

A photograph of a modern glass skyscraper with two children running on a green lawn in front of it. The building has a distinctive cantilevered upper section. A large, leafy tree is on the left, and a row of smaller trees is planted along the base of the building. Two children, a girl and a boy, are running towards the right on the grass. The girl is wearing a pink jacket and the boy is wearing a blue and white striped hoodie. The text 'Serving Hong Kong' is overlaid in white on the lower left.

Serving
Hong Kong



Sustainability
at HKEI

Sharing
our Planet

Serving
Hong Kong

Working
with Partners

We take pride in providing a safe, reliable, clean and affordable electricity supply for our city. As a major public utility, our continued success is based on mutual support and trust between us and our community.



Management Approach

We build customer trust on our unswerving commitment to excellent supply reliability and total customer satisfaction. Our Quality Policy, Customer Services Policy and Corporate Security Policy provide guidance to our employees on continually improving our services. Our Customer Services Steering Committee oversees the performance of the company against specific and measurable targets, including a set of pledged Service Standards. We implement quality, asset management and information management systems certified to ISO standards 9001, 55001 and 27001 respectively to enhance service quality and efficiency.

The new SCA inaugurates a new era of getting smart about the use of electricity, as HK Electric launched a number of services branded under Smart Power Services to support different sectors of our community in pursuing energy efficiency and conservation (EE&C), and the use of renewable energy (RE).

Ultimately, our purpose is to give back to the community we serve. Our community investment strategy reflects our deeply-held belief that lasting impacts are created through partnerships. The main focus of our support is on two key social priorities for Hong Kong, namely promoting environmental protection through public education and caring for Hong Kong's ageing population.

RELIABLE AND AFFORDABLE POWER

Reliable and affordable power is essential for life and business in our vertical city of skyscrapers where millions of commuters ride electrically-powered public transport every day. An efficient and uninterrupted supply of power also underpins Hong Kong's status as an international centre for trade and finance, as well as its ongoing transformation into a Smart City of advanced information technologies.

Risk-based Approaches to Maintain our Electricity Network

	Monitoring Approach	Typical Application	Risk Avoided
	Condition monitoring and advanced diagnostic techniques for network components	Advanced on-line partial discharge detection system for switchgears	Early detection of incipient faults to avoid potential component failure
		Very low frequency monitored withstand test for 11-kV distribution cables	Early detection of water ingress in cable insulation layer to avoid potential cable faults
	"Health Indices" register for network components	Formulation of critical indices for primary and secondary assets such as switchgears, transformers, relays and remote terminal units	Timely refurbishment or replacement to avoid equipment failure



> 99.999%

supply reliability
rating for the 22nd
consecutive year

HK Electric's 24-hour
System Control Centre

<1 minute

average duration of unplanned
supply interruptions per customer
annually since 2009



Robust Power System

At HK Electric, we implement a regime of proactive and preventative investment to ensure the robustness of our power supply system. In addition to building new gas-fired power plants to replace our retiring units at Lamma Power Station, we are also enhancing the capacity and reliability of our transmission and distribution network.

Our "Strategic Asset Management and Operational Support Applications" which comprises of a set of new IT systems to optimise and standardise our end-to-end asset management processes within and across all business units, went live in January 2019.

System Control and Security

HK Electric's 24-hour System Control Centre operates sophisticated real-time computer systems with specially-developed smart grid features to control and monitor power generation, transmission and distribution. It plays a central role in facilitating the safe, reliable and efficient supply of electricity to our customers, while reducing emissions and minimising our carbon footprint.

In case of faults that interrupt supply, our remote control facilities allow us to restore the supply as quickly and efficiently as possible. In 2018 we formed a working group to further improve our average grid supply restoration time.

We also successfully commissioned a new Energy Management System and a new Distribution Management System to further enhance the automation and control capabilities of our operations.

We have management systems in place to protect our facilities, technologies and information assets from both physical and cyber-security threats, but we are facing increasing challenges to secure our network from more frequent, sophisticated and evolving cyber-attacks. In March 2018, we conducted a drill to test our contingency response capability to a serious cyber-hacking incident.



Come rain or shine,

Case
Story 4

we are committed to Excellence



(from left to right)

Tony Yeung

Head of Construction &
Maintenance

Francis Cheng

Operations Director

Ip Sung-tai

General Manager
(Transmission & Distribution)

To ensure a reliable electricity supply for our customers, it is imperative to plan ahead and take precautions. In mid-September 2018, the arrival of Mangkhut – one of the most intense typhoons impacting Hong Kong since records began in 1946 – put HK Electric operations to the test. Due to the preparedness, hard work and dedication of our highly experienced team, service disruption to our customers was minimal.

As the super typhoon approached Hong Kong, our Operations Director, Francis Cheng, felt the full weight of responsibility for seeing to the safe and smooth operations across our network.

“We have a well-established mechanism to prepare for different levels of typhoon,” says Francis, “but foreseeing the power of this super typhoon, we conducted additional checking, particularly at substations near the shoreline, and deployed extra manpower in the typhoon period to ensure our operations would not be at even the smallest risk.”

We asked our stand-by teams to drive home company vehicles equipped with special protection on the day before the typhoon hit Hong Kong to enable prompt support to sites in case of emergency. “This allowed us to deploy manpower more efficiently whenever there is



“ Commitment

Our employees never say no to taking up duty in severe weather conditions and even volunteer to come back to support their colleagues. ”



a service alarm,” says General Manager (Transmission & Distribution), Ip Sung-tai, who was in the “war room” with his team during the typhoon period to monitor the situation closely and to take timely remedial actions.

In the afternoon of 16 September, high sea waves caused serious flooding at Heng Fa Chuen, resulting in power outage in eight blocks and service disruption to residents living there. “Under the adverse weather conditions, the recovery could not be immediate,” says Tony Yeung, Head of Construction & Maintenance who oversaw the works at substations. “But we have to trust the professional judgment of our on-site engineers who need to balance the safety risks and power recovery.” Despite the challenging circumstance, we were able to resume all services in about 13 hours while we continued to give advice to the local management office for repairing their own facilities.

“There is always something we can do better,” says Francis. “Foreseeing the extreme weather to be more common, we have conducted comprehensive reviews from frontline to back-end and proactively work with stakeholders such as building management offices on improving their resilience to extreme weather and how HK Electric could facilitate to speed up service recovery.”

“ Empowerment

We trust and empower our employees to make good decisions on site that balance safety considerations with our service commitment. ”

“ Improvement

We continuously review and improve our performance, and treat all experiences as valuable lessons for a better future. ”

Hours under
Hurricane Signal
No. 10 hoisted

10

Distribution
substations
affected

10

Emergency
service calls

95

Employee
injuries

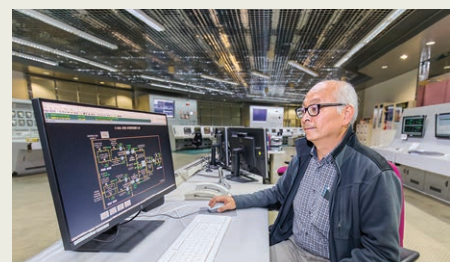
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On-site teams
for resumption of
power services

8

Employees
on stand-by

250



More Heroes Behind

Kum Wai-keung, Chief Operations Engineer, volunteered to remain on duty for more than 30 hours at Lamma Power Station to support his colleagues on typhoon shift. “While I did worry about my family when I learned that my home at Heng Fa Chuen was experiencing power outage, I knew it was equally important for me to stay and support my teammates under such a high-pressure situation. I also trusted my colleagues working hard to resume service for Heng Fa Chuen and finally they did not let us down.” Teamwork and commitment proved to be the key success factors.



Affordable Energy

Reinforcing our commitment to stable and reasonable prices, we are proud to have honoured our pledge not to raise our electricity tariff above its 2013 level for a 5-year period. Indeed, despite incurring a modest rebound compared with 2017's figures, our net tariff per unit of electricity in 2018 was still 16.6% lower than that in 2013.

Due to the substantial reduction in two special rebates that we offered in the previous two years, there is a rebound of 6.8% in our net tariff for 2019 compared with that of 2018. If the effect of the two special rebates was taken out, the net tariff for 2019 would have been lower than that of 2018 by 5.9%, mainly because of a decrease in our permitted rate of return from 9.99% to 8% under the new SCA.

We are mindful that in the coming years various factors will apply additional upward pressure on our tariff, such as rising capital expenditure and operating costs associated with more consumption of natural gas, and we will strive to minimise such impact.

Meanwhile, the Government has been granting an electricity charges relief of HK\$50 per month to each eligible residential account every month from 1 January 2019 until 31 December 2023 or whenever an account is closed. Tenants of sub-divided units (SDU) who are on the Government's Comprehensive Social Security Assistance Scheme are also eligible for a subsidy of HK\$500 per year provided by HK Electric.



Concessionary Tariff Schemes

for the elderly, the disabled,
single-parent families and
the unemployed



Super Saver Discount

for residential customers
consuming less than 100 units
a month to encourage energy
conservation

SERVING OUR CUSTOMERS

We strive to surpass our customers' expectations through continuous improvement in our services, and recognise the importance of engaging with them to understand their needs.

Service Standards

In 2018, we met or surpassed all 18 of our pledged Customer Service Standards covering areas of electricity supply, connection of supply, electricity accounts and meters, customer enquiries and emergency services.

During the year, the number of positive commendations reported by customers reached a record 1,947, which reflects a high level of customer satisfaction. On the other hand, we received no service-related complaint but one complaint concerning the quality of our electricity supply. We followed up the complaint immediately to resolve the issue and prevent re-occurrence.

To support Hong Kong's transformation into a Smart City, we are preparing for a large-scale roll-out of smart meters under the approved 2019-2023 Development Plan, which will improve our customer services and grid operations and facilitate customers' demand-side energy management. Our pilot project on deploying advanced metering infrastructure technology, currently in progress, will help shape our longer-term strategy.



New Bill Design

In October 2018, we launched newly-designed electricity bill statements providing customers with more information on accounts and new services. A QR code is also available on the new bills for making payment using Faster Payment System.



Star Brand Award
(Enterprise) 2018

Care for our Customers



Greater
Convenience

Customer Emergency Services Centre

- To provide 24-hour hotlines for emergency support

Account-On-Line Service

- To provide round-the-clock interactive access to electricity account via our website and app

E-billing and E-payment Services; Group Billing Service; Bill of Small Outstanding Amount

- To provide green and convenient options for billing and payment

One-stop Services for SMEs and Data Centres

- To provide tailored electricity and tariff advisory services in particular to expedite business start-up

Customer Relationship Management Programme

- To make ambassador visits to corporate customers and provide them with one-stop service on technical and account matters



Supporting for
Special Needs

Ethnic Minorities

Forms and pamphlets in eight minority languages

Hearing-impaired

Videos supported with sign language; SMS enquiry service; Teleloop system at service counter

Visually-impaired

Voice-assisted e-bill service; Braille bills

Elderly

"Web for the Elderly"; Express counter with magnifying glasses

Disabled

Dedicated wheelchair-friendly counter; Automatic doors at customer service centre



HK Electric Customer
Liaison Group Meeting cum
Annual Luncheon 2018



Customer Satisfaction

In 2018, the findings of our after-service satisfaction surveys indicated that the average customer satisfaction index was 4.6 on a 5-point scale.

Customer Communication

We meet regularly with our Customer Liaison Group (CLG) comprising members from our customers and stakeholders from District Councils, community organisations and NGOs from Hong Kong and Lamma Islands. This is a critical platform to help us gauge public opinion about our services.

In 2018, we invited more community representatives to join the CLG so that we could engage with them on a range of new topics such as our new Smart Power Services. As of end 2018, there were about 50 members in our CLG.

We strive to keep all customers up-to-date on our news and developments through our quarterly news bulletin, HK Electric On-line, and our annual Customer Services Standards brochure containing an overview of our customer services and new service initiatives.

We also strongly encourage our customers to share their opinions through our Customer Services Hotline and Customer Suggestion & Feedback Form. In addition to hosting "We Meet on Friday" sessions on a monthly basis, we also conduct regular "Give-Me-5" customer surveys to collect feedback on specific service areas.

Customer Privacy

We safeguard customer privacy in compliance with the Personal Data (Privacy) Ordinance and other relevant codes of practice, guided by our Group Personal Data Privacy Policy. Our commitment to personal data privacy is set out in our Privacy Policy Statement.

In addition to issuing guidelines for our employees on the handling of customer data, we have also implemented a system of controls to prevent them from making unauthorised use of confidential and sensitive information. To raise our employees' awareness about the protection of personal data, we organise briefing sessions on Data Privacy twice a year. In September 2018, we also organised an in-house seminar entitled Personal Data Compliance: Collection of Identity Card Number or Copies of Identity Card.

We have various cybersecurity protection measures in place to safeguard the company's information assets against unauthorised access and malicious attacks. We also publish The Cybersecurity Corner, a quarterly newsletter for our employees providing updates, news and tips. In May 2018 we held several cyber-security workshops for our employees.



SMART ENERGY USE

In Hong Kong, the vast majority of our energy saving opportunities is in our built environment. Consequently, EE&C is key to reducing both the energy and carbon intensity of our city. HK Electric promotes the smart use of energy by assisting customers to enhance the energy efficiency of their buildings and through educational programmes for the public. We also support wider community participation in the supply of RE.

Building Energy Efficiency

In 2018, through our Smart Power Fund, we provided subsidies on a 50/50 matching basis to owners of residential buildings when they improved the energy efficiency of existing building-services installations such as lighting, lift-driving and air-conditioning systems. Projects implemented under this scheme not only satisfy the requirements of Hong Kong's Buildings Energy Efficiency Ordinance but also benefit building residents through improved services.

During the year, we approved 23 Smart Power Fund applications amounting to HK\$6.8 million worth of subsidies. Since the inception of the Smart Power Fund in June 2014, more than 70 applications have been approved.

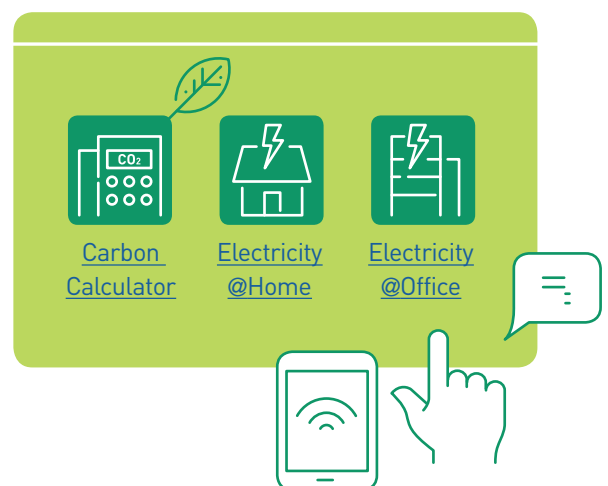
In 2018 we also carried out more than 50 free energy audits for non-residential customers, such as offices, schools and community centres. Eligible applicants can then apply for

interest-subsidised loans from collaborating banks through the Energy Efficiency Loan Scheme to implement the energy saving measures identified through the audits.

Informed Choices

We want to help our customers make smart energy choices by providing them with useful information in their electricity bills. These include data on monthly per capita electricity consumption for residential customers and carbon emissions per unit of electricity consumed.

A load profile enquiry service is available for SMEs to make better use of energy as part of their overall business strategy. On-line tools on energy management are also available on our corporate website.





New Smart Power Services

In January 2019, we introduced a suite of new and upgraded funding and service schemes – collectively known as Smart Power Services – to foster EE&C and promote RE and low-carbon lifestyle in the community. These initiatives help fulfil our obligations under the new SCA while making a meaningful contribution to Hong Kong's transformation into a Smart City.

The Smart Power Services comprise four funding and three service schemes catering to the needs of different sectors including residential, commercial and industrial customers, as well as education and welfare organisations. Our priority is to help the most vulnerable members of our society, while also supporting building owners who lack financial resources and technical expertise.

We engage with our stakeholders about Smart Power Services through a range of channels including a dedicated webpage on our corporate website, our low-carbon app, info-graphic videos, a phone hotline and email enquiry service as well as posters and leaflets. We also completed in end 2018 a Smart Power Gallery in Sheung Wan with educational exhibits on climate change, RE and Hong Kong's future development to become a Smart City.



Customers may apply for the Smart Power Building Fund for retrofitting energy-efficient building services installations.



A rap performance to launch HK Electric's Smart Power Services



Smart Power Care Fund subsidises the need to replace old home appliances with energy-efficient ones.



Ocean Park is among the first to support the Feed-in Tariff Scheme.

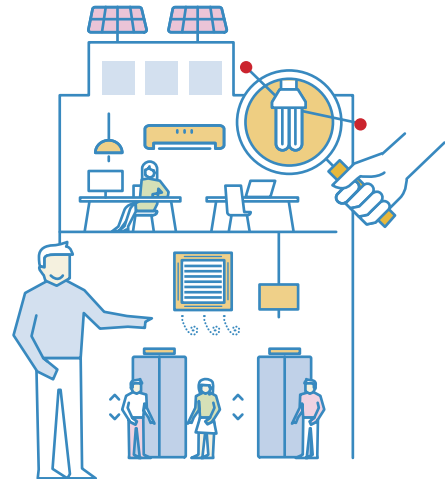


Building Energy Efficiency

Smart Power Building Fund subsidises building owners to enhance energy efficiency of communal building services installations.

Smart Power Energy Audit provides free energy audit services for non-residential customers to identify energy saving opportunities.

Recipients of the above may also apply for **Smart Power Loan Fund** to finance energy saving projects.



Renewable Energy

To support the local development of RE, HK Electric will purchase all the electricity generated from customers' RE power systems at **Feed-in Tariff** rates and provide **RE Certificates** for interested customers to purchase.

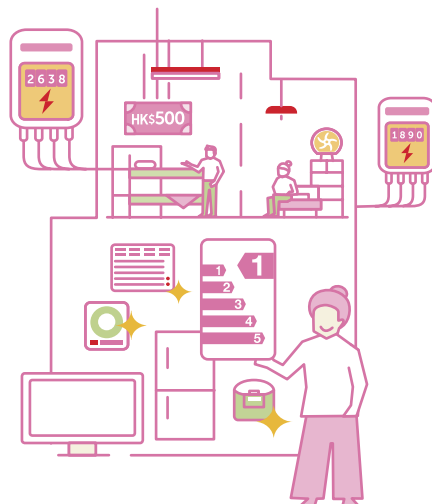
Green Education

Smart Power Education Fund supports Happy Green Campaign which promotes energy efficiency and low-carbon lifestyle among the public, in particular the younger generations through a wide array of activities.



Supporting the Needy

Smart Power Care Fund operates three programmes: Energy-efficient Appliances Subsidy, SDU Rewiring Subsidy and SDU Electricity Charges Relief to provide energy-efficient appliances, improve electrical safety and offer tariff relief for people in need.





CARE FOR OUR COMMUNITY

Care is one of our Core Values. We are proud to put our skills, resources and technical expertise to good use by lending a helping hand to those in need. Our strategy is to work closely with leading NGOs and local organisations on important social issues to deliver even greater impact.

Caring for the Elderly

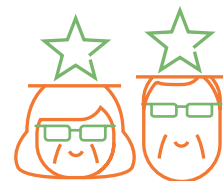
Our "CAREnJOY for the Elderly" programme, founded under a different name in 2008, works closely with all four District Councils on Hong Kong Island, the Rural Committees of Lamma North and Lamma South, as well as nine NGOs to care for the elderly who have limited or no access to community support.

In 2018, HK Electric volunteers and CAREnJOY Ambassadors joined District Council members to participate in home visits, helping deliver heavy and bulky daily necessities and carry out simple electrical safety inspections. We also hosted district-based electrical safety talks to share tips on safe and efficient use of electricity. During the year, we extended care to 2,118 single elders.

A Decade of Care and Joy

Reached out to

7,500+ single elders
on Hong Kong and Lamma
Islands through home visits,
carnivals, electrical safety
talks and gatherings



Recruited and trained

800+ elderly volunteers
to become CAREnJOY Ambassadors



~2,200 single elders gained access
to local support networks by joining
neighbourhood community centres as
encouraged by our Ambassadors



Electrical safety talks and gatherings plus home visits are the key elements of our CAREnJOY initiative.



The elderly drum up the joyous atmosphere celebrating the 10th anniversary of the CAREnJOY programme in 2018.

Golden Third Age

The University of 3rd Age (U3A) was co-founded by HK Electric and the Hong Kong Council of Social Services (HKCSS) in 2006 to promote lifelong learning and volunteerism among retirees in Hong Kong. The core principles of this programme are self-initiation, self-learning, self-teaching and self-administration.

In 2018, the U3A Network, comprising 51 self-learning centres throughout Hong Kong, conducted 978 courses and provided 16,289 learning opportunities. We also introduced a new Smart Power Ambassadors Training Programme, which is designed to inspire and empower U3A students to become advocates for environmental protection and energy efficiency in the community.



U3A leaders participate in a woodcraft workshop.



Our volunteers teach senior citizens to do finger exercise to prevent dementia.

Volunteering Services

The HK Electric Volunteers Team has been serving the Hong Kong community for 14 years since its revamp in 2004. While environmental protection and elderly care remain the key focuses of our services, we have also been diversifying our support into new areas such as visiting inmates of correctional institutions and supporting fund-raising for animal care.

In 2018, 1,255 HK Electric volunteers contributed 5,105 service hours to 99 activities. These included some long-established programmes such as monthly electrical inspections for single elderly in public housing and helping to remove Mikania – a weed known as “the plant killer” – from Hong Kong’s hillsides, as well as 13 newly introduced services such as the fund-raising cycling event initiated by Pok Oi Hospital and a dragon boat race organised by Southern District Council.

To ensure that our volunteers are best equipped with appropriate skills and knowledge to perform their duties, in 2018 they received training from the Society of Rehabilitation and Crime Prevention on how to interact with inmates, and on the causes and symptoms of dementia from the Aberdeen Kai Fong Association.

Number of Volunteers and Service Hours in 2018

Total

1,255 participants **5,105** hours



Elder Services

430 participants **1,476** hours



Green Services

121 participants **416** hours



Team Building & Training

69 participants **158** hours



Other Activities

635 participants **3,055** hours



Providing logistics support for the fund-raising Dogathon 2018 is one of the new services of HK Electric volunteers.



Volunteers collect unsold vegetables at the market for giving to the needy.

A Company that Gives

In 2018, HK Electric supported numerous charitable causes through sponsorships and donations. Our Centenary Trust financed 51 centres under the U3A programme and provided 70 scholarships for secondary school students with financial needs.

During the year, we worked with the Society for Community Organisation to reduce living costs and encourage energy conservation among tenants of the HKCSS Community Housing Movement by subsidising the purchase of 143 electrical appliances. We also donated 629 electrical appliances, including computer, equipment to underprivileged households through other donation programmes.

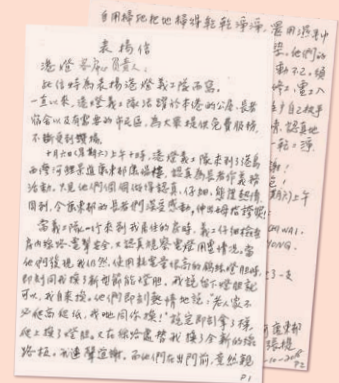


Cheung Tai
Beneficiary of our
electrical inspections
service

“Your care means more to me than I can say...”

Case
Story **5**

“They are like a
warrior team showing
professionalism,
dedication, focus and
most of all great care
for the needs of elderly
people like me.”



For any single elder living alone, it is always a delight to receive visitors, especially when they are volunteers giving a helping hand. Yet for Cheung Tai, the care and support provided by an HK Electric volunteer team far exceeded her expectations, and she in return also took extra mileage to show her appreciation.

Working with the Housing Authority, the HK Electric Volunteers Team conducts monthly electrical inspections to help ensure electrical safety at home for single elders. On a Saturday morning in October 2018, our volunteers visited Ms. Cheung's home at Sai Wan Ho. “After politely introducing themselves, the volunteers carefully inspected every electrical socket, electrical appliance and even my lamps to ensure they are safe for use. They then shared with me some safety tips, and explained how I could save money by switching to more efficient light bulbs. To my surprise, not only did they give me a new light bulb, they also made an effort to climb up a ladder and change it at once! I was so touched by their kindness and their passion to take an extra step.”

The volunteers' friendliness, care and professional attitude made such an unforgettable impression on Ms. Cheung that the next day she wrote a letter to the management of HK Electric:

“What impresses me the most, is the way the team brought their own equipment to tidy up after their work, leaving my place in a neat and tidy condition...”

...I really see how HK Electric Volunteers make a great contribution to our community, especially the elderly... your care means more to me than I can say...

...I would like to invite HK Electric's management team to recognise the wonderful work of these volunteers by calling out their names at your next recognition event for everyone's applause...”



Upon learning about this appreciation letter, the volunteers shared their reactions to Ms. Cheung's kind words:



Choi Kin-chung: "This kind of encouragement definitely prompts us to do more volunteer work in future."

Kwok Kwai-sum: "Ms. Cheung's letter is so touching, I have to show a copy to my Mum!"



Lee Chi-keung: "It is an extra bonus to receive such deep appreciation from the people we serve. It makes me feel so proud to use my professional knowledge to help those in need."

Wong Man-kin:

"To me, the recognition is a source of motivation."



HK Electric Volunteers Team

Since 2004, HK Electric Volunteers Team has partnered with the Housing Authority and Housing Society to offer free electrical inspections and simple rewiring services for elderly residents living in public housing. Under the arrangement, colleagues with the technical know-how are joined by other colleagues, volunteering several hours of their time once a month to extend care and ensure home safety for up to 70 elder households a year.

Other than utilising their professional skills to provide electrical inspections services, our employees contribute to a variety of other voluntary services ranging from elderly care and environmental protection to organisation of major sport and cultural events as well as mentoring of young people in order to care for different sectors of the society.