



Low-Carbon Blueprint for our Shared Future



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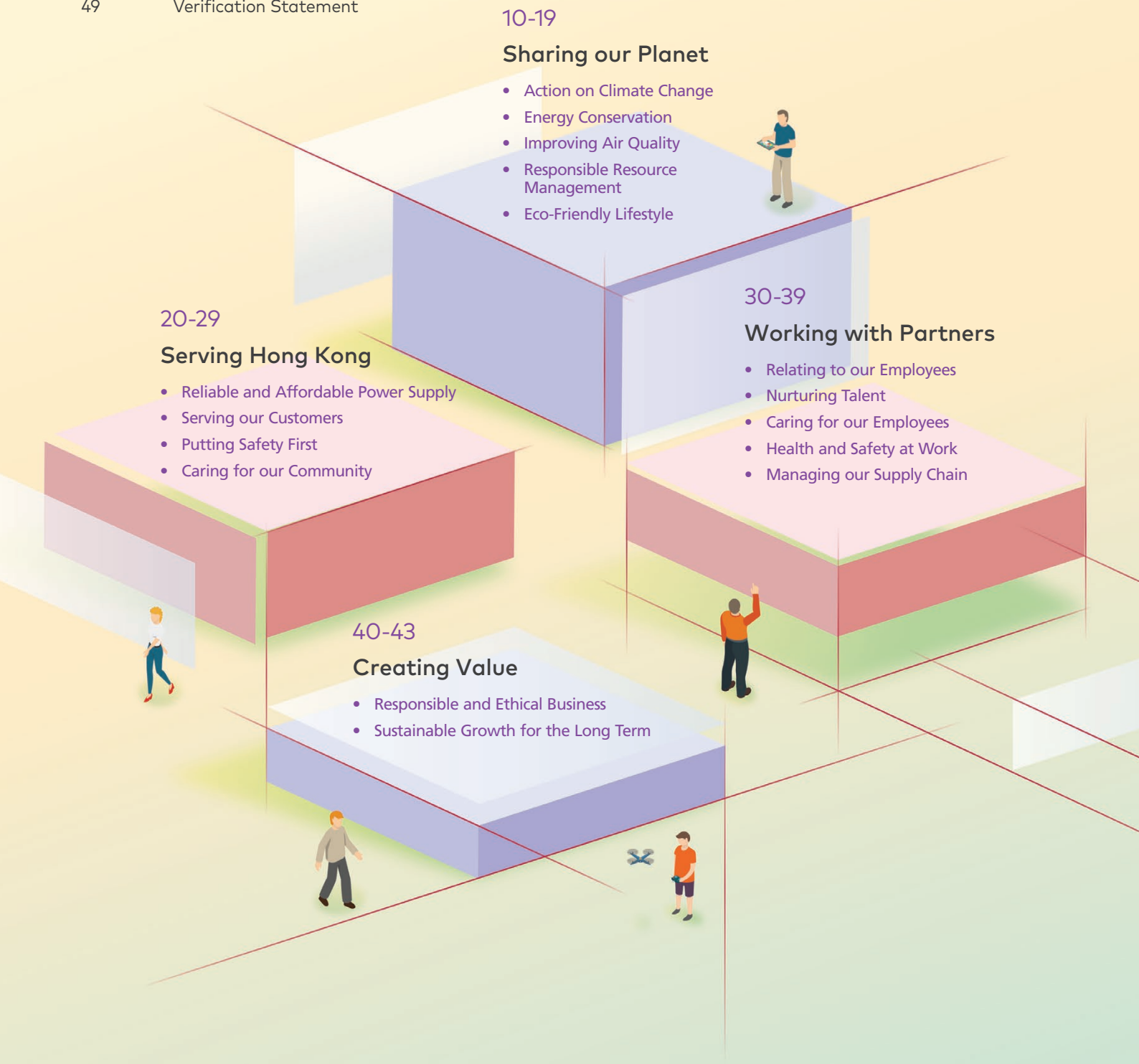
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About this Report

In this Sustainability Report 2017, we discuss our approach to sustainability, our performance during the year, and our plans and targets for the future. In addition to outlining our key challenges and strategies, we elaborate on the initiatives undertaken to implement our Corporate Social Responsibility (CSR) Policy.

This report has been endorsed by our CSR Committee and approved by the Boards of Directors.

In preparing this report, we have followed the Global Reporting Initiative's (GRI) Sustainability Reporting Standards and Electric Utilities Sector Disclosures, as well as HKEX's Environmental, Social and Governance (ESG) Reporting Guide. This report is prepared in accordance with the Core Option of the GRI Standards and also addresses a significant number of material disclosures required under the Comprehensive Option.

This report is designed to be read in conjunction with our other key reporting channels. Details about our policies and routine initiatives are available on our website, and more information about our governance practices and financial performance is covered in our Annual Report.

Please refer to our website to download the [HKEX ESG Content Index](#) and [GRI Content Index](#) for this report. These provide cross reference information for readers to locate individual disclosures specified in the HKEX's ESG Reporting Guide and GRI's Sustainability Reporting Standards, as well as information about how our initiatives correspond to the United Nation's Sustainable Development Goals. For some disclosures, specific information is reported directly in the [GRI Content Index](#).

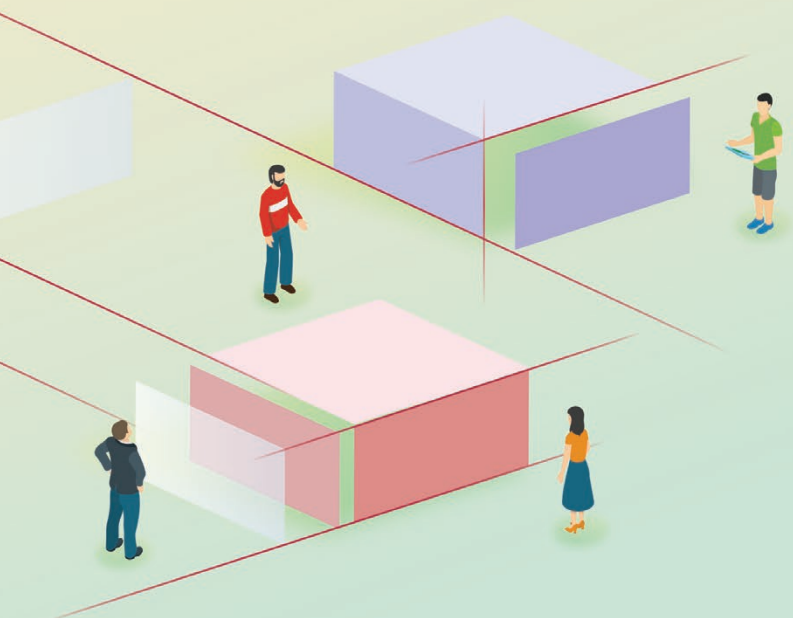
Issues for inclusion in this report were determined through a process of materiality analysis. More details including the results of our materiality assessment can be found in the Stakeholder Engagement chapter and [GRI Content Index](#).

Our data collection and analysis are based on relevant guidelines and standards, such as ISO 14064 for greenhouse gas emissions and local government guidelines for energy and carbon audits for buildings. All numerical data are presented as absolute figures unless otherwise specified. Due to rounding, some figures may not add up to the total.

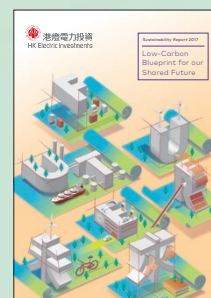
The suppliers referred to in this report are those with a direct commercial relationship with us including our contractors. Our workforce basically comprises full-time employees with an insignificant portion of part-time and temporary employees. Personnel of our contractors, with whom we have no direct employment relationship, are not considered part of our workforce. In this report, shareholders refer to holders of our Share Stippled Units.

In line with our commitment to being transparent about our sustainability impacts and to managing those impacts responsibly, we commissioned an independent third party to verify this report's contents and assure its credibility. The Verification Statement can be found at the end of this report.

We welcome your comments on this report and our sustainability performance, and we encourage you to send us your views by completing the online feedback form on our website www.hkei.hk.



The cover of this report shows how HKEI, as an energy supplier in Hong Kong, is working together with its stakeholders to implement a low-carbon blueprint for the sustainable development of the Group, the local economy and the community. We are achieving low-carbon power generation by increasing the use of natural gas and renewable energy, supporting the wider use of electric vehicles, and encouraging low-carbon living for a sustainable future.



About Us

HK Electric Investments, constituted in January 2014, is the first fixed single investment trust in Hong Kong focusing purely on the energy sector. Our Share Stapled Units, issued by the trust and HK Electric Investments Limited (collectively known as HKEI), are listed on the Main Board of the Hong Kong Stock Exchange. Our trust is structured to enable us to maintain a single-minded focus on delivering stable distributions to holders of our Share Stapled Units, while ensuring we have the potential for sustainable long-term growth.

Our main operating company, The Hongkong Electric Company, Limited (HK Electric), is run by a dedicated workforce of about 2,000 employees. HK Electric commenced operations in 1890, making us not only the first company to provide electricity in Hong Kong, but also one of the world's longest-serving power utilities.

Operating under the Scheme of Control Agreement (SCA) signed with the HKSAR Government, HK Electric is a vertically integrated power utility responsible for the generation, transmission, distribution and supply of electricity to about 577,000 customers on Hong Kong and Lamma Islands.

HK Electric operates a power station on Lamma Island, with a total installed capacity of 3,487 MW, supplying electricity to customers via an electricity network of about 6,400 km. For more information on HKEI and HK Electric, please visit our website www.hkei.hk.

For close to 128 years, we have been powering Hong Kong's economic growth by investing in the most appropriate technologies to support the provision of safe, reliable, clean and affordable electricity to both businesses and residential communities. As a responsible corporate citizen, we are committed to engaging our stakeholders and caring for the underprivileged in the community we serve.

2017 | HIGHLIGHTS

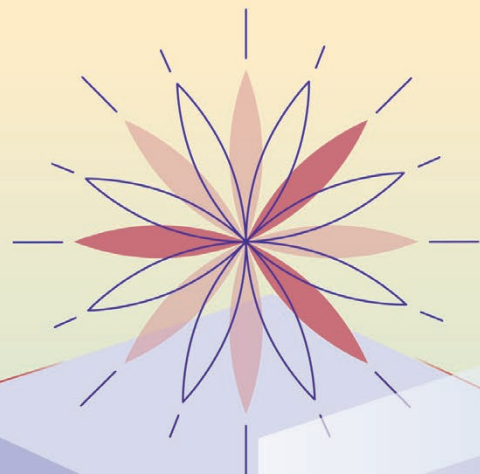
Signing of
new SCA

For the 21st consecutive year,
supply reliability
>99.999%

Having honoured our tariff
freeze commitment,
our 2018 tariff is even

16.6%
lower than the 2013 level

Won
Grand Award
of HKMA Quality Award



~34%

electricity output
from natural gas

2

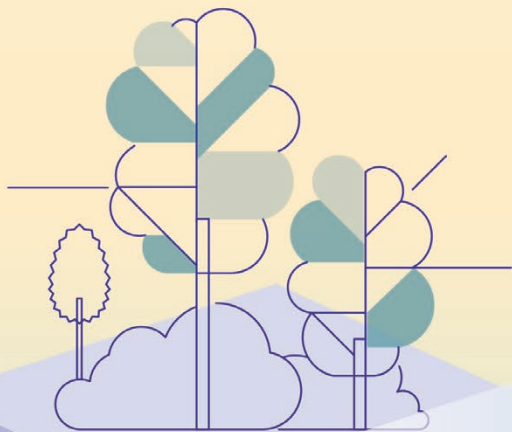
new gas-fired units
under construction

HK\$6.2 million

subsidy under
Smart Power Fund

~90,000

participants in
Smart Power Campaign



3

lost time injuries

18

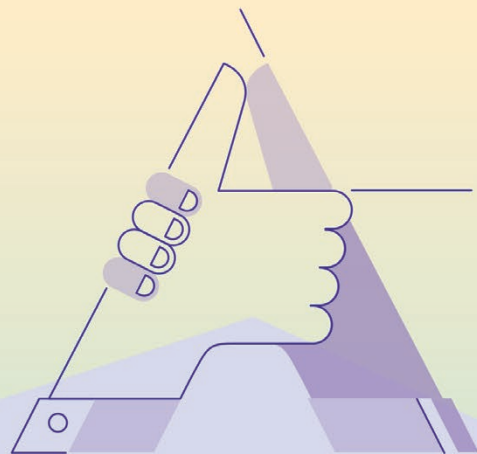
Achieved all
customer service
pledges

>2,000

elders through
CAREnJOY

>5,400

volunteering hours





A Word from our CEO

"As one of Hong Kong's major public utilities, HK Electric has an important role to play in supporting Hong Kong to face up to the reality of climate change. In doing so, we must all shoulder our collective responsibilities to protect the environment and to promote the well-being of current and future generations in this city that we call home."

Framework for a Sustainable Future

In April 2017, HK Electric concluded a new Scheme of Control Agreement (SCA) with the HKSAR Government for a 15-year period commencing 1 January 2019, following the expiry of the current SCA. The new SCA creates a stable and effective regulatory framework, which we believe will facilitate investment in essential infrastructure on a scale that is necessary for the continuous supply of safe, reliable, clean and affordable electricity for the city.

Since 1997, HK Electric's customers have been enjoying world-class supply reliability of higher than 99.999%. I am confident that under the new SCA, we will continue to deliver excellent electricity service, while playing an important role in Hong Kong's transition to a low-carbon city in line with the Government's Climate Action Plan 2030+.

Clean, yet Affordable, Energy

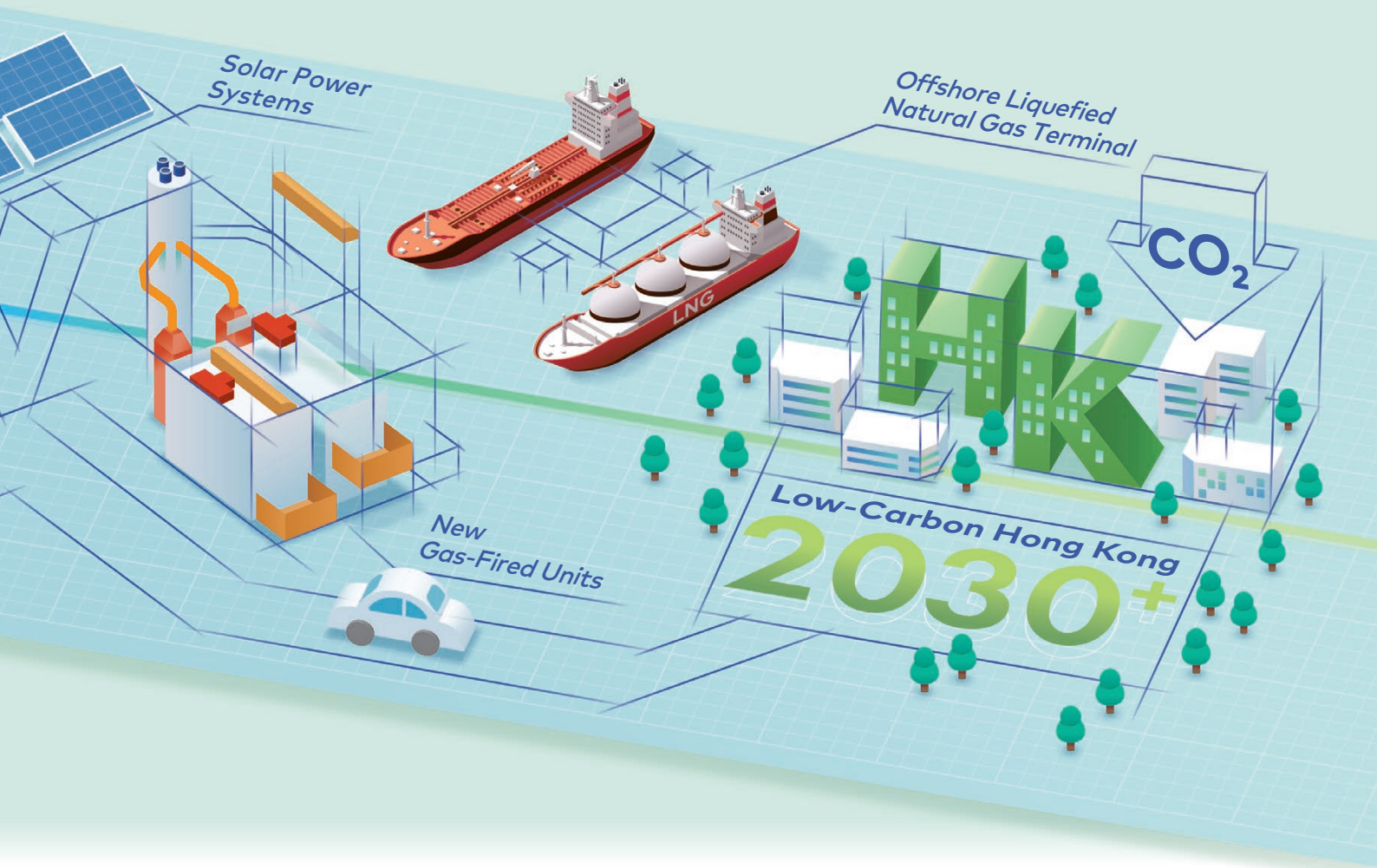
HK Electric's blueprint for clean energy calls for continued displacement of coal by natural gas as the primary fuel for power generation. We retired the oldest coal-fired unit, L1,

in 2017 and are on schedule to construct two new gas-fired units, L10 and L11, for commissioning in 2020 and 2022 respectively. By that time, the share of gas-fired generation in total power output from Lamma Power Station will increase to 55%. This will help further reduce emissions and contribute to lower carbon intensity and better air quality for Hong Kong.

We are mindful that switching from coal to natural gas will lead to higher fuel and operating costs, and we will strive to keep tariffs affordable for our customers. For example, we are working hard to secure an additional supply of natural gas on competitive terms by partnering with CLP Power to develop an offshore liquefied natural gas terminal that would allow us to gain direct access to the international market and thereby increase our bargaining power to negotiate reasonable prices for natural gas.

Sustainable Energy, Sustainable Society

As part of our blueprint, HK Electric is working closely with the community to promote sustainable development of our economy and society. Under the new SCA, we will be



introducing additional measures to encourage energy efficiency and conservation through funding and education programmes, as well as facilitating greater public participation in electricity generation from renewable energy sources.

For many years, we have been collaborating successfully with social service partners and green groups to help address social and environmental challenges in our city. We believe that community investment takes time and commitment to see results. Hence, we will maintain our focus on environmental education and satisfying the needs of Hong Kong's increasing ageing population through various community care and engagement programmes, all of which I have personally supported.

Rising to the Challenge

I am delighted by the various awards bestowed on HK Electric during the year, including the prestigious Grand Award of the Hong Kong Management Association Quality Award. The judging panel's assessment of our strong management systems, good corporate governance and

operational flexibility reaffirms my confidence in HK Electric and our prospects for achieving the vision to excel in the power business in Hong Kong. We will continue to strengthen our capabilities for innovation and strategic management so that we can face up to the challenges and seize the opportunities that lie ahead.

Finally, I wish to extend my thanks to our stakeholders – most importantly our shareholders, customers and employees – for their continued support. I invite you to read in this report about how we are doing to manage environmental impacts of our operations and create shared value for the community. I look forward to working together with all of you to implement our blueprint for a better and sustainable future.

Wan Chi-tin

Chief Executive Officer

March 2018

Stakeholder Engagement



Customers: Special tour for Customer Liaison Group to visit company premises to understand more of our operations.



Business Partners: Team building with contractors.

As a power utility, we understand that our operations have a direct impact on society, and we recognise that open and on-going communication with our stakeholders is important to our business. Through these dialogues, we strive to keep our stakeholders updated on the company's developments. At the same time, their expectations and views about our performance have due influence on our operations.

In 2017, we continued to communicate with our stakeholders in various ways, from day-to-day contact to large-scale seminars and public events. To support and offer professional advice on district matters, four of our employees sit on six district and welfare committees under various government establishments. We have also put in place specific engagement channels such as our Customer Liaison Group and our District Liaison Teams. We value all feedback that we receive, and always seek to strike a balance between the needs and expectations of our various stakeholder groups.



Employees: Representatives of our Joint Consultation Committee joining together for team building and training.



Local Communities: Joining the Hung Sing Birthday Parade in Ap Lei Chau.



Media: CEO addressing questions on tariff review.



Shareholders: Visit to Lamma Power Station.

To further enhance corporate communication through social media, we launched the HK Electric YouTube Channel in 2017.

The publication of our annual Sustainability Report is an important means of illustrating our sustainability performance to all stakeholders. To ensure the topics which reflect HKEI's significant economic, environmental and social impacts, or substantively influence the assessments and decisions of stakeholders, are covered in this report, we have conducted a materiality analysis to prioritise the relevant topics for reporting.

Details of the materiality analysis and additional information about how we engaged our stakeholders can be found in the [GRI Content Index](#) for this report, which is available on our website.

We invite you to read the chapters that follow about our management approaches and initiatives to address our material issues over the past year.



NGOs: Partnering with a green group to promote environmental awareness.



Education Sector: Spreading green messages to the younger generation through our Green Energy Dreams Come True competition.

Challenges and Strategies

In this chapter, we set out our key challenges for running a sustainable business, the factors affecting our performance, and the strategies we have adopted for addressing them. Financial challenges and related issues are discussed separately in our Annual Report.

Key Challenges

Regulatory Requirements and Stakeholder Expectations

Hong Kong's laws and regulations are constantly being reviewed and updated, exposing HKEI to legal and regulatory compliance risks. Our main operating company, HK Electric, must also comply with applicable laws and regulations, particularly those related to tightening emission allowances.

Additionally, we must anticipate and address the concerns of our stakeholders who expect us to follow the highest standards in areas such as service delivery, environmental protection, health and safety, as well as to operate with a high degree of transparency.

The Future of the Electricity Market

Our electricity business in Hong Kong is subject to a Scheme of Control Agreement (SCA) signed with the HKSAR Government. The SCA sets a permitted level of earnings for our business based principally on the average net fixed assets of electricity-related operations along with a broad spectrum of operational, performance and service requirements. The current SCA, expiring on 31 December 2018, was renewed in 2017 for a term of 15 years commencing on 1 January 2019.

The implementation of the 2014–2018 Development Plan under the current SCA, implementation details for the new SCA as well as the 2019–2023 Development Plan that requires the Government's approval, all affect our business and the interests of our stakeholders. Other key factors include the Government's policies on the fuel mix for electricity generation to improve air quality and combat climate change as well as its policies on competition in the electricity market over the medium to long term.

Fuel Supply

Coal and natural gas are the main types of fuel for our generating units at Lamma Power Station. Any interruptions or shortages in the supply of these fuels, or instances of sub-standard fuel quality, could significantly impact our electricity generation. Moreover, interruptions to gas supply could hamper our ability to meet legislated emission allowances. Volatility of global fuel prices can also undermine our ability to secure a reliable and high-quality supply of fuel at reasonable prices.

Economic Environment

While the global economy continues to strengthen with moderate expansion, the pace of US monetary policy normalisation, policy differences among major central banks and Brexit-related negotiations all contribute to uncertainty impacting the world economy and global financial markets. Meanwhile, growth of the Hong Kong economy is moderate, showing signs of improvement in exports and retail sales.

The prevailing environment of global economic uncertainty may adversely affect the business of our customers or cause a slowdown in economic activities in Hong Kong, which, in turn, may lead to a lower demand for electricity. As Hong Kong's electricity market is highly developed, with limited opportunities for growth, any economic slowdown could present a serious challenge to our business.



Principal Strategies

Our Vision, Mission and Core Values (VMV) guide us in how we face challenges at every level of our operations and are reinforced by our CSR Policy and corporate governance practices. We also take into consideration the views and concerns of our stakeholders. These form a framework under which our sustainability initiatives and activities are implemented.

VMV and CSR Policy

To fulfil our Vision which is to excel in the power business in Hong Kong, our Mission is to enhance shareholder value, deliver excellent customer service and supply reliability, nurture a harmonious and engaged workforce, care for the environment and community, and drive for efficiency in our operations.

Our efforts to achieve this Mission are supported by our Core Values: Pursuit of Excellence, Integrity, Respect and Trust, and Caring. Our CSR Policy underlies our commitment to operating in a responsible manner and meeting the long-term energy needs of the community. During the year, a number of revisions were made to the Policy, putting greater emphasis on “transparency”, “innovation” and “engaged workplace”.

The implementation of our CSR Policy is overseen by the CSR Committee, chaired by the CEO and comprising senior management representatives. The Committee is responsible for formulating strategies, integrating CSR initiatives into our operations, and monitoring and improving our CSR performance. It also benchmarks our performance against industry best practices, promotes CSR among our employees and business partners, and enhances stakeholder engagement.

Guided by our VMV and CSR Policy, we endeavour to be a good corporate citizen supporting the sustainable development of our community; a world-class energy supplier providing a safe, reliable, affordable and environmentally friendly electricity supply; and, an employer of choice for those who wish to pursue a fulfilling career in the energy sector.

Corporate Governance

At HKEI, we are committed to upholding the highest standards of corporate governance. We have an Enterprise Risk Management framework to identify, assess, mitigate and monitor key business, financial, operational and compliance risks. We also have a Crisis Management Plan to deal with emergencies that could damage our long-term business plans. Further details about our corporate governance can be found in the Creating Value chapter of this report and our Annual Report.

Managing Key Challenges

In order to meet legal and regulatory requirements, we monitor changes in laws and regulations and ensure compliance in all relevant functional units. This is achieved through our Compliance Framework, which is overseen by our Compliance Committee chaired by the CEO. Comprehensive management systems are also in place to govern environmental, health and safety, and service quality issues. We also have various communication channels for understanding and addressing stakeholder concerns. For details on how we engage our stakeholders, please refer to the Stakeholder Engagement chapter of this report.

Factors that could affect the electricity market are regularly reviewed through an established mechanism. We also exchange views with stakeholders on the electricity market and related regulatory issues.

To secure a reliable and stable supply of quality fuels at reasonable prices, we have developed a fuel supply strategy and a fuel quality control system.

In an uncertain economic environment, HKEI adopts prudent and pragmatic strategies in financial management and capital investment. We also strive for efficiency and cost effectiveness in all aspects of our operations to enhance our financial performance.



As a public utility, HK Electric has a social responsibility to safeguard the environment. We are investing continuously in new technologies and initiatives to minimise the impacts of our operations.

Our commitment to protecting the environment is articulated in our Environmental Policy, the implementation of which is overseen by the Environment Committee. Environmental considerations are integrated into all areas of our business through comprehensive environmental and energy management systems conforming to ISO 14001 and ISO 50001 standards. We evaluate the effectiveness of our environmental management programmes with reference to specific and measurable targets, and strive for continuous improvement.

HK Electric cannot achieve its environmental objectives without the support of its many stakeholders. We work with the Government, academia, professional engineering and non-governmental organisations, green groups, customers, students and the general public to address issues of shared concern.



Sharing our Planet

Action on
Climate
Change

Energy
Conservation

Improving
Air Quality

Responsible
Resource
Management

Eco-
Friendly
Lifestyle



Action on Climate Change

In response to international agreement on decisive actions to combat climate change, HK Electric is taking a proactive approach to reduce greenhouse gas emissions, commonly known as carbon emissions.

We also acknowledge the global consensus on avoiding the worst effects of climate change by keeping global warming within 2°C of the pre-industrial level. In November 2017, HK Electric established a new target for reducing carbon emissions per unit of electricity generated by 30% in 2022 compared with the level in 2005. This target has been recognised by the Science Based Targets initiative, a global partnership encouraging organisations to set scientific targets compatible with the “2°C” scenario.

Displacing Coal with Natural Gas

Natural gas is a cleaner fuel than coal and produces fewer carbon emissions in power generation. Phasing out coal-fired plants and replacing them with natural gas-powered generation is essential for helping Hong Kong achieve the Government’s targets for reducing carbon emissions by 2020 and 2030.

In 2017, power generated from natural gas comprised about 34% of our total power output, and the carbon intensity of our electricity sold was 0.79 kg CO₂e/kWh. By comparison, in 2005 before the introduction of any natural

gas-fired generation at Lamma Power Station, the carbon intensity of our electricity sold was 0.93 kg CO₂e/kWh.

During the year, we retired our oldest coal-fired unit, L1, and continued to make good progress with the construction of two new gas-fired units, L10 and L11. These units will feature advanced efficiency-enhancing technology producing about 50% fewer carbon emissions than our existing coal-fired units.

The share of natural gas-fired generation in our total power output is increasing. It is expected to reach 50% in 2020 with the commissioning of L10, and 55% in 2022 when L11 is put into operation. Timely implementation of these gas-fired projects will contribute towards the Government’s short-term carbon reduction target for 2020.

We plan to continue displacing coal with natural gas in supporting the Government’s longer-term carbon reduction target for 2030. To ensure the commercial and operational viability of this strategy, we are partnering with CLP Power, the other local power company, to develop an offshore liquefied natural gas (LNG) terminal using Floating Storage and Regasification Unit (FSRU) technology. This project, currently at the Environmental Impact Assessment stage, would help to secure a sufficient and competitive supply of natural gas. Subject to government approvals, we anticipate that the new terminal can be constructed for commissioning by the end of 2020, at the earliest.



New gas-fired generating units under construction at Lamma Power Station.

Case Story

Nanotechnology Enhances Solar Power Generation

In 2017, the power generation efficiency of some solar panels at Lamma Power Station increased by as much as 2%, following successful implementation of a pilot study to test the effectiveness of a new self-cleaning coating that was invented by a team at The Hong Kong Polytechnic University.

When the special coating is applied to the surface of the solar panels, nano-sized titanium dioxides (TiO₂) convert organic compounds into harmless gases through a process known as photocatalysis. Inorganic substances also become effaceable, so they are easily washed off by rain water.



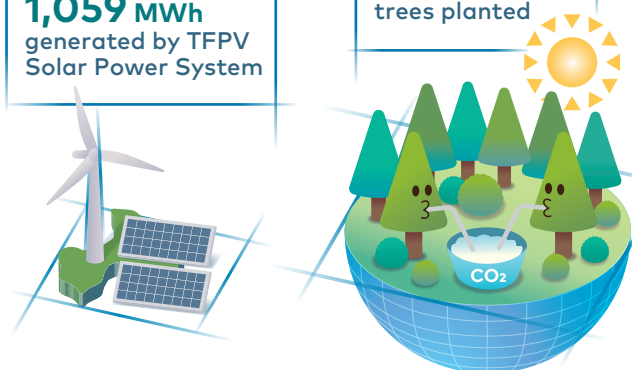
A Role for Renewable Energy

We are keen to support the use of renewable energy (RE) and are operating one of Hong Kong's largest commercial-scale solar power systems and the city's first and only commercial-scale wind power station – Lamma Winds.

2017:
825 MWh
generated by
Lamma Winds

1,059 MWh
generated by TFPV
Solar Power System

1,570 tonnes
CO₂ avoided
or
68,000
trees planted



More widespread adoption of RE technologies in Hong Kong is constrained by limited space and high per unit investment costs. Nevertheless, we are committed to finding innovative and practical ways to overcome these challenges. In 2017, the Government gave the go-ahead for an in-depth study of a new solar power system to provide ancillary power for residents on Po Toi Island, Hong Kong's southernmost outlying island. By reducing reliance on Government-owned generators, the project will reduce the amount of diesel fuel required to be transported to and consumed on the island.

Resilience to Climate Risks

According to regional forecasts, the Pearl River Delta region will be directly impacted by rising sea levels, higher temperatures, more erratic rainfall, and potentially more powerful storms as a result of climate change. We are continuously building up our resilience to climate-related threats to ensure the reliability of our service. In July and August of the year, though several typhoons severely impacted Hong Kong, they did not undermine the security and reliability of our power system.

The key elements of our strategy are to assess the risks to our business, adopt resilient designs, conduct regular operational reviews, and implement timely enhancement measures. High ambient temperatures, for example, increase the risk of failure of power plant components and electricity network cables. We closely monitor the conditions of critical plant components and important cable sections, and carry out regular reviews to ensure appropriate enhancements are completed.

In 2017, we continued our existing programme to enhance reliability and increase cable capacity under high temperature conditions by converting 11-kV open-ring distribution feeders to 22-kV closed-ring feeders.

Our transmission network, comprised almost entirely of underground and submarine cables, is largely protected from inclement weather. We have anti-flooding systems in place at Lamma Power Station and in our coastal transmission and distribution stations, as well as a typhoon emergency team on standby to undertake emergency maintenance. Our System Control Centre is equipped to manage abnormal operating conditions and to apply remedial measures in real time.

Throughout our operations, we have contingency plans and emergency procedures in place that are subject to frequent practice drills and regular reviews to ensure they remain effective and up-to-date.

Energy Conservation

Energy efficiency and conservation (EE&C) is integral to the Government's Climate Action Plan 2030+, which calls for concerted efforts by the whole community to achieve carbon and energy savings. Under the SCA, HK Electric is well positioned to educate customers and the public about the benefits of energy conservation, and we have implemented various measures on our own premises to set examples for industry benchmarking.

We also empower our customers with information to make better choices. Our electricity bills for residential customers contain data on electricity use, including monthly per capita consumption and carbon dioxide emissions per unit of electricity consumed. We offer a load profile enquiry service for non-residential customers to help them make better use of energy as part of their overall business strategy.

Help for Building Owners

The vast majority of Hong Kong's energy-saving opportunities arise in our built environment. Our policy is to engage regularly with various stakeholders in the community, including building owners, district council members and property managers, to promote EE&C.

In 2017, we carried out more than 50 free energy audits for non-residential customers. These audits not only identify practical measures for energy saving, but also qualify eligible customers to apply for the Energy Efficiency Loan Scheme offered by collaborating banks for carrying out improvement works.

For owners of residential buildings, subsidies are available through our Smart Power Fund on a 50/50 matching basis to implement projects that will improve the energy efficiency of existing building services installations for communal use. These projects often involve the installation of more energy-efficient lift driving systems, public lighting and air-conditioners.

To encourage more extensive energy efficiency improvements or upgrades under the Smart Power Fund, we have doubled the upper limit of our subsidy from HK\$200,000 to HK\$400,000 from January 2017 onwards. Under special circumstances, funding of up to HK\$500,000 is also available for highly impactful projects.

During the year, we approved 20 Smart Power Fund applications amounting to HK\$6.2 million. Since the inception of the Fund in June 2014, a total of 49 applications have been approved.

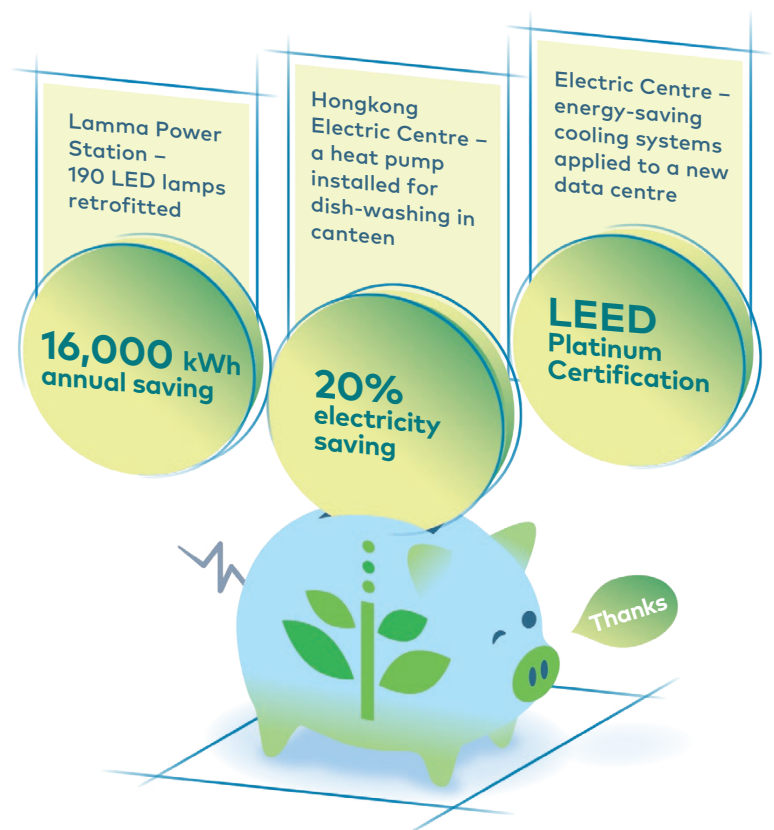
Energy Savings@HK Electric

We support the Government's Energy Saving Charter and 4Ts (Target, Timeline, Transparency and Together) Charter to achieve energy savings on our premises. We are committed to maintaining an average indoor temperature between 24–26°C during summer, turning off electrical appliances and systems when not in use, and engaging our employees on energy-saving practices that are underpinned by objective targets and timelines.

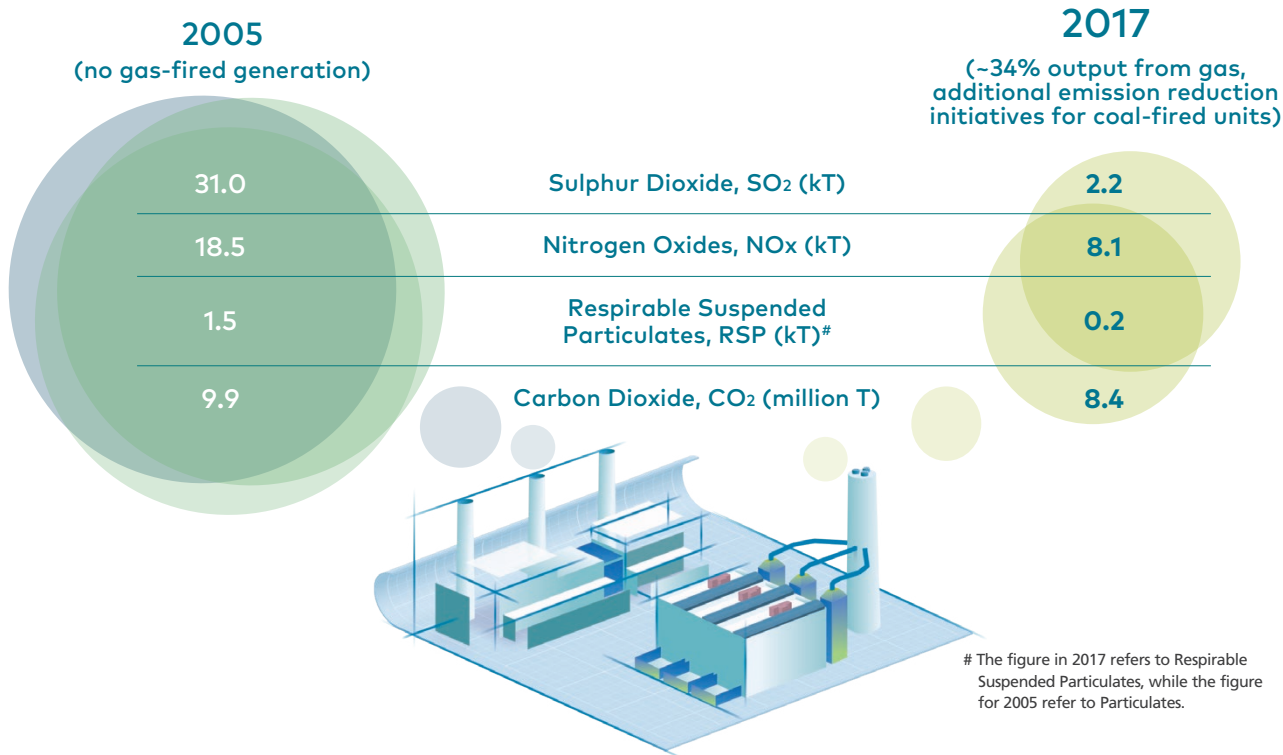
In recent years, we have received awards for environmental excellence, including Energywise and Carbon Reduction Certificates under the Hong Kong Green Organisation Certification Scheme, and platinum awards for our buildings under the Charter on External Lighting organised by the Environment Bureau.

We conduct regular carbon and energy audits of our main buildings to evaluate opportunities for further energy savings. In 2017, we followed up on recommendations from previous audits by installing additional energy meters in our main buildings. Enhanced monitoring of energy consumption patterns will help us fine-tune our energy-saving plans.

We are also in the process of systematically replacing aged chillers in our office buildings with more energy-efficient models. Having completed chiller enhancement projects at Electric Centre and Electric Tower in previous years, during 2017 we initiated a similar project at our headquarters, Hongkong Electric Centre. We aim to replace all aged chillers in the building in phases in 2018.



Emissions at Lamma Power Station



Improving Air Quality

Air pollution in the Pearl River Delta region impacts the health and well-being of all local residents. In Hong Kong, locally produced air emissions come largely from power stations and traffic.

Emissions at Lamma Power Station

HK Electric is progressively reducing emissions in line with Hong Kong's Air Quality Objectives. We operate a network of air quality monitoring stations to continuously monitor the impacts of our operations on ambient air quality, and we publish air quality monitoring statistics on our website.

At Lamma Power Station, we apply technologies such as flue gas desulphurisation plants, low-nitrogen-oxide combustion systems and electrostatic precipitators to limit the emissions of sulphur dioxide (SO₂), nitrogen oxides (NO_x) and respirable suspended particulates (RSP), within the emission allowances specified by the Government.

As far as possible, we procure low-sulphur coals with low ash content to help control emissions of both SO₂ and RSP. In 2017, low-sulphur coals accounted for about 28% of the total volume of coal purchased.

By displacing coal with natural gas and RE in power generation, our response to climate change will also contribute to better air quality in Hong Kong.

In 2017, we worked closely with the Government to agree on a set of tighter emission allowances for 2022 onwards. To help us achieve these objectives, we plan to adopt advanced emission reduction technologies for new power generation investments. For instance, both of our new gas-fired units, L10 and L11, will feature Selective Catalytic Reduction and advanced combustion systems that can reduce emissions of NO_x by as much as 90%.

We anticipate that when both new units are in operation, emissions of SO₂, NO_x, and RSP from Lamma Power Station will decrease by at least 75–90% compared with the 2005 levels.

Drive EVs • Charge Easy

We believe that widespread adoption of electric vehicles (EVs) can play an important role in improving roadside air quality in Hong Kong because they produce zero emissions at source.

EV technology continues to advance, with new models coming on the market exhibiting longer driving ranges and greater reliability combined with lower prices. We anticipate that the number of EVs on the road in Hong Kong will continue to rise if the availability and distribution of charging facilities can meet demand.



HK Electric continues to power the Formula E Hong Kong E-Prix, and arranges student ambassadors to join a preview at the pit-lane.

During the year, we launched three new multi-standard quick charging stations and upgraded four existing standard charging stations to dual-mode chargers supporting AC quick charging. Currently, we have 13 public charging stations covering every district on Hong Kong Island. Under normal traffic conditions, EV drivers can access one of our charging stations within 15 minutes' driving distance on Hong Kong Island, and they will continue to enjoy free EV charging services until the end of 2018.

Case Story

Giving Retired EV Batteries a New Lease of Life

EVs are widely recognised as the environmentally friendly choice for road transport, but it is important to mitigate impacts associated with the disposal of EV batteries.

In 2017, engineers of HK Electric came up with two innovative solutions to win the first and third prizes in the open group category of an international competition entitled "Second Life for Retired Batteries from Electric Vehicles" organised by the Environment Bureau.

The winning proposal arose from our on-going study to install a solar power system on Po Toi Island. Members of our Projects Division worked with researchers from the Department of Electrical Engineering of The Hong Kong Polytechnic University to create a hybrid battery energy storage system

Our Low Carbon App and EV mini website provide real-time information to the public about the occupancy status of all 13 charging stations. A pre-booking system for quick charging facilities at our former Operational Headquarters in Ap Lei Chau is now available on a trial basis through the Low Carbon App.

Also in 2017, our EV service team handled 562 enquiries and arranged 84 on-site inspections, providing technical advice to assist residential and commercial building owners in installing EV charging facilities. A total of 26 AC quick charging facilities were installed in various buildings during the year.

We continue to invest in greening our own vehicle fleet by replacing conventional vehicles with EVs. At the end of 2017, we operated 114 EVs representing 40% of our vehicle fleet. We also purchased our first electric bus for commuting within the bounds of Lamma Power Station.



combining new batteries with retired EV batteries. This innovation will not only make the Po Toi solar system feasible despite limited usable space, but will also help preserve the scenery of the island.

The Second Runner-up was a team from our Transmission and Distribution Division with an advanced battery management system that deploys retired EV batteries to provide back-up energy storage similar to an uninterruptible power supply. The system reduces the impact of voltage dip and enhances power supply reliability. We plan to implement a trial using about 130 retired EV battery cells to further investigate the viability of this solution.

Responsible Resource Management

In line with our Environmental Policy, HK Electric strives to ease the environmental impacts of our business by optimising the consumption of resources and reducing waste. We engage our employees on environmental issues and strive to cultivate a 4R-culture – Reduce, Reuse, Recover and Recycle – throughout our organisation.

Water Resources

At Lamma Power Station, we manage our water resources responsibly by following the best practices for our industry. In 2017, about 112,000 m³ of rain water and plant effluent was collected and reused to reduce our overall fresh water consumption.

As part of the on-going development of the new L10 and L11 gas-fired plants, we have installed wastewater storage and treatment facilities to recycle and reuse wastewater produced during bore piling.

In August 2017, we also began construction of a new demineralisation plant that will apply reverse osmosis and electro-deionisation technology to produce pure feed water for boilers of our generating units. The new technology will drastically reduce the consumption of hazardous chemicals, including sulphuric acid and caustic soda used in conventional ion-exchange demineralisation processes.

Waste Management

Our business produces various forms of waste, all of which we manage and dispose of responsibly in compliance with relevant laws and regulations. Ash and gypsum, two by-products from coal-fired power generation, are the main types of non-hazardous waste generated by our operations. These materials are supplied to third parties as inputs for industrial use. We also generate hazardous wastes, such as waste oil, which are recycled or disposed of by licensed contractors under a trip ticket system.



Case Story

One Man's Waste Becomes Another Man's Treasure

We believe that it is important to engage our employees and their families on environmental issues by encouraging them to adopt environmentally responsible practices in all aspects of their lives at home and at work.

In 2017, we introduced two initiatives to promote reuse of unwanted items. The first is an information platform that matches business units seeking to dispose of office furniture with other business units who can make use of the second-hand items. The second is an online platform which allows employees to pass on their unwanted personal belongings, such as clothes, books or electrical appliances that are still in good condition, rather than throwing them away. Colleagues can access a shared database to preview and select items they are interested in.

Our canteens, which prepare more than a thousand meals for our employees every day, make use of an advance meal booking system to reduce food waste. We practise waste separation and use food-waste eliminators to minimise the volume of food waste that is disposed to landfill sites. Surplus food is donated to Food Angel, which is a well-recognised Hong Kong charity that supports people in need.

We go beyond regulatory compliance in our waste management practices by working with the Government and non-governmental organisations (NGOs) on various recycling initiatives. In recognition of our efforts, we have received Wastewi\$e Certificates under the Hong Kong Green Organisation Certification Scheme, and food-waste management awards from several NGOs. In 2017, we were also invited by the Green Council to share our experience on food-waste management with hotels and restaurants.

Biodiversity

We are committed to conserving the ecological habitat of Lamma Power Station and the surrounding environment, and we have a programme in place to nurture native species of trees and shrubs and to attract local wildlife.

We pay close attention to safeguarding biodiversity in the course of developing new projects, such as the forthcoming improvement of Lamma Power Station Navigation Channel and the proposed offshore LNG terminal. To ensure conservation of the marine ecology in the area of the navigation channel, we are planning to carry out a marine ecological and fisheries baseline review in 2018.



Lamma Power Station is home of many bird species, including this beautiful Grey-backed Thrush.

Case Story

Outstanding Ambassadors Job Shadowing at HK Electric

We believe that one of the best ways to help students with life-planning is to offer them on-the-job experience. In early 2017, three students who attained outstanding achievements in our Happy Green Community Ambassadors programme in 2016 became HK Electric environmental engineers for 1.5 days.

The students were greeted by Mr. Wan Chi-tin, who shared his own experience of starting out as a young engineer and rising to become the Managing Director of HK Electric. Over the course of the day, the students did some rising of their own by climbing up the 110-m chimney of a gas-fired generating unit at Lamma Power Station to check the emission monitoring equipment. They also collected leaves and water samples, and used laboratory equipment to conduct analyses.

Eco-Friendly Lifestyle

To support sustainable development, HK Electric advocates the smart use of energy through green educational programmes, and enhances the environmental awareness of the public by promoting the benefits of an eco-friendly lifestyle.

Education and Awareness

We set aside HK\$2.5 million each year for an Education Fund to promote smart and efficient energy use. Our Smart Power Campaign, launched in 2003, is an anchor programme of the Fund targeting young people.

In 2017, the focus of the Campaign combined life planning with environmental education under the theme "Living out your Happy Green Life". Through different programmes, youngsters were encouraged to develop green attitudes towards their lives. The Government also appreciated our approach and invited us to share our experience in a symposium on "Life Planning" organised by the Education Bureau.

Through our Happy Green Schools network, which had been expanded to 380 member schools, we continued to offer various Other Learning Experience (OLE) activities to students.

The Happy Green Community Ambassador programme, in 2017, provided training to more than 50 secondary school students who in turn acted as ambassadors at roving exhibitions, attracting more than 3,500 visitors.



Reporting back on their impressions of the job shadowing experience, the ambassadors agreed that the work of an environmental engineer is not as easy as they had imagined, but very meaningful. They were grateful for the opportunity to learn more about themselves and the important work that goes into environmental protection when producing electricity.

In 2017, we continued to organise our Green Energy Dreams Come True programme, an annual competition that gives local secondary schools the opportunity to practise project management and presentation skills, with technical support from our engineers. Twelve teams received up to HK\$50,000 each to put their green ideas into practice. The winning team created a playground model to teach young children how kinetic energy works, and another notable project succeeded in generating electricity from green leaves.

Promoting Hong Kong's Eco-Heritage

2017 marked the 12th year of Green Hong Kong Green (GHKG), a programme co-organised by HK Electric and The Conservancy Association that conducts guided tours on Hong Kong and Lamma Islands to raise awareness of local eco-heritage resources.



Eco-tour leaders complete the training for the new eco-heritage route "Wan Chai Kaleidoscope".

In recent years, the programme has taken on a new approach by introducing eco-heritage routes in urban areas that are shorter and more easily accessible. Following the success of our first urban route in Western District launched in 2016, we rolled out a second urban route in Wan Chai in 2017 featuring various eco-heritage treasures, including the historical site of Hong Kong's first power station, which was operated by HK Electric.

During the year, a total of 97 tours of the 10 eco-heritage routes were organised for around 1,300 participants. Night safari tours, available only in the summer months, continued to be the most popular because participants could enjoy close encounters with animals and insects that are rarely seen during the day.

The GHKG App, which features information about all 10 eco-heritage routes, was downloaded more than 8,800 times during the year.

Promoting Eco-Quality Kitchens

Hong Kong people are increasingly conscientious about the environmental impacts of kitchen appliances, and are enthusiastic to learn about products and techniques that are both green and efficient.

For customers who have joined our Eco-Quality Home programme, we organised several activities in 2017, including electric cooking demonstrations and a visit to the Climate Change and My Smart City Experience Centre at the Zero Carbon Building, with interactive exhibits about eco-smart living and smart cities.

For food industry professionals, the benefits of working with electrical appliances in commercial kitchens include enhanced production efficiency and food quality, energy and cost savings, improved health and comfort for employees, and lower fire risk. We work extensively with catering associations and commercial kitchen equipment suppliers to promote these benefits. One popular initiative is the Eco-Chef Training Programme, which we organise in partnership with catering businesses and The Salvation Army.

Support for Green Causes

HK Electric supports a range of environmental campaigns, such as WWF's Earth Hour, Green Walk organised by the World Green Organisation, and Clean Up the World in Hong Kong organised by Green Power.



The Smart Power Campaign mascot proves popular at the Zero Carbon Fun Fair organised by the Environmental Campaign Committee.

Similar to previous years, we hosted a one-month campaign in June to support United Nations' World Environment Day. We invited our colleagues to make low-carbon pledges about what they eat and wear and how they live and move around. We also identified ways for them to donate and recycle unwanted items such as clothes, books and appliances.

Serving Hong Kong





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 21st 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.

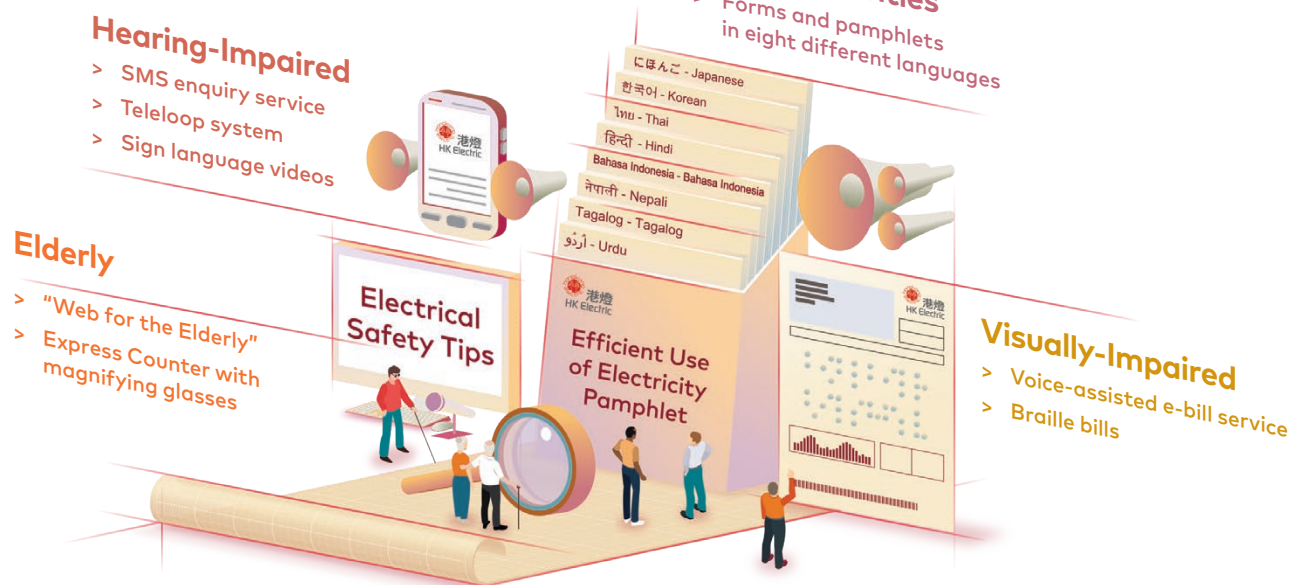
We provide a comprehensive range of services to SMEs, including the "One-Stop Service for SMEs" webpage that provides them with easy access to information and support about business start-up and energy management.

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.

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.

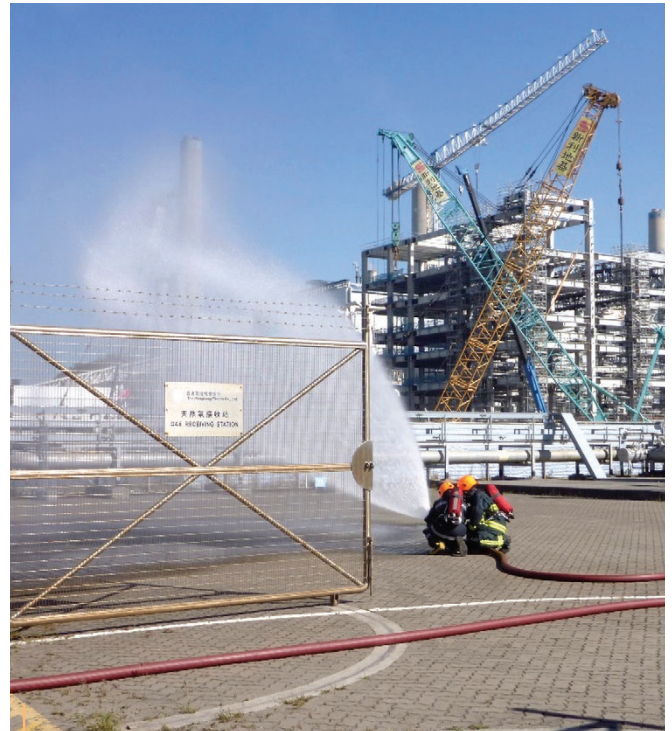
We encourage customers who depend on our power supply to operate life-support equipment to register with us, so we can take extra care of their special power supply needs and provide them with advance notification of planned power supply suspensions. We also develop contingency power supply plans with 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.

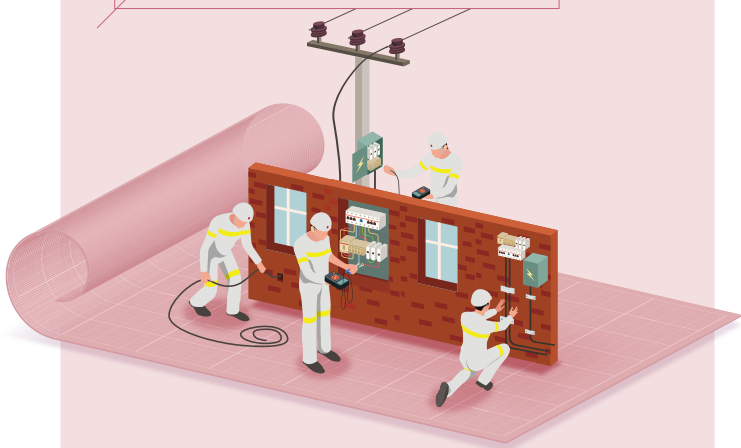
Safe Electricity Use

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 3rd 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.

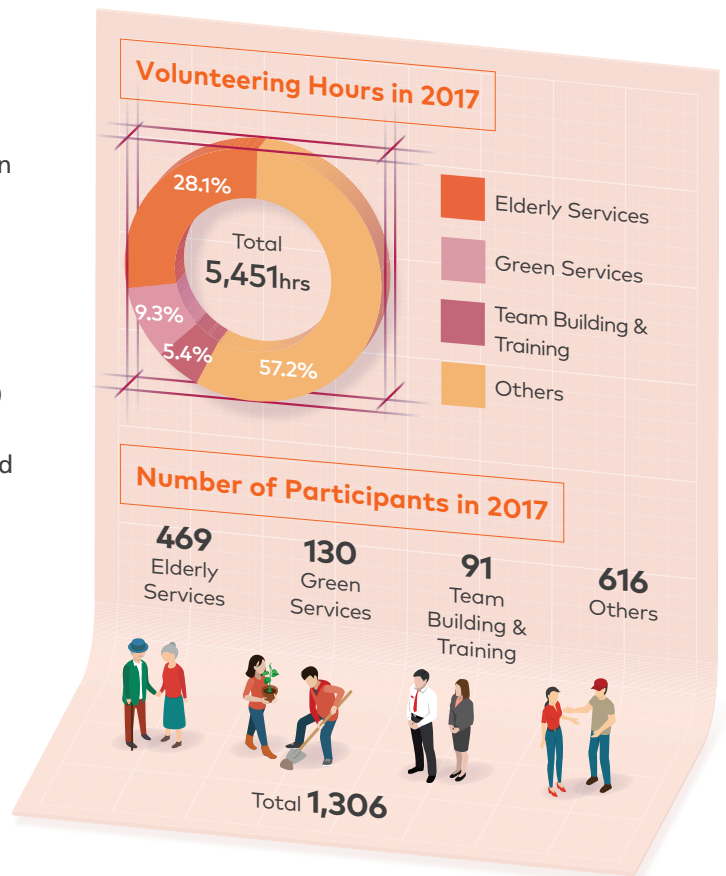
To appeal to the interests of more colleagues, we have diversified our volunteering programme into new areas, such as helping to reduce food waste by re-distributing vegetables from markets to elderly people in need and providing mentoring support to secondary students. All 19 of the new services introduced 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.



Working with Partners

- Relating to our Employees
- Nurturing Talent
- Caring for our Employees
- Health and Safety at Work
- Managing our Supply Chain



CSR

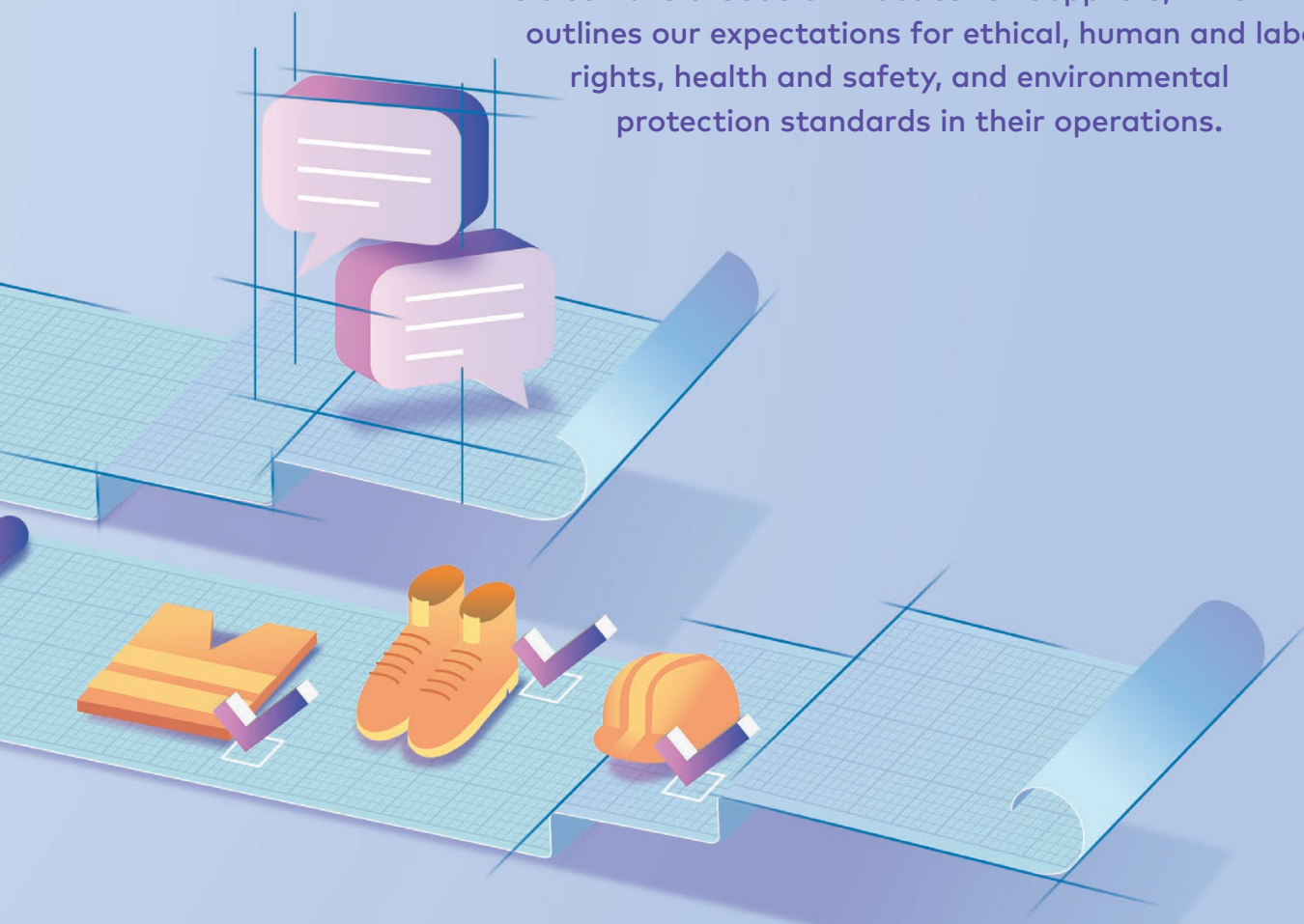


We work closely with our employees and suppliers to serve Hong Kong in a sustainable and responsible manner. Among our main responsibilities, we have an obligation to take care of our employees and to encourage our suppliers to share our core values, particularly with regard to health and safety at work.

Our human resources strategy "SHINE" – Synergy, Holistic development, Ideal workplace, Nurture future leaders and Excellence – is overseen by our Human Resources Steering Committee chaired by the Managing Director. We pride ourselves on being an employer of choice that enables our people to fully develop their personal and professional potential.

Workplace health and safety considerations take a high priority in all of our business decisions. Underlined in our Health and Safety Policy, and overseen by our Health and Safety Board, also chaired by the Managing Director, our primary objective is to achieve an accident-free operation. Our safety management systems are in line with the OHSAS 18001 standard, and we strive to make continuous improvements in our safety performance.

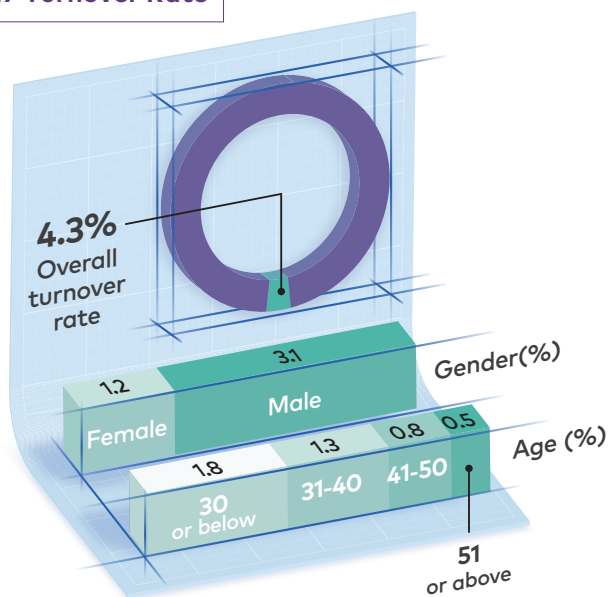
We also have a Code of Practice for Suppliers, which outlines our expectations for ethical, human and labour rights, health and safety, and environmental protection standards in their operations.



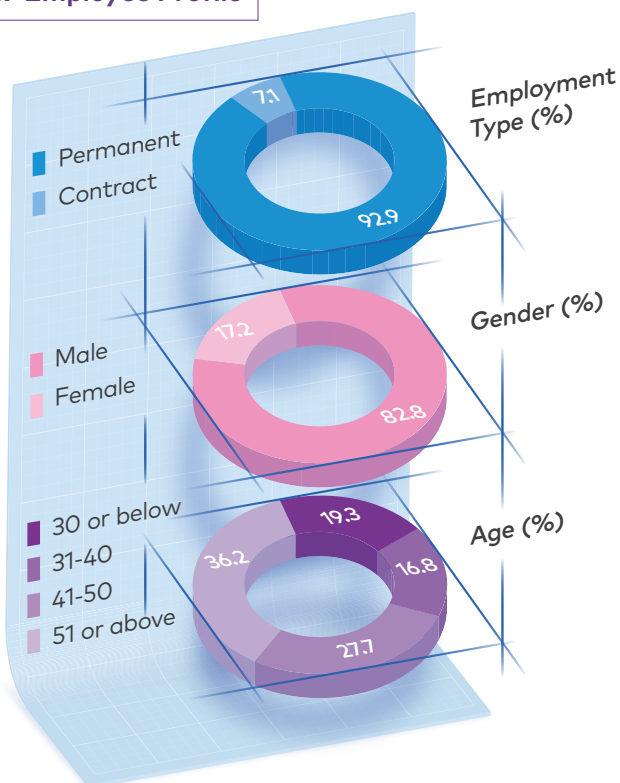
Relating to our Employees

We are proud to be an employer of choice that treats our people fairly and rewards them appropriately. This is reflected in our low voluntary turnover rate, which was 4.3% in 2017, and the recognition that we consistently receive from various external award organisations. We also devote substantial resources to training and developing our employees and to engaging them through a variety of channels to make sure their voices are heard.

2017 Turnover Rate



2017 Employee Profile



Fair and Equal Treatment

HK Electric is an equal opportunity employer committed to fair and equal treatment in all aspects of our human resources management, including recruitment, training, promotion, compensation, benefits and termination. We do not tolerate discrimination, harassment, vilification or victimisation of our employees under any circumstances.

We foster a diverse workforce made up of individuals with a wide range of characteristics and experiences. In 2017, a series of training programmes and seminars on equal opportunity, appreciation of diverse cultures, communication and collaborative teamwork were organised for a total of 1,013 participants.

In 2017, 64 new hires were partnered with experienced colleagues through our E-buddy programme to help them assimilate quickly and easily into our corporate culture. The turnover of new employees reduced by 50% compared with that in 2015 before the launch of this programme.



E-buddies receive training to support new hires settle into their new roles.

We appraise and reward our employees for their contributions and capabilities in accordance with our Pay-for-Performance policy. To ensure that our remuneration packages are fair and competitive, we review them on an annual basis with reference to the market trend of related industries.

We received the Good MPF Employer Award 2016/17, e-Contribution Award and Support for MPF Management Award from the Mandatory Provident Fund Schemes Authority, in recognition of our efforts to provide better retirement benefits for employees. To support our colleagues to make informed decisions on fund investment, we host regular investment seminars for them.

Case Story

Promoting Awareness about Anti-Discrimination

HK Electric organises training with the help of the Hong Kong Equal Opportunities Commission to enhance our employees' awareness of anti-discrimination legislation and practices.

In 2017, apart from arranging 180 employees to attend a seminar on equal opportunity, we organised three intensive training workshops for 120 managers and supervisors on building a fair and equal workplace.



Dialogue and Consultation

We are committed to hearing and respecting the opinions of our employees. For over 40 years, our Joint Consultation (JC) Committee has facilitated open communication between employees and management. The Committee has six JC panels with 75 directly elected representatives from various employee groups. In 2017, a total of 20 JC meetings were held to discuss a wide range of topics related to business operations and employee welfare.

With effect from 17 June 2017, we implemented a 5-day work-week for employees who are not on shift-duty. The change was made in consultation with employees to improve work-life balance without compromising other business objectives.

Our senior management team also engages directly with colleagues at all levels to communicate our business objectives and foster productive working relationships. The Managing Director and members of the senior management team hosted three communication events in 2017 to facilitate company-wide exchange of views about recent and future developments affecting our business, including the newly signed SCA taking effect from 2019.

We also stage other established forums for employee engagement, such as regular Health, Safety, Environment and Quality Meetings with front-line staff and quarterly on-site focus group meetings with colleagues at various work locations.



Lunch gathering with employee representatives of our Joint Consultation Committee.



Communication session with employees on the new SCA.

Nurturing Talent

Our dedicated and professional workforce provides expertise to meet our needs in all core areas of our operations rather than heavily relying on external contractors. In our hiring practices, we look for both experienced candidates as well as aspiring young graduates entering the workforce for the first time. By supporting our employees to achieve their goals for professional and personal development, we aim to nurture top talent that will meet our succession needs and sustain the future of our business.

Graduate Recruitment

To attract more young people into the power industry, we promote our trainee programmes for graduates through career fairs organised jointly with universities, the media, and the Electrical and Mechanical Services Department. Our Graduate Trainee Programme, which is accredited by the Hong Kong Institution of Engineers, is a major source of new talent. In 2017, we hired 11 Graduate Trainees from various academic disciplines.



HK Electric participates in career fairs to attract new talent.

Learning and Development

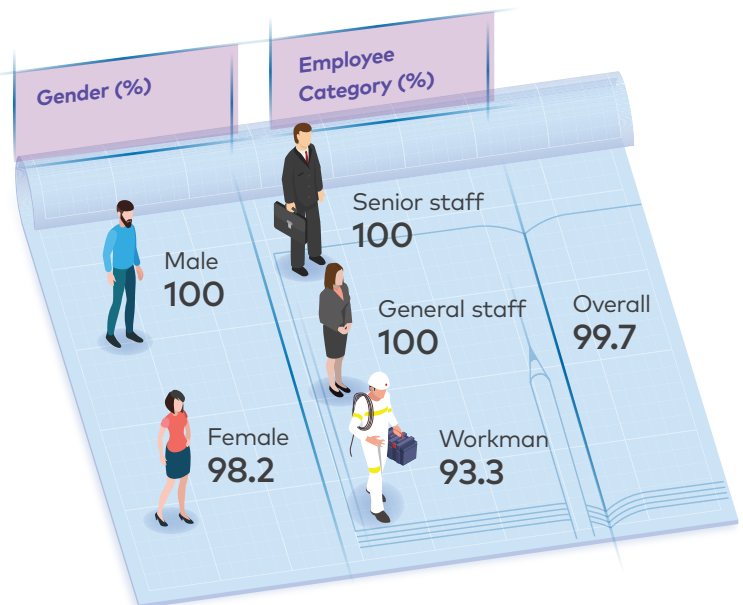
We organise learning and development programmes for our employees in accordance with our well-defined leadership competency framework and talent development roadmap. We recently tasked a cross-functional study group to develop a master plan to strengthen learning, talent management and knowledge management practices, across our business units.

In 2017, we gave targeted development opportunities to employees who demonstrated strong potential for leadership, including group projects, job rotations, coaching and mentorship as well as classroom learning on leadership and management skills. Nine mid-level colleagues were selected to embark on a 2-year Leadership

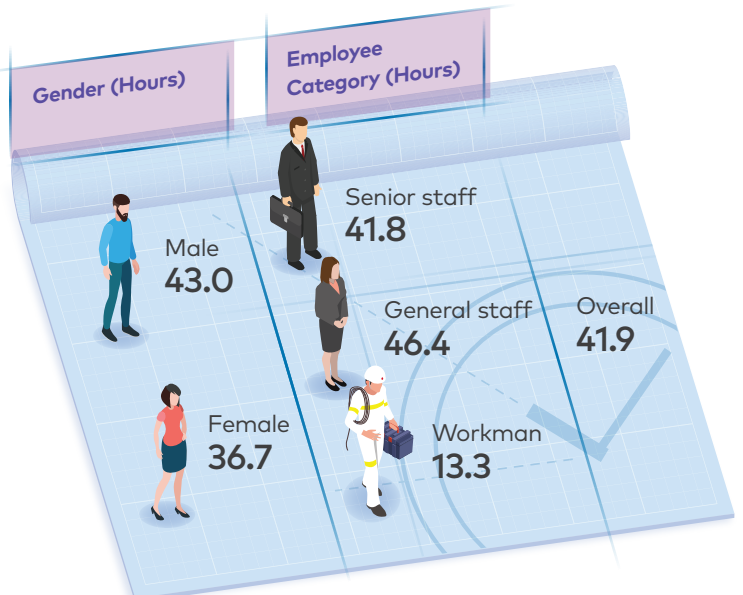
Development Programme and three employees completed their job-role assignment schemes under our Rotational Development Programme. Eight young engineers and professionals joined our newly launched Professional Development Programme.

We encourage our employees to invest in their own professional development by sponsoring them to enroll in external courses. Since 2011, our Education Sponsorship Programme has supported more than 40 employees to pursue undergraduate studies in subjects that are relevant to their work. We have recently expanded the programme to include sponsorships for Master of Business Administration studies.

Percentage of Employees Trained in 2017



Average Training Hours per Employee in 2017



The HK Electric Institute has been providing training and education in power engineering since 2014. We collaborate with universities, training institutes, professional bodies and industrial experts to leverage on the experience and knowledge of guest lecturers alongside those of our current and retired veterans.



Training to improve business English is very popular among our colleagues.

In 2017, the Institute offered a total of 22 modules and provided 2,249 training hours to 499 participants. The courses covered a range of topics, such as system operations, power plant technologies and electricity legislation.

Our Value-Adding Series allows employees to select training based on their interests and needs. In 2017, we launched a new series of training on English-language skills. Around 400 participants attended the kick-off seminar, and 87 employees attended workshops on practical writing techniques. Our English Promotion Campaign encourages employees to make use of online English-learning platforms, and prizes could be won to encourage those who participate in the learning games.

In recognition of our outstanding achievements in manpower training and development, HK Electric was named Manpower Developer (2016–18) by the Employees Retraining Board.

Case Story

Nurturing Talent in Support of the Belt and Road Initiative

In 2017, HK Electric and State Grid Corporation of China announced their support for the Silk Road International School of Engineering (SRISE) for a new project that will nurture high-level talent in the power and energy sectors across the Belt and Road region. Starting from April 2018, we will help conduct training workshops for senior executives and

researchers from power utilities, government departments and higher education institutions involved in electricity and energy operations in Belt and Road countries.

Hosted jointly by The Hong Kong Polytechnic University and Xi'an Jiaotong University, SRISE is a new institution to address the developmental needs of the Belt and Road region by facilitating knowledge transfer, supporting high-quality scientific research and helping establish appropriate professional accreditation frameworks.



Caring for our Employees

HK Electric has signed the Joyful@Healthy Workplace Charter and joined the Joyful@Healthy Workplace programme organised by the Department of Health and the Occupational Safety & Health Council.

In 2017, we received an Excellence Award in the Enterprise/ Organisation Category of the Joyful@Healthy Workplace Best Practices Award competition. We were also named a Happy Company by the Promoting Happiness Index Foundation and the Hong Kong Productivity Council.

Happiness and Support

Through our Employee Wellness Programme, we offer a wide range of activities to promote the physical, emotional, intellectual and social well-being of our employees, including physical exercise, interest groups, eco-tours and volunteering opportunities.

To facilitate healthy recreation in their own time, our employees enjoy access to a variety of facilities provided by the company, such as gym rooms, sports facilities and holiday houses, as well as group activities with support from our Employee Recreational Subsidy Scheme.

Our 2017 Health and Happiness Programme featured seminars, health talks and fitness courses. During the year, 166 colleagues attended seven health talks on jogging, sports injuries, sports medicine and smoke-free lifestyle.

We strive to support our employees to lead healthy and happy family lives. We offer medical check-up plans at preferential rates for family members and provide lactation rooms in our workplaces for breastfeeding mothers. In addition to making an education subsidy available to

employees' children, we offer a range of scholarships for children who demonstrate outstanding performance in school, arts or sports. In 2017, we organised two outings for 120 employees and family members.

We help our employees manage stress and emotional issues. To provide them with support, we offer a 24-hour hotline service manned by professional counsellors. We have also formed the Good Neighbours' Club, with an online sharing platform, for employee-volunteers who are available to provide psychosocial support for colleagues in need. In 2017, three workshops were organised for the Good Neighbours to learn counselling skills and enhance knowledge in psychosocial care.



Colleagues enjoy natural during an outing organised by the company.

Workplace Hygiene and Indoor Air Quality

HK Electric has signed the Workplace Hygiene Charter jointly organised by the Occupational Safety & Health Council, Labour Department and Radio Television Hong Kong. The purpose of the Charter is to foster hygienic workplaces throughout Hong Kong and a strong culture of health and safety.

In addition to conducting regular hygiene and safety inspections on our office premises, we strive to ensure a healthy working environment for our employees by improving indoor air quality (IAQ). In 2017, we received certificates to acknowledge and commend our initiatives under the Hong Kong Green Organisation Certification Scheme and the Government's IAQ Certification Scheme.



Employees learn magic from a colleague at a special interest class.

Health and Safety at Work

We take a proactive approach to promoting the health and safety of our employees and contractors. Due to the effectiveness of our safety management systems, in 2017 we continued to achieve our overall safety performance targets for continuous improvement, including reduction in Lost Time Injury Frequency Rate and Lost Time Injury Severity Rate compared to the average of the previous three years.

At the 16th Hong Kong Occupational Safety & Health Award competition, HK Electric was granted five Gold, one Silver and two Bronze Awards as well as a Safety Performance Award, in recognition of our safety performance and efforts to promote health and safety.

Safety Management

To enhance the integrity of our equipment and work practices, we carry out improvement programmes and safety audits and provide training for our employees and contractors. We also conduct drills to test our response capabilities in contingency situations, such as emergency evacuations, chemical spills and first-aid assistance.

In our workplaces, only workers registered as competent persons are allowed to perform tasks requiring specific knowledge and skills. In 2017, we reviewed and enhanced the Maintenance Authorisation System at Lamma Power Station to ensure that all personnel working on the site have a high degree of competence and knowledge of relevant safety procedures.

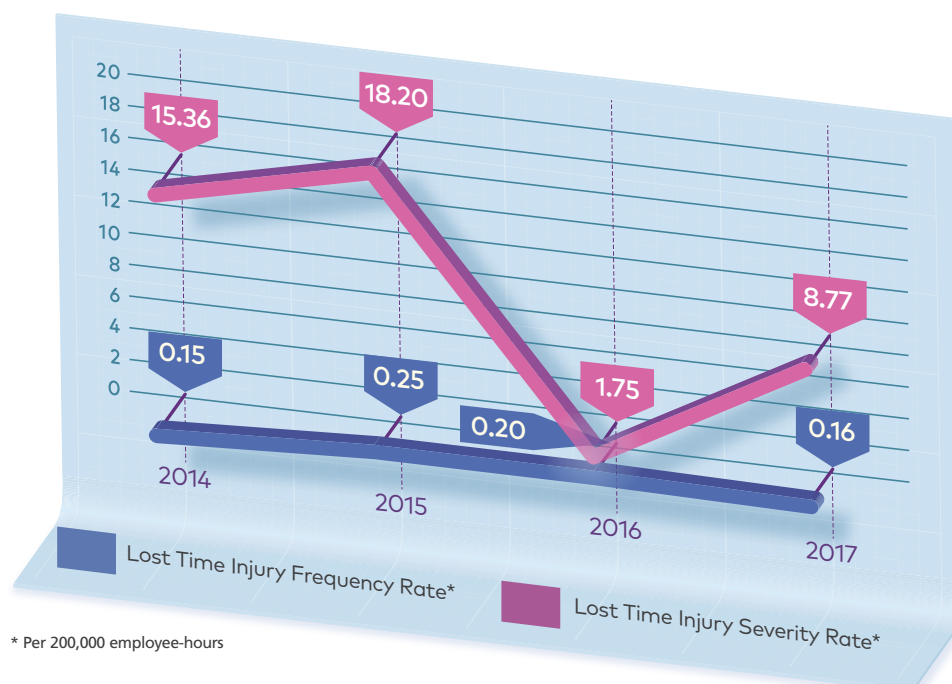


Chemical spill drill at Lamma Power Station.

Unsafe work-above-ground is one of the major causes of serious accidents for construction workers in Hong Kong. During the year, we formalised new corporate safety guidelines for implementation in 2018 to address this issue and provided appropriate training for relevant employees.

We require our employees to report all accidents so that we can identify and implement corrective actions to prevent recurrence. We also encourage them to report near-miss incidents in order to prevent potential hazards from developing into occupational injuries. In January 2018, we launched an incentive scheme for reporting near-miss incidents.

Safety Performance



Our Work Safe Behaviour (WSB) Programme has been in effect since 2011 and aims to eliminate on-site risky behaviour from a range of work activities. In 2017, we trained 18 additional employees to join our team of WSB observers who identified 36 work behaviours that needed to be reviewed.

To help avoid accidents and improve efficiency, we have expanded the scope of our 5S Good Housekeeping Programme, and introduced several new technologies. To reduce workers' exposure to time-consuming and high-risk tasks, we now deploy unmanned aerial vehicles to inspect high-level plant equipment and have installed thermal imaging cameras to monitor our Gas Receiving Station. We have also acquired a new "binwhip" tool to eliminate the need for manual cleaning of the confined space inside our limestone silos.

Safety Culture

We cultivate health and safety awareness through training and promotional campaigns that run throughout the year to engage all employees and contractors to achieve our ultimate goal of zero accidents.

Our annual Health and Safety Week was held in August 2017 at Lamma Power Station at which employees and contractors attended sharing sessions and speeches on the theme of "Safety in Our Hands". In December, we held another safety promotion event for contractors working

on our development projects entitled "Safety, Health and Environment Day" (SHE Day). We also launched a new campaign entitled SHE Driving to promote transport safety and eco-driving among employees and contractors.

Teams from HK Electric performed well in Safety Quiz 2017 organised by the Occupational Safety & Health Council and Labour Department, winning in the Corporate Category the Championship, First Runner-up and Second Runner-up titles in the Cup Final, as well as the Championship and First Runner-up titles in the Plate Final. A team from HK Electric subsequently represented Hong Kong in the ninth Regional Safety Quiz, competing against teams from Guangdong and Macau, and finally came second in the Enterprise Category.



A team from HK Electric is the First Runner-up at the ninth Regional Safety Quiz among Guangdong, Hong Kong and Macau.

Case Story

Strong Partnerships are Integral to our Safety Culture



We work together with our business partners to ensure the safety of every worker, including contractors and employees alike.

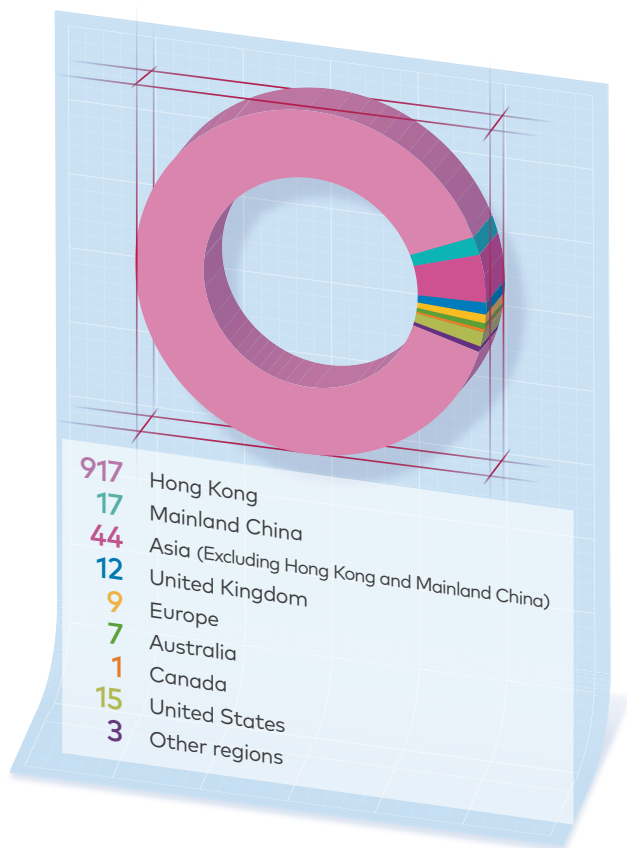
In response to an alarming increase in the number of workplace accidents affecting the engineering and construction industries in Hong Kong during the first half of 2017, we hosted a Safety Summit in August to share best practices with representatives of nine of our major business partners for construction, engineering and maintenance activities.

We are proud to acknowledge the achievements of our business partners whose top safety performance has been recognised by the Occupational Safety & Health Council. In 2017, for example, one of our major Electrical & Mechanical contractors received Gold Awards in the Construction Safety Promotional Campaign 2017 for "Best Safety Enhancement Programme for Working at Height" and "Outstanding Metal Scaffolder in Occupational Safety and Health". Our concrete batching contractor at Lamma Power Station also won a Safety Performance Award in the 16th Hong Kong Occupational Safety & Health Award competition.

Managing our Supply Chain

We depend on our suppliers to help us construct, operate and maintain our power facilities, as well as to support our daily operations. All suppliers must abide by our Code of Practice, which requires them to uphold high standards with respect to ethics, human and labour rights, health and safety, and environmental protection. They are also expected to ensure that their own suppliers uphold similarly high standards. In 2017, we engaged a total of 1,025 suppliers.

Number of Suppliers in 2017 by Geographical Region



Responsible Procurement

All of our major suppliers other than fuel and limestone suppliers are required to follow established procedures for assessment and screening before being accepted onto our Recognised Tenderers Register (RTR), and every tender or quotation we receive is processed according to our established commercial procedures. The engagement of fuel and limestone suppliers, who represented about 1.2% of all our suppliers in 2017, is handled on a case-by-case basis with due regard to their CSR performance.

We periodically review the suppliers on our RTR and request them to submit an update on their CSR performance. In 2017, we evaluated the CSR performance of 59 suppliers.

In accordance with our Green Purchasing Policy and Green Purchasing Guidelines, we consider impacts on the environment, apart from quality, price and punctuality of the supplies, when making procurement decisions. All else being equal, we prefer to work with suppliers who practise good environmental protection and promote conservation of resources.

HK Electric is a signatory to the "Charter on Preferential Appointment of OSH Star Enterprise" organised by the Occupational Safety & Health Council. We pledge to give preferential appointment to suppliers with an OSH Star for their implementation of effective safety management systems in RMAA (repair, maintenance, alteration and addition) works.

Influencing our Suppliers

Our suppliers are valued business partners, and we engage them regularly to pursue shared goals for sustainable development.

In 2017, we visited five of our coal suppliers to conduct audits on their operations and inspect coal quality. We took advantage of these visits to reaffirm HK Electric's commitment to good social and environmental performance by sharing information about our sustainability strategies and initiatives.



Site visit to a supplier's coal mine.

In November, our employees and representatives from our major construction contractors participated in a team-building and leadership development event. The 40 participants engaged in challenging and inspiring activities in a stunning natural environment.

We acknowledge the performance of two of our Electrical & Mechanical contractors, who were recognised in the HSBC Living Business Awards 2017 for "Caring for People" and "Green Achievement".

HKEI upholds high standards of corporate governance through a robust framework of policies, guidelines and processes based on the Corporate Governance Code as set out in the Listing Rules. In addition to underpinning the smooth, effective and transparent operations of our organisation, we believe that our firm commitment to openness, probity and accountability attracts investment, protects the rights of shareholders and other stakeholders, and enhances our shareholder value.

Our long-term strategies are guided by our vision to excel in the power business while continuously improving our sustainability performance. We operate with high efficiency on prudent financial principles, enabling us to serve Hong Kong with a world-class supply of electricity at affordable prices, while generating long-term stable and growing returns for our investors.

In 2017, HKEI continued to be included in the MSCI HK Index and the Euronext Vigeo World 120 Index.

Creating Value

Responsible
and Ethical
Business

Sustainable
Growth for the
Long Term





Responsible and Ethical Business

Our corporate culture encourages a risk aware and control conscious environment, and also values honesty, accountability and integrity. For more information about our corporate governance practices, please refer to our Annual Report or visit our website.

Managing our Risks

We have an Enterprise Risk Management framework in place to identify, assess, mitigate and monitor risks on a company-wide basis. We have also established a Crisis Management Plan outlining corporate responses to various emergency situations that have the potential to inflict damage on our long-term business plans. We conduct regular drills to bolster our preparedness for crisis scenarios. In parallel, each business unit manages their respective contingency plans for maintaining business continuity.

For legal and regulatory compliance, which is overseen and monitored by our Compliance Committee, we have developed a structured Compliance Framework to manage our compliance obligations on a company-wide basis. We abide by all ordinances and statutory requirements in relation to our business operations. In 2017, there were no instances of material non-compliance.

We are continuously enhancing our risk management and internal control systems with reference to international standards, such as COSO 2013 Internal Control Framework.

Upholding our Ethics

All employees are required to adhere to high ethical standards in every aspect of work. Our Code of Conduct provides guidance on how to deal with ethical issues and on the reporting of unethical behaviour.

Any employee or external party with a legitimate grievance against the Group, or its employees, is encouraged to contact the Head of Internal Audit through our whistleblowing hotline. We welcome reports about actual or potential illegal acts or violations of our Code of Conduct, including fraud, bribery and corruption.

We conduct a biannual assessment to evaluate the effectiveness of controls for managing bribery and corruption risks. In 2017, there were no concluded legal cases regarding bribery or corruption brought against HKEI or its employees.

Our Fraud Prevention and Awareness Policy is designed to minimise the Group's exposure to fraud risk. We foster a fraud-free culture by promoting employees' awareness of fraud prevention and detection. Employees receive regular training on anti-fraud and anti-corruption practices from the Human Resources Division and external parties such as the ICAC and Hong Kong Police Force.

Meaningful Engagement

We communicate with our shareholders and other investors through a variety of channels, including our website and publications. In addition to our Annual General Meeting, and meetings with investors and investment analysts, we publish results highlights and Annual and Interim Reports. We issue notices, letters, announcements, circulars and news releases with up-to-date information on developments impacting our business.

In 2017, we organised 24 tours of our Lamma Power Station in order for our shareholders to gain a better understanding of our operations. More than 1,000 shareholders and their guests participated in these visits.

To be transparent about our sustainable development strategies and impacts, we publish a Sustainability Report and participate in the Carbon Disclosure Project (CDP) every year. Our annual greenhouse gas inventory is independently verified with reference to ISO 14064 requirements and is reported to CDP.



HKEI's Annual General Meeting.

Case Story

Quality Excellence is the Cornerstone of our Success

The Hong Kong Management Association (HKMA) has recognised HK Electric's outstanding performance in quality management by bestowing us with the Grand Award in its 2017 Quality Award scheme. The decision was based on an extensive evaluation of our quality management practices across seven areas, ranging from Leadership and Strategy to Analysis and Knowledge Management. The panel of judges particularly commended our ability to adapt strategically to changing circumstances.

Participation in the HKMA Quality Award scheme has allowed us to benchmark our operations against an objective and proven framework. We welcome the opportunity to address the judges' recommendations



for improvement. Four study groups were formed subsequently for benchmarking practices in leading organisations on "Innovation and Digital Transformation", "Learning and Knowledge Management", "Review of Business Processes" and "Asset Management and Condition Monitoring". We believe the studies will help us shape our strategies for us to continue rising to the challenges and opportunities ahead.

Sustainable Growth for the Long Term

We pursue sustainable business growth to generate stable returns for our shareholders over the long term. To achieve these objectives in Hong Kong's highly developed electricity market, we must continue to make prudent investments for delivering world-class services with high standards of reliability, customer service and environmental performance.

In the context of the Government's Climate Action Plan 2030+, we have pledged our full support to reducing Hong Kong's carbon intensity by 65–70% by 2030 compared to the 2005 level. We are embracing cleaner and smarter technologies in order to play a key role in our city's transition to a low-carbon future.



Signing of a new Scheme of Control Agreement with the Government.

In April 2017, we signed a new SCA with the Government, valid for 15 years from 1 January 2019 to 31 December 2033. Early conclusion of negotiations on this agreement provides clarity and certainty about our future regulatory framework, which will facilitate progress on a pipeline of new investments. We believe this is conducive to continued provision of safe, reliable, affordable and clean electricity in line with the Government's energy and environmental policy objectives.

Over the next decade or so, we plan to renew our power generation portfolio at Lamma Power Station. In addition to two new gas-fired units, L10 and L11, which are currently under construction, more gas-fired units will be progressively brought on stream to replace coal-fired units that are coming to the end of their asset life cycles. In partnership with CLP Power, we are exploring the feasibility of constructing an offshore LNG terminal to secure a competitive long-term supply of clean fuel.

We continue to support the electrification of Hong Kong's public transport system in order to meet growing demand while reducing roadside emissions. We are currently developing the necessary electrical infrastructure and associated works for another new cross-harbour MTR line, the Shatin to Central Link. We are also supporting the growth of Hong Kong's electric vehicle market by offering advisory services on installing charging stations and providing free charging services through our charging network.

Key Performance and Targets

Targets Set for 2017

Environment	Status
Collect and reuse at least 100,000 m ³ of plant effluent and rain water at Lamma Power Station in 2017.	Achieved
Plant diverse species of native trees or shrubs at Lamma Power Station in 2017 to support biodiversity.	Achieved
Complete the erection of three new EV quick charging stations and upgrading of remaining four standard charging stations in 2017.	Achieved
Reduce vehicle fleet's fuel usage in 2017 as compared to 2016.	Achieved
Increase EV mileage in 2017 as compared to 2016.	Achieved
Conduct at least 50 energy audits for non-residential customers in 2017 to help them identify energy saving opportunities.	Achieved
Obtain at least one Wastewise Certificate and one Energywise Certificate under the Hong Kong Green Organisation Certification Scheme in 2017.	Achieved
Commission two new gas-fired generating units, L10 and L11, at Lamma Power Station by 2020 and 2022 respectively.	In progress
Reduce CO ₂ e per electricity unit sold to not higher than 0.67 kg/kWh in 2022 from 0.93 kg/kWh in 2005 (just before natural gas was introduced at Lamma Power Station).	In progress
Reduce total electricity consumption of seven main buildings at Lamma Power Station by 10% in 2025 as compared to the baseline figure in 2013.	In progress

Health & Safety	Status
Achieve a reduction in the Lost Time Injury Frequency Rate (LTIFR) in 2017 as compared to the average over the previous three years.	Achieved
Achieve a reduction in the Lost Time Injury Severity Rate (LTISR) in 2017 as compared to the average over the previous three years.	Achieved
Obtain at least three Excellent Class Indoor Air Quality (IAQ) Certificates under the Government's IAQ Certification Scheme in 2017.	Achieved
Organise a series of health talks and interest classes for employees in 2017.	Achieved

Partners & Community	Status
Fulfil all our customer service pledges, embracing supply reliability, speediness of provision of supply and other customer services, including emergency services, in 2017.	Achieved
Launch a promotion programme on electronic billing and autopay in 2017 to encourage more customers to switch to electronic services.	Achieved
Further expand the Plant Ownership Programme at Lamma Power Station by adding three new projects in 2017 to enhance plant reliability and availability, and to facilitate development of young engineers.	Achieved
Develop a fraud risk assessment framework and facilitate divisions/departments to perform fraud risk assessments in 2017 to identify assets or areas that are prone to fraud risks and enhance employee awareness of fraud risks.	Deferred ^[1]
Soft launch the Smart Power Gallery in 2017 to educate general public on the smart use of electricity.	Deferred ^[2]
Engage more than 85,000 participants in the Smart Power Campaign in 2017.	Achieved
Organise more than 200 corporate visits for various stakeholders in 2017.	Achieved
Enhance the necessary electricity infrastructure for MTR lines in 2017 to support economic and social development of local communities.	Achieved

Notes:

[1] Preliminary planning of the assessment was carried out in 2017. The assessment is expected to be conducted in 2018/2019 due to an expansion of scope.

[2] Enhancement work will be arranged for the Smart Power Gallery to cater for the energy service schemes under the new SCA concluded in April 2017. The target launching date has been revised to 2019.

Awards and Recognition

It is encouraging that our on-going sustainability efforts have been widely recognised with various awards obtained covering the areas of quality, health and safety, environmental protection, community involvement, customer service, and corporate and staff achievements. For a full list of our awards in 2017, please refer to our Annual Report.



HKRMA Mystery Shopper Programme – Service Retailers of the Year in Retail (Services) Category, and Service Retailers of the Year – Bronze Award.



BOCHK Corporate Environmental Leadership Awards 2016 – Manufacturing Sector – Bronze Award.



The 16th Hong Kong Occupational Safety & Health Award – Five Gold Awards, one Silver Award, two Bronze Awards and a Safety Performance Award.



Outstanding Registered Electrical Worker Awards Scheme 2017 – Gold and Silver Prizes (Individual Category), and Bronze Prize (Team Category).



Good MPF Employer Award.

Summary of Statistics



Environment

2017

2016

2015

Fuel Consumed (TJ) ^[1]

Gas	30,914	31,983	32,045
Coal & oil ^[2]	79,258	80,012	79,805

Licence Compliance

Percentage of Compliance (%)	100	100	100
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Air Emissions

SO ₂ (kT) ^[1]	2.21	2.75	2.97
NO _x (kT) ^[1]	8.14	8.68	8.69
RSP (kT) ^[1]	0.20	0.21	0.18
CO ₂ (million T) ^[1]	8.36	8.50	8.44
CO ₂ e (million T) ^[3]	8.41	8.54	8.47
CO ₂ e per electricity unit sold (kg/kWh) ^[3]	0.79	0.79	0.78

Material Non-Hazardous Wastes (kT) ^[1, 4]

Ash produced	229	237	211
Ash collected for industrial uses	235	238	208
Gypsum produced/collected for industrial uses	61	66	64

Material Hazardous Wastes ^[5]

Waste oil collected for recycle (litre)	18,400	42,600	118,100
Waste oil collected for disposal (litre)	79,160	38,000	8,440
Other material hazardous wastes measured by volume in trip tickets for recycle (litre)	0	–	–
Other material hazardous wastes measured by volume in trip tickets for disposal (litre)	11,240	–	–
Other material hazardous wastes measured by weight in trip tickets for recycle (kg)	22,212	–	–
Other material hazardous wastes measured by weight in trip tickets for disposal (kg)	25,853	–	–

Water Consumption/Discharge ^[1]

Marine water withdrawal & discharge (million m ³)	1,926	2,160	2,023
Town water consumption (thousand m ³) ^[6]	2,375	2,397	2,257
Wastewater discharge (thousand m ³)	160	138	185

Noise Abatement Notice

Number of notices received	0	0	0
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Certificate Accreditation

Number of ISO 14001 certificates	3	3	3
Number of ISO 50001 certificates	1	1	1





Operations

2017

2016

2015

Customer Service

Number of customers (thousands)	577	575	572
Average rating of customer satisfaction level (maximum mark for each index is 5.0)	4.6	4.5	4.6
Number of pledged service standards	18	18	18
Percentage achieved (%)	100	100	100

Installed Capacity (MW)^[1]

Gas	680	680	680
Coal & oil ^[2]	2,805	3,055	3,055
Renewable energy	1.8	1.8	1.8

Performance

Electricity sold (millions of kWh)	10,615	10,792	10,879
Plant availability (%)	87.1	85.6	85.5
Thermal efficiency (%)	35.9	35.9	36.2
Transmission and distribution losses (%)	3.3	3.3	3.4

Electricity Supply Reliability

Supply reliability rating (%)	>99.999 (99.9999)	>99.999	>99.999
Unplanned customer minutes lost (minutes)	0.5	0.7	0.6

Certificate Accreditation

Number of ISO 9001 certificates	9	9	9
Number of HOKLAS certificates	3	3	3
Number of ISO 55001 certificates	2	2	2

Health & Safety

2017

2016

2015

Number of fatalities	0	0	0
Number of lost time injuries	3	4	5
Lost Time Injury Frequency Rate (LTIFR) (per 200,000 employee-hours)	0.16	0.20	0.25
Number of days lost/charged (no. of employee-days)	168	35	362
Lost Time Injury Severity Rate (LTISR) (per 200,000 employee-hours)	8.77	1.75	18.20
Longest period without a lost time injury (no. of days)	150	117	201
Number of reported traffic accidents (no. of cases)	9	11	12
Traffic Accident Frequency Rate (TAFR) (no. of cases per million km travelled)	4.8	5.7	6.3
Number of OHSAS 18001 certificates	3	3	3

Notes:

[1] For power generation only.

[2] Fuel oil is mainly used for starting and flame stabilisation of coal-fired units and hence, specific breakdown for fuel oil is not given.

[3] The methodology used for calculation is drawn from Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, taking into account greenhouse gas emissions generated from the processes of power generation, transmission and distribution.

[4] HK Electric's material non-hazardous wastes are ash and gypsum.

[5] HK Electric's material hazardous wastes are those wastes required to be managed under the mandatory trip ticket systems. These wastes were collected and treated by licensed waste collectors and facilities.

[6] Town water is provided by the Water Supplies Department of the HKSAR Government.

[7] For economic/financial data, please refer to our Annual Report.

Looking Ahead

We understand that, as a power utility in Hong Kong, we have a crucial role to play in supporting the city's economic and social developments. As a responsible business, we have a duty of care towards the environment, communities, our employees and other stakeholders. To realise these commitments, we regularly review our performance to date and set specific goals for the future. Outlined below are the targets we set in the areas of Environment, Health and Safety, and Partners and Community for 2018 and beyond.

Environment

- > Collect and reuse at least 100,000 m³ of plant effluent and rain water at Lamma Power Station in 2018.
- > Plant diverse species of native trees or shrubs at Lamma Power Station in 2018 to support biodiversity.
- > Reduce food waste at the canteen of Lamma Power Station by 2% in 2018 as compared to 2017.
- > Reduce vehicle fleet's fuel usage in 2018 as compared to 2017.
- > Increase EV mileage in 2018 as compared to 2017.
- > Conduct at least 50 energy audits for non-residential customers in 2018 to help them identify energy saving opportunities.
- > Obtain at least one Wastewi\$e Certificate and one Energywi\$e Certificate under the Hong Kong Green Organisation Certification Scheme in 2018.
- > Commission two new gas-fired generating units, L10 and L11, at Lamma Power Station by 2020 and 2022 respectively.
- > Reduce CO₂e per electricity unit sold to not higher than 0.67 kg/kWh in 2022 from 0.93 kg/kWh in 2005 (just before natural gas was introduced at Lamma Power Station).
- > Reduce total electricity consumption of seven main buildings at Lamma Power Station by 10% in 2025 as compared to the baseline figure in 2013.

Health & Safety

- > Achieve a reduction in the Lost Time Injury Frequency Rate (LTIFR) in 2018 as compared to the average over the previous three years.
- > Achieve a reduction in the Lost Time Injury Severity Rate (LTISR) in 2018 as compared to the average over the previous three years.
- > Obtain at least three Excellent Class Indoor Air Quality (IAQ) Certificates under the Government's IAQ Certification Scheme in 2018.
- > Organise a series of health talks and interest classes for employees in 2018.

Partners & Community

- > Fulfil all our customer service pledges, embracing supply reliability, speediness of provision of supply and other customer services, including emergency services, in 2018.
- > Launch a promotion programme on electronic billing and autopay in 2018 to encourage more customers to switch to electronic services.
- > Further expand the Plant Ownership Programme at Lamma Power Station by adding three new projects in 2018 to enhance plant reliability and availability, and to facilitate development of young engineers.
- > Organise more than 210 corporate visits for various stakeholders in 2018.
- > Extend care to more than 2,100 elders under our "CAREnJOY for the Elderly" programme in 2018.
- > Enhance the necessary electricity infrastructure for MTR lines in 2018 to support economic and social development of local communities.
- > Develop a fraud risk assessment framework and facilitate divisions/departments to perform fraud risk assessments in 2018/2019 to identify assets or areas that are prone to fraud risks and enhance employee awareness of fraud risks.
- > Soft launch the Smart Power Gallery in 2019 to educate the general public on the smart use of electricity.



Verification Statement



VERIFICATION STATEMENT

Scope of Verification

Hong Kong Quality Assurance Agency ("HKQAA") has been engaged by HK Electric Investments and HK Electric Investments Limited (collectively known as "HKEI") to undertake an independent verification for its Sustainability Report 2017 (refer to as "the Report"). The scope of HKQAA's verification covers the data and information associating to HKEI's sustainability performance for the period from 1st January 2017 to 31st December 2017. This is the 5th annual Sustainability Report of HKEI to communicate its commitments, efforts and progress of performance towards sustainability.

Level of Assurance and Methodology

The process applied in this verification was based on international standards. Our evidence gathering process was designed to obtain a reasonable level of assurance as set out in the standard for the purpose of devising the verification conclusion, and the extent of this verification process undertaken was based on the Global Reporting Initiative Sustainability Reporting Standards ("GRI Standards") and the Electric Utilities Sector Disclosures, as well as HKEI's Environmental, Social and Governance ("ESG") Reporting Guide.

In order to understand the process that HKEI adopted to ascertain the key sustainability issues and impacts, the Report compilation process including stakeholder engagement and materiality assessment processes was discussed. The system and process for collecting, collating and reporting sustainability performance data were also verified. Our verification procedure performed covered reviewing of relevant documentation, interviewing responsible personnel with accountability for preparing the reporting contents and verifying the selected representative sample of data and information. Raw data and supporting evidence of the selected samples were also thoroughly examined during the verification process.

Independence

HKEI is responsible for the collection and preparation of the information presented. HKQAA does not involve in calculating, compiling, or in the development of the Report. Our verification activities are independent from HKEI.

Conclusion

On the basis of our verification results and in accordance with the verification procedures undertaken, it is the opinion of the HKQAA's verification team that:

- The Report illustrates HKEI's sustainability performance on the significant aspects in a balance, comparable, clear and timely manner;
- The data and information stated in the Report are reliable and complete;
- The Report has been prepared in accordance with the "Core Option" of the GRI Standards and the Electric Utilities Sector Disclosures as well as the HKEI's ESG Reporting Guide;
- The Report has also addressed a significant number of material disclosures required under the "Comprehensive Option" of the GRI Standards.

HKEI has been engaging with its stakeholders continuously and being very responsive to the feedbacks gathered from the stakeholder engagement process by improving its disclosure regarding the material issues that are of importance to the company and high level of interest by stakeholders. The Report reflects appropriately HKEI's sustainability context and materiality.

Signed on behalf of Hong Kong Quality Assurance Agency

Jorine Tam
Director, Corporate Business
February 2018



港燈電力投資

HK Electric Investments

HK Electric Investments (港燈電力投資)

(as constituted pursuant to a deed of trust on 1 January 2014 under the laws of Hong Kong, the trustee of which is HK Electric Investments Manager Limited (港燈電力投資管理人有限公司))

and

HK Electric Investments Limited (港燈電力投資有限公司)

(a company incorporated in the Cayman Islands with limited liability)

(Stock Code: 2638)

Share Your Views with Us!

We value your views on this report and our sustainability performance, as your feedback will help us realise our vision for a sustainable future. Please share your comments by completing the online feedback form on our website or by contacting us at:

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