

Serving Hong Kong

UBA

Reliable and Affordable Power Supply

Serving our Customers

Putting Safety First

Caring for our Community



We strive to retain the trust of our customers and the community by delivering world-class services and giving back to our society. This aspiration is upheld in our policies for Quality, Customer Services, and Health and Safety, as well as by our caring corporate culture.

The SCA signed between the HKSAR Government and HK Electric protects the interests of our customers by ensuring a reliable and secure electricity supply at reasonable prices. Overseen by our Customer Services Steering Committee chaired by the Managing Director, we hold ourselves accountable to a set of pledged service standards with specific and measurable targets. To drive for continuous improvements, we have quality and asset management systems in place conforming to ISO 9001 and ISO 55001 standards.

The Health and Safety Board, also chaired by the Managing Director, has responsibility for health and safety impacts arising from our business. We implement health and safety management systems in line with the OHSAS 18001 standard, and strive to achieve an accident-free operation that minimises safety risks for our customers and the public.

As part of our commitment to the community, we engage a variety of stakeholder groups and build social capital through our community investment programmes. Our strategy is to monitor key social issues, set priorities and allocate resources accordingly, and we have chosen green education and elderly care as the focus areas of our community services.

## Reliable and Affordable Power Supply

Our customers need a safe and reliable service at reasonable rates because electricity is an essential commodity. Hong Kong is a vertical city with a high density of skyscrapers and millions of commuters who rely on electrically powered public transport. Our city's status as an international finance and trade centre depends on efficient and uninterrupted electronic communications and digital transactions with the rest of the world, 24 hours a day.

In 2017, the reliability rating of our electricity supply was maintained at the world-class level of over 99.999% for the 21<sup>st</sup> consecutive year since 1997. As another testament to the reliability of our service, the average duration of unplanned supply interruptions has remained below one minute per customer every year since 2009.

### A Robust Power System

We implement a regime of proactive investment to ensure the robustness of our power supply system. We have recently extended the service life of L2, a 250-MW coal-fired unit, to sustain the installed capacity of Lamma Power Station at a healthy level until 2022 when two new gas-fired units that are now under construction are expected to be in full operation.



Preventive maintenance to ensure a reliable power supply.

In 2017, we also completed upgrading of infrastructure that supplies natural gas to L9 and GT57 to reduce the risk of simultaneous disruption to the operation of these gas-fired units.

To enhance network security, we have overlaid the remaining three ageing cables of our North Point – Parker 132-kV circuits and successfully diverted 132-kV circuits to the new Gas Insulated Switchgear Busbar No.2 located at North Point Switching Station.

## Monitoring and Control

We strive to operate the most reliable transmission and distribution network and remote monitoring and control system of any power company in the world. We utilise early detection and advanced diagnostic techniques and carry out a comprehensive maintenance programme to ensure timely repair or replacement of all primary and secondary equipment.

### Case Story

#### Safeguarding our Network from Cybersecurity Threats



We must be vigilant in the face of increasingly sophisticated cyber-threats to safeguard the integrity of our IT systems and to protect our infrastructure and data from attack.

We have adopted a new Corporate Security Policy encompassing all technical, regulatory and managerial aspects of cybersecurity, and we have introduced a new cybersecurity management framework that is based on coordinated use of multiple security countermeasures, known as the “defence-in-depth” strategy.

During the year, a team of outside experts simulated a hacker-attack on our network and helped us identify additional security controls that are required. We also organised a series of seminars and training programmes for our employees on cybersecurity.





Our System Control Centre monitors our power supply systems around the clock.

In 2017, a potential failure in our high-voltage transmission network was averted using advanced online partial discharge detection technology that helps improve the reliability of gas-insulated switchgears. We also extended the use of this technology to seven more primary zone substations in our distribution network. During the year, 24 11-kV cable faults were averted and 17 potentially faulty 11-kV cables were replaced or removed.

In 2017, we conducted a network reliability and operation review with the aim of improving system performance. We are also commissioning a new Energy Management System and a new Distribution Management System, incorporating purpose-built smart grid features.

We are in the realisation phase of a new project to implement Strategic Asset Management and Operational Support Applications (SAMOSA). When the new system goes live in early 2019, it will help optimise and standardise end-to-end asset management processes within and across all business units.

## Affordable Energy

We are committed to keeping our tariffs stable and reasonable for our customers over the long term.

Through to the end of 2017, we honoured the pledge we made to our customers in 2013 to freeze electricity prices at the 2013 level. Our net tariffs were kept unchanged in 2014–15, and reduced in 2016–17. Despite a slight rebound in tariff for 2018 due to a smaller contribution from the Special Fuel Rebate, the net tariff in 2018 is still 16.6% lower than it was in 2013.

To help make electricity affordable for everyone, we continue to offer concessionary tariffs for the elderly, the disabled, single-parent families and the unemployed. To encourage energy conservation, we offer a Super Saver Discount for residential customers who consume less than 100 units of electricity a month.

## Serving our Customers

HK Electric strives to surpass our customers' expectations through continuous improvement in all aspects of customer service. We engage our customers on a regular basis to understand their views and aim to work together to meet their needs.

### Service Standards

In 2017, we continued to meet or surpass all 18 of our pledged customer service standards.

Our 24-hour Customer Emergency Services Centre responds in a timely manner to customer requests through voice calls or SMS. In order to provide a more efficient, coordinated service, all customer calls and job records are managed through a service call system that is integrated with our Distribution Management System.

In 2017, the average waiting time for telephone calls to the Customer Emergency Services Centre was 1.59 seconds, surpassing our pledged service standard of nine seconds. Meanwhile, the average waiting times for telephone enquiry services and counter services at our Customer Centre were less than nine seconds and two minutes respectively.

We provide a comprehensive range of services to SMEs, including the "One-Stop Service for SMEs" webpage that provides them with easy access to information and support about business start-up and energy management.

In April 2017, we introduced a new billing policy for the convenience of customers who consume small amounts of electricity. Immediate payment is no longer required for bills of less than HK\$150, and the account balance will be rolled forward to the next billing period in order to save our customers' time and effort for settling their bills.



We are dedicated to providing our customers with caring and high-quality services.



In August 2017, about 180 colleagues participated in a customer service symposium entitled “Service Excellence Now and Beyond”, at which guest speakers provided insights into the latest developments in the customer service industry. In October and November, we organised customer service workshops designed to “win customers’ hearts” that were attended by about 150 colleagues.

In 2017, we initiated a pilot project to evaluate the potential for widespread deployment of smart meters and advanced metering infrastructure (AMI) technology across our network. During the year, we deployed approximately 2,300 smart meters in various high-rise-building scenarios to test their performance. We are going to install more meters in 2018 in village houses and other sites that pose potential safety risks for manual meter reading. The outcome of this study will provide important insights that will help us modernise customer services and operations and will contribute to the on-going development of our long-term strategy to deploy AMI technology.

In recognition of our excellent customer service records, HK Electric was named Public Service of the Year (Public Utility) by the Asia Pacific Customer Service Consortium in 2017 for the ninth consecutive year.

We also received the 2017 Service Retailers of the Year – Retail (Services) Category Award from the Hong Kong Retail Management Association (HKRMA). Due to our remarkable performance over the previous two years, HKRMA nominated HK Electric to receive the Country Winner – Customer Service Excellence Award (HKSAR) issued by the Federation of Asia-Pacific Retailers Associations in Kuala Lumpur in October 2017.



### Case Story

#### FinTech Helps Serve our Customers Better

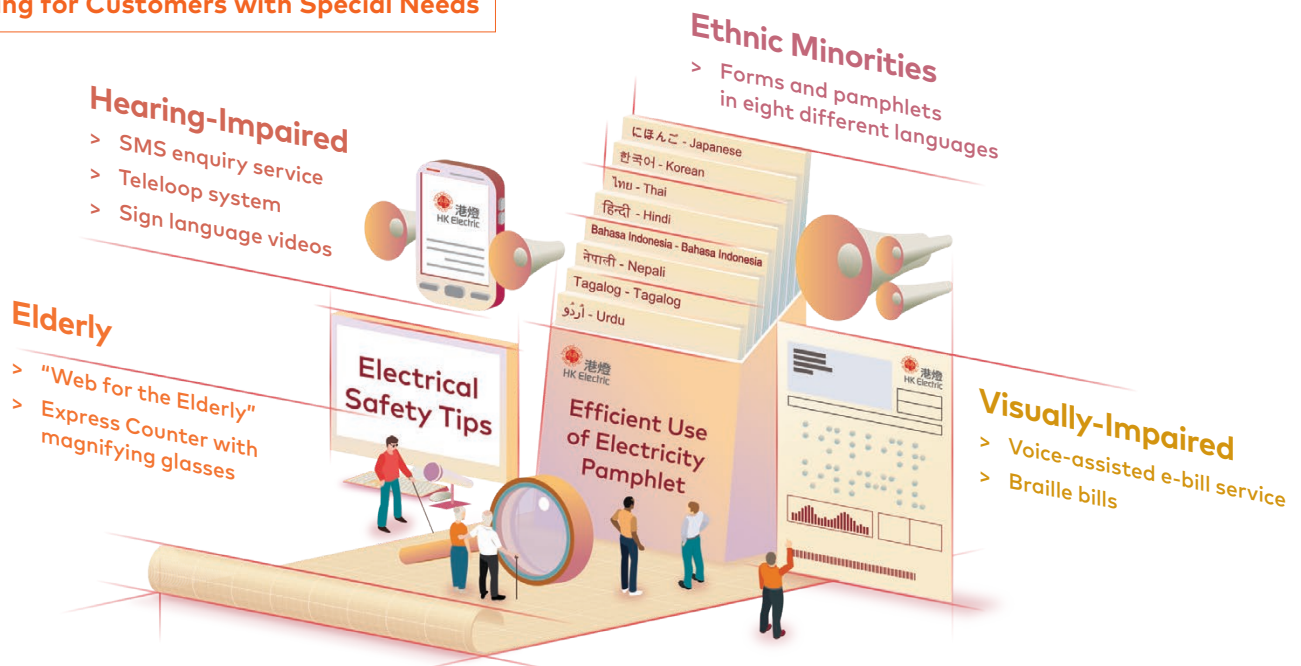
We are embracing new developments in financial technology to offer more convenience for our customers while advocating low-carbon lifestyle choices. In October 2017, we launched a new digital bill payment service through a mobile payment app, AlipayHK. Customers can now enjoy even more convenient access to billing information, receive a monthly payment reminder, and settle payments through their smartphones. A welcome incentive offered by AlipayHK was also available during the promotion period in early 2018.



In 2017, we received 9,791 new subscriptions for our e-Bill service, which helps customers reduce their carbon footprint, on average, by about 510 g CO<sub>2</sub>e per year. Between June and December, we offered participating customers a one-off incentive to register for e-Bill and autopay. Eligible customers entered into two lucky draws to celebrate HK Electric’s 128<sup>th</sup> Anniversary and the 20<sup>th</sup> Anniversary of the establishment of the HKSAR.



## Caring for Customers with Special Needs



## Communication Channels

We publish our quarterly newsletter "HK Electric On-line" to keep customers up-to-date on the company's developments and initiatives. In addition to sending out this newsletter to customers with their electricity bills, we also make it available for reading on our website.

We encourage our customers to share their opinions with us through various channels. In addition to hosting "We Meet on Friday" sessions every month in a friendly and casual setting, we also conduct regular Give-Me-5 surveys to collect feedback on specific service areas.

In 2017, the findings of our after-service satisfaction surveys indicated that the average customer satisfaction index was 4.6 on a 5-point scale. We received a record number of positive comments from 1,857 customers. While no complaints were received about the quality of our electricity supply, seven customers did provide valuable feedback on other aspects of our service. We followed up on all these cases to ensure they had been fully addressed.

We meet regularly with our Customer Liaison Group (CLG), comprising 49 members including customers, district councillors, community organisations and NGOs. In 2017, in addition to hosting our annual meeting in February, we organised in November a special tour for CLG members at the Wah Fu – Bowen cable tunnel to understand how we have sheltered our transmission cables from adverse weather conditions to ensure supply reliability while minimising visual impact on the environment. The tour was followed by a visit to our Connaught Road Zone Substation where solar panels have been installed to demonstrate the benefits and challenges of introducing distributed generation in Hong Kong.

Our Customer Care Manager programme provides account assistance on a range of issues, such as billing and tariffs, supply reliability, power quality, demand management and energy efficiency. In 2017, this programme was revamped with enhanced services to help strengthen relationships with our key customers.

Between April and December 2017, we paid visits to 50 key corporate customers under a new Customer Relationship Management programme, which provides strategic commercial customers, such as data centres, with a single point of contact.

## Customer Privacy

We are committed to safeguarding customer privacy in full compliance with the Personal Data (Privacy) Ordinance and other relevant codes of practice, including our own Privacy Policy Statement and Group Personal Data Privacy Policy. We have guidelines in place for our employees on handling customer data, and we implement a Data Loss Prevention System to guard against unauthorised use of confidential and sensitive personal information.

In 2017, our Customer Information System received ISO 27001 certification for information security management. We participated in Privacy Awareness Week, organised by the Office of the Privacy Commissioner for Personal Data and hosted a seminar on "Data breach: Why it happens and how to handle it?" to raise employees' awareness about the importance of protecting personal data.

## Putting Safety First

We strive to mitigate all safety risks for our customers and members of the public. These safety risks may arise from power supply interruptions affecting critical community facilities and special customers, accidents involving power infrastructure located near neighbouring communities and unsafe use of electricity.

### Dependable Service

Interruptions to the electricity supply poses threats to community facilities such as road traffic control systems, hospitals and buildings' lift systems. We make every effort to deliver a reliable source of power and provide 24-hour emergency support to our customers. Please see the previous sections, "Reliable and Affordable Power Supply" and "Serving our Customers", for more details.

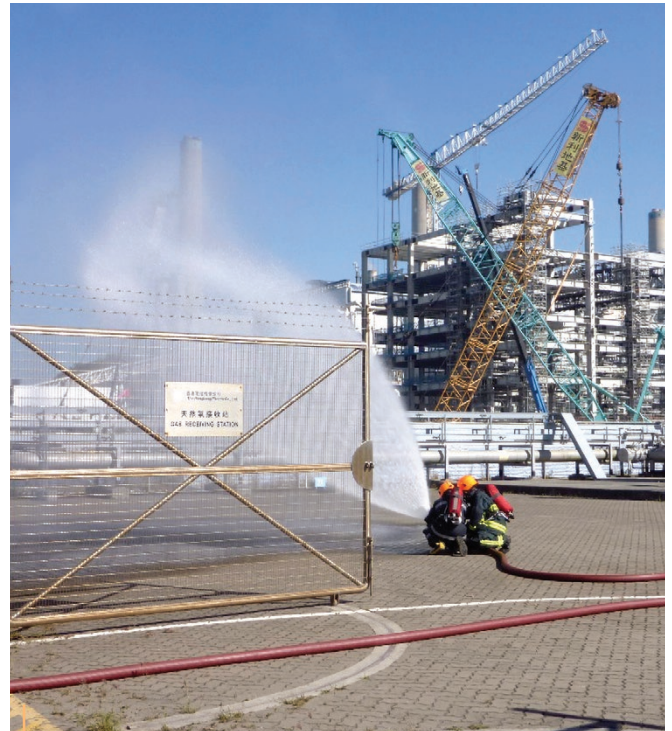
We encourage customers who depend on our power supply to operate life-support equipment to register with us, so we can take extra care of their special power supply needs and provide them with advance notification of planned power supply suspensions. We also develop contingency power supply plans with specific customers and coordinate with them to undertake regular drills. For example, in 2017, we conducted drills in conjunction with three hospitals to test our contingency plans and emergency procedures.



Mobile generator for emergency use.

### Minimising Risks

To minimise safety risks, Lamma Power Station is governed by a Safety Management System conforming to the OHSAS 18001 standard, and we conduct drills to test our responses to emergency situations, such as oil and chemical spills, fire, gas leaks and explosions. Since the introduction of gas-fired generation in 2006, we have had a Natural Gas Safety Management System in place to ensure safe operation and maintenance of our gas facilities and gas-fired generating units.



Fire drill taking place at Lamma Power Station.

Oil-free facilities greatly reduce potential fire hazards for electrical apparatus. We introduced oil-free distribution substations in the early 1980s and oil-free zone substations in the 1990s.

We also engage our stakeholders on safety issues to foster mutual understanding and alleviate their concerns. Contractors and other organisations undertaking work in the vicinity of our transmission and distribution network, for example, are encouraged to refer to a dedicated section on our website for information that will help them avoid damaging our supply lines and other safety incidents.

At Lamma Power Station, we facilitate public tours and conduct home visits to residents of nearby villages. In 2017, we met with residents in Tai Shan Village on Lamma Island on three occasions to ensure they were satisfied with current measures to conserve their living environment.



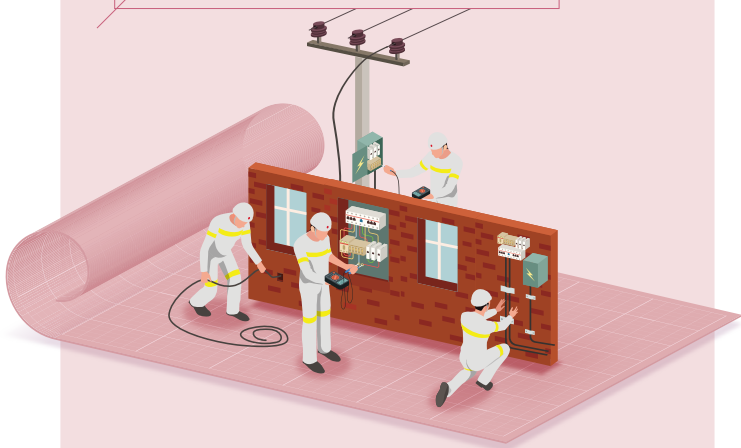
## Safe Electricity Use

In 2017, we organised 45 mini energy efficiency workshops at our Smart Power Centre for stakeholders such as students, professional institutions, academia, business partners and NGOs. We also held four electrical safety and energy efficiency talks at community centres and housing estates and conducted 17 group tours of our Power Quality Centre to help participants better understand power quality and learn how to safeguard power supply to their critical facilities.

In the Electricity@Home and Electricity@Office sections of our website, we provide virtual energy surveys, as well as useful information on energy efficiency, power quality and the safe use of electricity.

### Case Story

#### Important Updates for Electrical Contractors



The Guide to Connection of Supply (GCS) is a useful reference document that we make available on our website to help customers and their contractors prepare electrical installations to receive our electricity supply.

In 2017, we published the sixth edition of the GCS containing important information about changes to the Code of Practice for the Electricity (Wiring) Regulations and other updates relating to interface requirements at the supply point. To promote sharing of best practices among professionals on the revised content of the GCS, we hosted a number of seminars for industry stakeholders.

## Care for our Community

We have a strong CSR mission to work with our community; lending a helping hand to those in need by putting our skills, resources and expertise to good use.

We engage stakeholders on community issues and have established close relationships with both governmental agencies and leading NGOs in Hong Kong. These partnerships enable us to benefit from their expertise in social services, while we in turn contribute manpower, and in some cases professional and technical know-how, to make an even more powerful impact on worthy causes.

### Caring for the Elderly

Dealing with Hong Kong's ageing population is one of the most pressing social issues faced by the city.



HK Electric volunteers visit single elders with district councilors and elderly ambassadors.

HK Electric's "CAREnJOY for the Elderly" programme works closely with all four District Councils on Hong Kong Island, two Rural Committees on Lamma Island and nine major elderly service agencies. The aim of the programme is to reduce risks faced by single elders who have limited or no access to community support. We recruit and train senior citizens to become ambassadors who in turn will encourage other single elders to join local elderly centres for community support.

Under this programme, HK Electric volunteers, CAREnJOY Ambassadors and district council members participate in home visits for single elders. Volunteers help deliver heavy and bulky daily necessities and carry out simple electrical safety visual inspections in the elders' homes.



In 2017, we expanded the CAREnJOY programme to include community gatherings and electrical safety talks in order to reach out to more senior citizens. At these events, the elders also received health tips and enjoyed games, exercises and performances by HK Electric volunteers.

During 2017, the programme extended care to more than 2,000 elders.



Community gatherings and electrical safety talks are introduced under the CAREnJOY programme.

## Case Story

### Sweet Offerings for Seniors



In October 2017, Managing Director, Mr. Wan Chi-tin, made a special visit to the Wan Chai Methodist Centre for Seniors to prepare sweet soup for the elderly residents to enjoy.

Mr. Wan was at the centre to celebrate the opening of newly upgraded kitchen facilities, sponsored by HK Electric, using the latest equipment such as an energy-saving steam cabinet and induction wok. The new kitchen facilities increase the number of meals



Twelve awardees of the "Outstanding Third Age Citizens" are role-models of active ageing.

## Golden Third Age

Founded in 2006 by HK Electric and The Hong Kong Council of Social Services, the U3A (University of 3<sup>rd</sup> Age) Network promotes lifelong learning and volunteerism among retirees in Hong Kong by advocating self-initiated learning, teaching and administration in the pursuit for knowledge.

In 2017, the U3A Network, comprising 51 self-learning centres, conducted more than 780 courses and provided more than 14,000 learning opportunities. U3A student leaders use what they have learnt to serve the community. All students are encouraged to embrace an "active golden age" with particular emphasis on getting active to help resolve issues in their local communities.

In April 2017, we celebrated the special contributions of 12 retirees who were named "Outstanding Third Age Citizens". They come from all walks of life and have a common passion for sharing their experiences and knowledge with others, as well as serving the community.

that can be served to local elderly residents each day from 120 to 180, an increase of 50%.

The use of electric cooking appliances also improves air quality and minimises waste heat and noise at the kitchen, and greatly reduces fire risk, thus creating a safer and healthier cooking environment for the centre's staff whilst reducing energy costs.



## Volunteering for Good Causes

In 2017, the HK Electric Volunteers Team continued to contribute to the community through a wide range of community services and fund-raising initiatives, focusing on caring for the elderly and environmental protection.

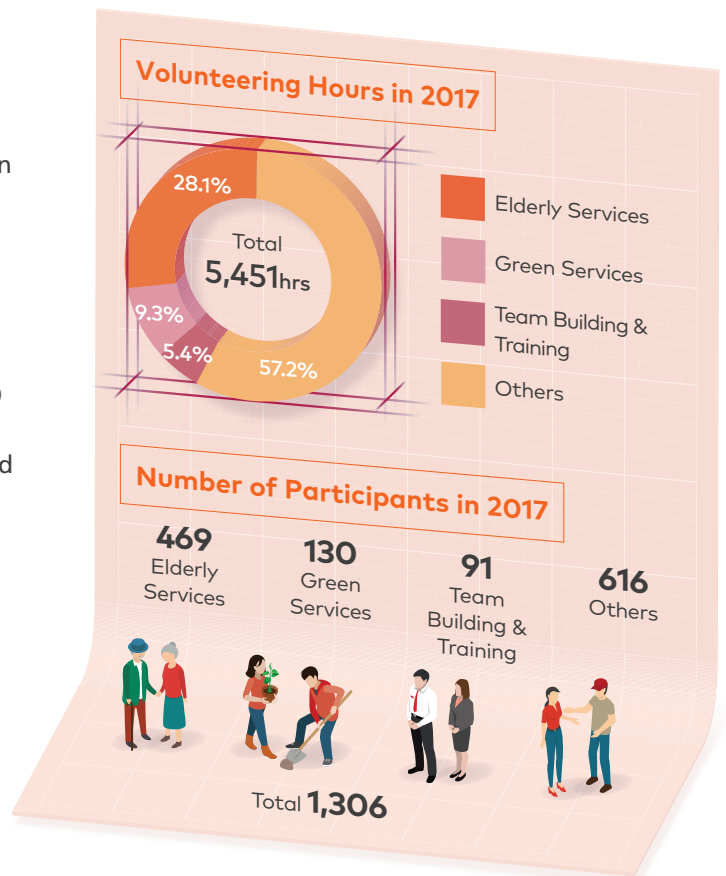
To appeal to the interests of more colleagues, we have diversified our volunteering programme into new areas, such as helping to reduce food waste by re-distributing vegetables from markets to elderly people in need and providing mentoring support to secondary students. All 19 of the new services introduced have proved popular with our colleagues. In 2017, total volunteering hours amounted to 5,451, involving 1,306 participants.

Besides joining our volunteering programmes, our Graduate Trainees also participated in other volunteering activities. Eighteen of them received a Grand Leadership Award and 17 Silver Awards under the HKIE Professional Volunteers Service Accreditation Programme 2015–16 in recognition of their contributions.

In addition to corporate volunteering, our Good Neighbour Fund programme supports employee-led initiatives. In the past four years, for example, the “Care for HK Electric Retirees” project has organised 23 home visits and tea gatherings to express appreciation for our retired employees. Another initiative we support is the Creative Workshop, which is a collaborative project with a local NGO that produces short documentaries about real-life rehabilitation journeys of stroke patients and their families.



More new services are introduced to give variety to our volunteering work, such as this vegetable collection service.



## A Company that Gives

HK Electric supports charitable causes through sponsorships and donations. In 2017, we sponsored 110 projects related to our business, the community and the environment.

Every year, we provide scholarships for secondary school students with financial needs through our Centenary Trust. We also encourage our employees to donate to the Community Chest of Hong Kong through its Employee Contribution Scheme, and to take part in its yearly fund-raising activities, such as Walks for Millions, Dress Casual Day and Love Teeth Day, in support of various charitable causes.

In 2017, the HK Electric Lamma Trust made a donation to support the construction of a 3-storey public building on the seafront near the Yung Shue Wan Ferry Pier. The project, known as the “Yung Shue Wan Library cum Heritage and Cultural Showroom” is expected to be completed by mid-2019. It will provide members of the public and tourists with a new facility to learn more about the history and culture of Lamma Island, including HK Electric’s contribution to the island over the years.

Through various community recycling programmes, we donated 580 pieces of electrical and computer equipment to underprivileged households during the year. We also collected used books for donation to NGOs for charity sale to benefit people in need or support green actions.