community Energy Saving Fund (CESF) has allocated HK$1.5 million to the award, providing a subsidy of HK$20,000 to each eligible student and benefitting a total of 75 students in each cohort. The award not only provides training opportunities to these students in the energy sector, but also helps nurture a new generation of talent for Hong Kong's power engineering industry.

In collaboration with the Correctional Services Department, CLP Power helps young persons in incarceration and those who have been released reintegrate into the society, as well as gain knowledge and skills via career talks and interview skills workshop. Two talks were arranged in Q4 2022 for some 80 young inmates to provide them with information on continuation of study and pathways to engineering.

CLP Power supports the Government's Strive and Rise Programme by nominating 16 mentors, including graduate trainees, young engineers and other representatives from various business units, to join the one-year mentorship programme. The mentors will be paired with junior form underprivileged students on a one-on-one basis and provide them with advice on life and study via a wide range of activities including visits to CLP facilities.

Furthermore, as part of "The Green Cedar Project", a poverty alleviation and ethnic minorities culture preservation campaign launched by CLP in Guangxi, Mainland China since 2019, CLP published the first Black Miao Dictionary in the region to support the educational development of local students. The dictionary features about 1,500 vocabularies and short sentences using Mandarin homophones and Pinyin, enabling students to learn the Black Miao language with ease and appreciate the beauty of the language, which is ebbing away.

Case study

Healing the social scars from the pandemic

To fully support the local community on the journey of pandemic recovery, CLP Power rolled out a range of targeted initiatives to address the needs of the communities of Hong Kong.

During the fifth wave of the COVID-19 pandemic, CLP donated HK$2 million to Hong Kong Community Anti-Coronavirus Link (HKCACL) to buy 10,000 sets of personal protective equipment for volunteers carrying out anti-infection work in the community. To support the community in its fight against the pandemic, CLP Power relaunched an electricity bill payment deferral programme for SMEs in the catering and retail trades, allowing them to defer payment for two months.

Although schools have resumed face-to-face classes, a combination of that and e-learning has become a new normal as the pandemic continues to disrupt normal life. CLP launched a Student E-Learning Assistance Programme to donate new iPads, laptops, internet mobile WiFi hotspots and data SIM cards to 1,500 primary, secondary, and tertiary students from low-income families. The initiative aims to help youngsters with online classes and e-learning as they prepare for the new academic year.

Under the prolonged pandemic, CLP Power facilitated social engagement for the elderly by organising four community tours for over 60 elderly who are living in Sha Tau Kok and Shatin to tour around the historic landmarks and beautified distribution box and substation on the Senior Citizen's Day, enabling them to reconnect with the community and learn more about the relationship between the electricity supply and the community. Over 5,300 goody bags were prepared to elderly in need in 2022.

In addition to supporting HKCACL for purchasing 10,000 sets of personal protective equipment for its volunteers, CLP volunteers prepared more than 13,500 anti-virus goody bags for distribution to frontline medical staff. CLP volunteers used their design thinking skills and expertise to develop a digital solutions management system for the HKCACL, allowing it to better manage volunteer data and inventory, match service and supply requests, and support the operation of its call centre. CLP Power also worked closely with HKCACL on a series of communication campaign themed "One Heart, Fight the Virus" to inject positivity to the society and show appreciation to all walks of life during the pandemic. In addition, 5,500 free meal coupons and emergency food packs were distributed to the CLP Hotmeal Canteens' service users. Over 20,000 nutritious food packs were distributed to children from low-income families through 29 NGO partners. DIY solar fan workshops were arranged for the beneficiaries.

In Mainland China, to support the local community, CLP donated RMB300,000 (HK$371,169) to support the COVID-19 relief efforts by local authorities in Qian'an county, Jilin province, where several of its wind farms are based. Employees meanwhile continued a programme of regular visits to distribute food and necessities to people in villages and elderly homes near CLP's plants during the Chinese New Year holiday period.

CLP's effort in helping people in need through its community programmes is well recognised and won the Outstanding Corporate Award and Gold Award of the Volunteer Hour Award for Corporate in the Hong Kong Volunteer Award 2022.



CLP distributes e-learning devices to 1,500 underprivileged students and encourages them to use them for more effective learning.

Case study

Reconnecting society and strengthening social ties in post pandemic era with series of social events

As we moved forward to the new normal, CLP Power launched a series of social events in Hong Kong to reconnect the society.

To conclude the We Love Dance programme launched in 2021, CLP Power organised a dance competition to promote exercise, energy-saving and caring for the underprivileged, while spreading positive energy to energise the city via a city-wide dance campaign. In the final dance competition, eight teams of talented dancers selected from 50 entrants took to the floor to display their dance moves designed around themes of love, electricity and energy-saving in a show of creativity and vigour. Since the programme launched in October 2021, more than 5,500 participants joined a range of community activities including over 100 community classes, a 10-day mobile truck roadshow and family online dance contest.

In addition to energising the community through dance, CLP Power extended the campaign to support those in need. For every dance completed by participants in the extensive programme of activities, CLP Power offered electricity subsidies to beneficiaries of the CLP Power Connect initiative. The beneficiaries included elderly people, disabled people, low-income families and tenants of subdivided units. The campaign contributed HK$2 million in subsidies to the initiative.



We love Dance concluded with a dance competition that not only energised the city but also encouraged the public to embrace low-carbon living

To spruce up the ubiquitous grey distribution boxes across the city, the Distribution Box Beautification Project was launched in 2021 by featuring the work of local artists on distribution boxes in four districts of Hong Kong. The project has extended to the other 10 districts in the CLP Power's supply area in 2022. The artworks were themed on local landmarks, cultural elements and sustainable power generation. The artworks were developed in collaboration with students of the Technological and Higher Education Institute of Hong Kong and local artists. An artwork exhibition was staged to bring more exposure to the initiative and encourage the public to adopt green lifestyle via appreciation of the distribution box artworks. New guided tours to visit the boxes, the traditional shops and local landmarks at Tsim Sha Tsui, Sham Shui Po and Yuen Long , were conducted for students to inspire them to learn about the unique history of their districts and the relationship between electricity and community. In extension to the Project, Art x Tech workshop has also been introduced to four secondary schools to increase students' awareness in decarbonisation via virtual world applications.

Given its popularity with the local community, the beautification project has also been implemented to substations to enhance the dissemination of green messaging and social engagement. Two murals were completed at Haiphong Road Substation, Tsim Sha Tsui, and Hung To Road Substation, Kwun Tong, in August 2022 and January 2023 respectively. The Beautification Project in 2022 is one of the endorsed programmes under Hong Kong SAR's 25th anniversary celebrations.



CLP Distribution Box Beautification Project
WATCH NOW ▶

Learn more about the Distribution Box Beautification Project

Case study

Teaming up with local initiatives and giving back to the community through EnergyAustralia's Community Grants Programme

EnergyAustralia is committed to making a positive contribution to local communities. The Community Grants Programme provides funding to local initiatives that aim to deliver sustainable benefits and achieve tangible outcomes.

EnergyAustralia is proud to be involved in the communities where it operates. It recognises the importance of engaging with the community to build a vibrant place to live and work. Community Grants Programme support this endeavour by providing funding to local initiatives which deliver sustainable benefits and tangible outcomes to the communities at the sites it operates, including Hallett Power Station, Mount Piper and Wallerawang Power Stations, Tallawarra Power Station, Yallourn Power Station and the Geelong Call Centre.

In 2022, EnergyAustralia provided over A$140,000 (HK$ 759,270) to grass roots communities to support local projects in the areas of education, social inclusion and regional sports and recreation through its Community Grants Programme.

The Geelong Call Centre funded to the Wangala Primary School to build a yarning circle at an unused site within the school's ground. This yarning circle will be a place for students to come together to yarn and share their feelings and stories. It seeks to build resilience as part of their wellbeing programme. 'Yarning' is part of First Nations culture – a culture fully embraced by the school and proudly reflected in its local Wadawurrung name, Wangala, meaning "to make good" or "to make right".

Yallourn Power Station granted its fund to the Thorpdale Primary School for a Sound Writing Program. The Sound Write program uses structured synthetic phonics resources to teach students to read, write and spell. It provides children with the skills to decode words rather than memorise them to learn. Throughout the year, the programme has helped many students at the school learn to read, write and spell using phonics. These grants, which support and connect with the community that Yallourn has been part of for 100 years, are supported by more than 500 employees at Yallourn site.



Fund granted to the Sound Writing Program of Thorpdale Primary School to teach students to read, write and spell

Safety around CLP's network

Our approach

Public health and safety concerns are largely related to electromagnetic fields (EMF) arising from the CLP power system. Measurements of EMF remain well below international guidelines.

GRI reference: 416-1, 416-2

While the Group's HSE Management System Standard sets out an overarching approach to managing the safety risks in operations, responsibility is also taken for preserving public health and safety, including for people who work or live in close proximity to electricity supply lines.

CLP operates a transmission and distribution network in Hong Kong, as well as transmission networks in Shenzhen, China and North-eastern part of India, covering Assam, Nagaland and Manipur. Working near electricity supply lines can pose safety concerns. The Hong Kong and Mainland China operations conduct regular construction site inspections and provide cable plans and safety talks to road work contractors and site management personnel to enhance safety awareness at all locations.

EMF arising from power systems can be of public health concerns. CLP's power supply equipment fully complies with the guidelines issued by the International Commission on Non-Ionizing Radiation Protection. Regular EMF measurements of power supply equipment are carried out jointly with the Electrical and Mechanical Services Department of the Hong Kong Government. The measured EMF levels continue to be well below the guideline limits.

Regarding customer health and safety, CLP Power has customer service centres conveniently located in its supply areas in Hong Kong to provide assistance on product safety, as well as advise on energy-efficient products, energy-saving tips and other account management issues. In 2022, there were no reportable cases of CLP products affecting customer health and safety in Hong Kong.



Maintaining proper Health, Safety and Environment management practices for transmission towers is important to keep the general public safe.

Nuclear safety

Our approach

CLP is the minority owner of two nuclear power stations in Mainland China. The power stations have adopted defence-in-depth principles to ensure multiple independent layers of safety protection.

SASB reference: IF-EU-540a.2

Nuclear risk management

The safe and steady operation of the two nuclear power stations remains a top priority. The defence-in-depth principle of safety is applied across the full spectrum of areas – from design, site selection, operation, radiation protection, environmental monitoring, to emergency preparedness. The safety principle of "As Low As Reasonably Achievable" is also applied to ensure robust radiation protection.

The two nuclear power stations have achieved good safety performance over the years. This achievement is a result of:

- Adopting best international practices, including the International Atomic Energy Agency Nuclear Safety Standards, in its operations;
- A well-trained and qualified workforce;
- Well-established safety practices and procedures; and
- Comprehensive risk analysis and mitigation.

Find out more on nuclear energy

Learn more about the contingency plan of Daya Bay

Nuclear waste management

Daya Bay Nuclear Power Station (Daya Bay) follows national policy and international practices for nuclear waste management. The station stores its spent nuclear fuel onsite in dedicated storage facilities.

The back-end management of the fuel cycle remains onsite for a number of years before being passed on to a service provider licensed by the Chinese Government for reprocessing. The service provider is supervised by the National Nuclear Safety Administration and its environmental impact is monitored by the Ministry of Ecology and Environment. The policy in Mainland China on reprocessing spent nuclear fuel is similar to that of a number of European countries.

As the minority owner of Daya Bay, CLP is not in a position to report on the back-end management of the fuel cycle in China, including the status of the reprocessing plants for spent fuel.

Low- to intermediate-level solid radioactive waste is packed and stored in a dedicated facility onsite on an interim basis and is secured to prevent unauthorised access. The waste is transferred to a final repository operated by a service provider, using the shallow burial method commonly adopted in the United States, France and the United Kingdom. The operation of the offsite repository is under the supervision of the national nuclear regulator and relevant nuclear safety regulations.

Monitoring and follow-up

Radiation exposure for workers is closely monitored and managed by plant operators both collectively and at an individual level as part of operating protocols. Workers incur most of their radiation dosage during planned refuelling outages, when much of the work is undertaken at the nuclear generating units. The level of radiation dosage is typically associated with the number of planned outages carried out at the units, which require inspection and maintenance activities in radiation-controlled areas.

Training and awareness

An onsite training school provides professional training on operational procedures for nuclear sites. The training aims to enhance nuclear safety and systematically minimise human error. There is a once-every-five-years requalification mechanism to ensure operator professionalism and competency in plant operation.

In line with good business practice, Daya Bay has provisioned for the expenses associated with the future decommissioning of the plant as required by relevant laws and regulations.

Initiatives and progress

Daya Bay continued to operate smoothly in 2022. There was a Level "0" Licensing Operational Event which was below scale and with no safety significance in the year.

GRI reference: 306-3 (2016), 306-1, 306-2, 306-3

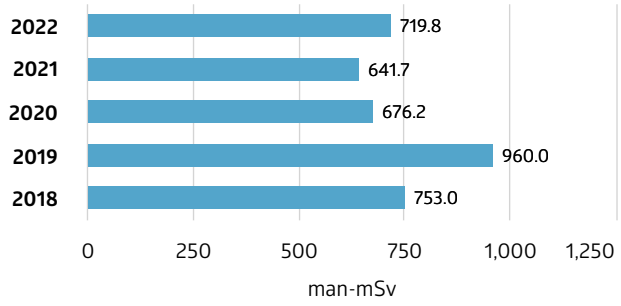
The average dose rate in 2022 was less than 0.4 mSv per person per year. For the purpose of comparison, the background radiation dose rate for Hong Kong is 2.4 mSv per person per year from the natural environment.

The charts below show the amount of spent nuclear fuel and low- to intermediate-level radioactive nuclear waste from Daya Bay over recent years. The amounts of both types of waste are related to the number of planned refuelling outages in each year.

Two planned refuelling outages were carried out in Daya Bay in 2022. Therefore, the total quantity of spent nuclear fuel generated was at an expected level.

Collective radiation dosage for workers

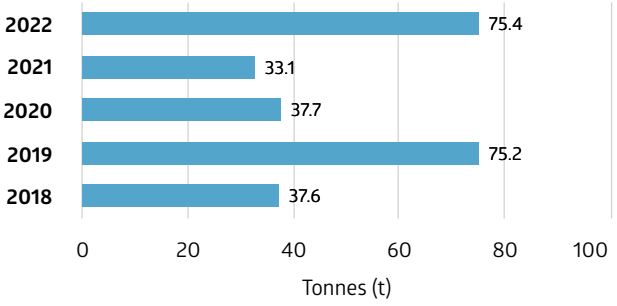
The collective radiation dosage for the year was 720 man-mSv, greater than the 2021 level of 642 man-mSv when there were two planned refuelling outages.



● Collective radiation dosage

Spent nuclear fuel

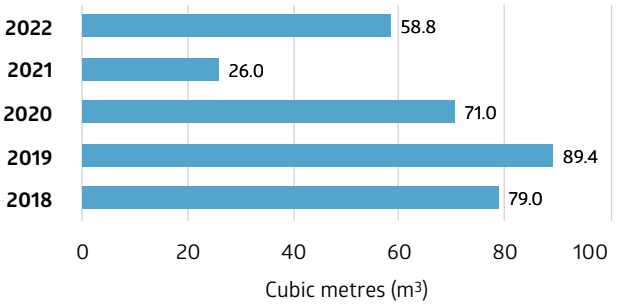
The amount of spent nuclear fuel in 2022 was at expected level given the two planned refuelling outages, while there was only one in year 2021.



● Spent nuclear fuel

Solid radioactive nuclear waste

There was an increase in low- to intermediate -level nuclear waste in 2022, as compared with 2021, due to the extra planned refuelling outage.



● Solid radioactive nuclear waste