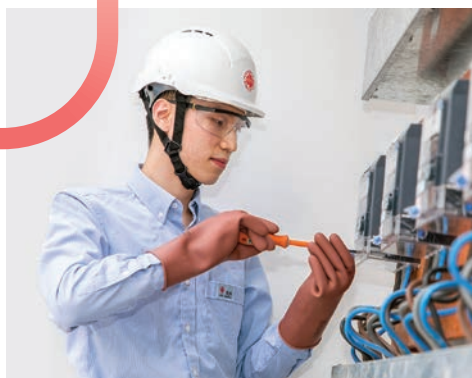




港燈電力投資
HK Electric Investments



for a
sustainable future



SUSTAINABILITY
REPORT
2020



37674



Keep growing

despite challenges

2020 has been a difficult year for many people in Hong Kong and around the world due to the COVID-19 pandemic and subsequent economic downturn. Resilient as ever, here at HKEI we are moving forward together with our customers and local community despite the hardship. No matter what challenges we face, we strive to find new and innovative ways to keep going and growing, very much like the stone-walled trees that thrive in our city and resilient species of plants from our local environment that adapt in tough conditions.

We will continue to protect the environment, serve our customers and care for our stakeholders; helping Hong Kong flourish into a smarter and greener city.



Contents

2-5

A Word from our CEO

6-13

Our Business and Approach to Sustainability

- ▶ HKEI in Brief
- ▶ Sustainability Governance
- ▶ Materiality
- ▶ Sustainable Development Goals

14-27

Running a Sustainable Business

- ▶ Management Approach
- ▶ Sustainable Long-term Growth
- ▶ Corporate Governance Practices
- ▶ Sustainability Risks and Opportunities
- ▶ Stakeholder Engagement
- ▶ Innovation

Report Overview

Scope and Boundary

This is the Sustainability Report of HK Electric Investments and HK Electric Investments Limited (collectively known as HKEI) for 2020. Our main operating company, The Hongkong Electric Company, Limited (HK Electric), is a major power utility in Hong Kong. The report presents our approach to sustainability, key performance during the year as well as plans and targets for the future, covering our electricity business in Hong Kong. It is designed to be read in conjunction with information from our other key reporting channels. Details about our policies and routine initiatives are available on our website www.hkei.hk. More information about our governance practices, financial performance, and awards and recognition received is covered in our [Annual Report](#).

Basis of Reporting

In preparing this report, we have followed the Global Reporting Initiative's (GRI) Sustainability Reporting Standards and Electric Utilities Sector Disclosures as well as Hong Kong Exchanges and Clearing Limited's (HKEX) latest 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 disclosures required under the Comprehensive option.

The [GRI Content Index](#) and [HKEX ESG Content Index](#) of this report are available on our website, providing cross-reference information for readers to locate individual disclosures. 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 assessment. Details and results of the materiality assessment can be found in the chapter on [Our Business and Approach to Sustainability](#).



28-39

Sharing our Planet

- ▶ Management Approach
- ▶ Climate Action and Clean Air
- ▶ Responsible Resource Management
- ▶ Education and Awareness

40-55

Serving Hong Kong

- ▶ Management Approach
- ▶ Reliable and Affordable Power
- ▶ Serving our Customers
- ▶ Smart Power Services
- ▶ Caring for the Community

56-73

Working with Partners

- ▶ Management Approach
- ▶ Building Strong Relations
- ▶ Nurturing Talent
- ▶ Health & Safety
- ▶ Managing our Supply Chain

74-76

Key Statistics and Targets

77

Verification Statement

Our data collection and analysis is 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. Significant performance data for the latest three years is also listed in the [Summary of Statistics](#) of this report with necessary explanatory notes for easy comparison. All financial data are presented in Hong Kong dollars unless otherwise specified. Due to rounding, some figures may not add up to the total.

Other Information

The suppliers referred to in this report have a direct commercial relationship with us, including contractors. Our workforce primarily comprises full-time employees with an insignificant portion of part-time and temporary employees. Employees 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 Stapled Units.

The online version of this report contains video links and some of the videos are available in Chinese only.

Verification and Endorsement

In line with our commitment to being transparent about our sustainability performance and to managing our performance responsibly, we commissioned an independent third party to verify the contents of this report and assure its credibility.

This report has been endorsed by our Sustainability Committee and approved by our Board of Directors.

A Word from our CEO

“ We render our full support to the Government on the best way forward to achieve carbon neutrality by introducing zero-carbon energy sources and carbon reduction technologies. At the same time, we will maintain a close dialogue with our stakeholders to ensure the energy needs of our society will continue to be met. ”



2020 has been a year of unprecedented events affecting all Hong Kong people; but HKEI continues to move forward to meet its development milestones with purpose and optimism.

Thanks to the dedication of our workforce and the continued support of our stakeholders, we have shown remarkable resilience in the face of the COVID-19 pandemic. In addition to installing and commissioning our new gas-fired combined-cycle units, we have maintained world-class electricity-supply services to our customers while safeguarding the health and safety of our employees.

HKEI recognises that climate change is a sustainability challenge of monumental significance to Hong Kong. We are in the process of decarbonising our operations while pursuing a long-term development pathway leading to net-zero carbon emissions. We strive to help transform our city into a low-carbon economy because it is in the best interest of our customers, our community and our planet.

We welcome the Government's ambitious statement announced in November to strive towards carbon neutrality before 2050. Achieving city-wide net-zero carbon emissions is a long-term commitment that entails close coordination among all stakeholders, including those involved in policy formulation, technology development and investment. To this end, HKEI fully supports the Government and will engage with its stakeholders on the best way forward to achieve the target together.

Keep Going | Keep Growing

The COVID-19 pandemic has been enormously disruptive to daily lives and the economy, but it has not shifted HKEI's focus. During the year, we overcame many challenges posed by social distancing to successfully commission the first of three identical gas-fired units. We also maintained our network supply reliability at higher than 99.999% for the 24th year in a row, and even surpassed all past records with a figure of over 99.9999%.

In April 2020, we began to deploy Advanced Metering Infrastructure and smart meters to help transform Hong Kong into a smart city. In addition to fulfilling our installation target of 40,000 smart meters on customers' premises, we made significant progress in developing new wireless infrastructure for transmitting energy consumption data safely and securely to our data management centre.

2020 Performance Highlights

Environment & awareness

- **~50%** electricity output from natural gas
- **~16%** reduction in CO₂ emissions compared to 2019
- **~0.71 kg** of CO₂e per unit of electricity sold
- SO₂, NO_x & RSP emissions **below stipulated emissions allowances**
- **~3.5 GWh** of green electricity from RE installations of HK Electric and its Feed-in-Tariff customers
- **~57,000** participants in Happy Green Campaign
- **~130** local retirees trained as Smart Power Ambassadors

Keep Caring | Keep Sharing

Employee health and safety is one of our top priorities. In response to the emerging pandemic, we developed and implemented a series of business continuity plans and emergency response measures to reduce the risk of infection. As a testament to the effectiveness of these measures, there were no recorded incidents of secondary infection in our workplaces, notwithstanding three isolated COVID-19 cases among our employees and contractor personnel.

The wellbeing of our customers is close to our hearts. In order to extend support to people and businesses experiencing hardship during the pandemic, we distributed \$20 million worth of dining coupons for low-income families to enjoy meals at small eateries in our supply areas. For commercial customers impacted by the pandemic, particularly Small and Medium-sized Enterprises (SMEs), we provided a 6-month tariff adjustment waiver, a 2-month bill-payment deferral and financial subsidies for purchasing new energy-efficient equipment. These measures provided relief to more than 70,000 non-residential customers and 180 SMEs.

We will continue to provide relief measures and energy-saving programmes for customers in need during 2021, albeit on a reduced scale. We expect the new round of initiatives to benefit more than 40,000 low-income families and 500 SMEs. In doing so, we hope to contribute to the economic recovery of Hong Kong as it emerges from the shadow of COVID-19.

Keep Greening | Keep Decarbonising

We are progressing with our 2019-2023 Development Plan, in which a significant portion of the \$26.6-billion capital expenditure has been earmarked for decarbonisation initiatives such as transitioning from coal to gas for power generation. We are also actively supporting greater adoption of electric vehicles and encouraging our customers to participate in the Feed-in Tariff Scheme and other energy efficiency and conservation programmes.

At Lamma Power Station, we are replacing coal-fired generating units as they retire with three highly-efficient gas-fired combined-cycle units. Following the commissioning of L10 in February 2020, the proportion of gas-fired generation in our total power output has increased to about 50%.

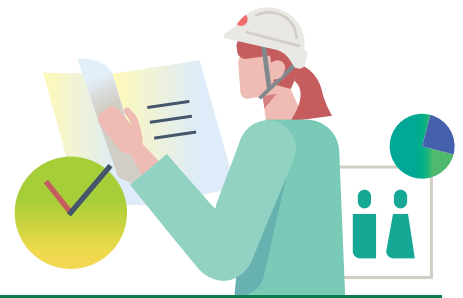
The construction of another two units, namely L11 and L12, is on track despite unforeseen delays caused by the pandemic. The units are scheduled for commissioning in 2022 and 2023, at which time we expect around 70% of our electricity output will be generated by natural gas, thereby reducing our carbon emissions by about 40% compared with the 2005 level.

To meet the increasing demand for reliable and cost-competitive natural gas supply, we are collaborating with CLP Power to develop an offshore liquefied natural gas terminal using "Floating Storage and Regasification Unit" technology. Project construction has begun and is on schedule for completion in 2022.



Customer & community care

- **>99.9999%** new supply reliability record;
- **<0.5 minute** unplanned customer minutes lost first time ever
- **4.7** average customer satisfaction rating (on a 5-point scale)
- **>40,000** smart meters installed
- Subsidies approved for **85** buildings under Smart Power Building Fund
- **210** free Smart Power Energy Audits
- **72** grid connections under Feed-in Tariff Scheme
- **>1,600** households subsidised under Smart Power Care Fund
- **\$20 million** worth of "Care and Share" dining coupons distributed to low-income families
- **>6,800** single elders received care messages weekly under CAREnJOY since May



Safety & employee care

- **3** lost time injuries
- **0.17** lost time injury frequency rate
- **19.35** lost time injury severity rate
- **~18** training hours per employee
- **2.4%** low employee turnover rate

Going forward, we believe there is room to further develop into all-gas power generation at Lamma Power Station after 2023, subject to new directions set by the Government as it works to update "Hong Kong's Climate Action Plan."

Keep Cultivating | Keep Advancing

HKEI's success depends upon the hard work and professionalism of our team. I am confident that we can rise to any challenge by continuing to attract and retain talent; and by empowering our people to drive positive changes. In 2020, we received the Randstad Employer Brand Awards, which identifies us as an employer of choice ranked third among Hong Kong's Top 20 Most Attractive Employers.

Innovation is increasingly driving HKEI's business strategy. We encourage our colleagues to foster creativity and explore continuous improvement opportunities across our operations. In September 2020, we were honoured to receive the "Hanson Grand Retro-commissioning (RCx) (Implementation) Award" under the Government's Energy Saving Championship Scheme for our innovative energy conservation project at Electric

Tower. The RCx project showcased new ways of saving energy in the built environment by adopting appropriate technologies such as AI.

To conclude, I would like to emphasise that strong leadership and governance is an integral part of HKEI's approach to ensuring long-term and sustainable value for our stakeholders. During the year, we established a Board-level Sustainability Committee to provide oversight on key ESG-related matters and formalised our Sustainability Framework, demonstrating our commitment to embracing sustainability in our operations.

"Keep going, keep growing" is the motto that captures our sentiment for the future of our business and our city. I thank each and every one of you who continues to stand with HKEI in these challenging times. I am confident that with our determination and can-do spirit, we are making progress towards a greener and more sustainable future.

Wan Chi-tin

Chief Executive Officer
March 2021



Our Business and Approach to Sustainability



HKEI in Brief

Constituted in January 2014, HK Electric Investments is a 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. The 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), commenced operations in 1890 and is one of the longest-serving power utilities in the world. Under a Scheme of Control Agreement (SCA) with the HKSAR Government, HK Electric supplies electricity to more than 583,000 customers on Hong Kong and Lamma Islands through a vertically integrated power-utility operation, including a power station on Lamma Island (known as Lamma Power Station or LPS).

For more than 130 years, we have been powering Hong Kong's growth with safe, reliable, clean and affordable electricity. Our business and approach to sustainability continues to be integral to the city's success. Our Vision, Mission and Core Values guide us in everything we do, reflecting our commitment to serving Hong Kong as a responsible corporate citizen. As a testament to our excellence in sustainable business practices, HKEI has been included in the Euronext Vigeo World 120 Index.

For more information about HKEI and HK Electric, please visit our website www.hkei.hk.

Vision



To excel in the power business in Hong Kong

Mission



- ▶ To enhance shareholder value
- ▶ To deliver excellent customer services and supply reliability
- ▶ To nurture a harmonious and engaged workforce
- ▶ To care for the community we serve
- ▶ To care for the environment in all our activities
- ▶ To drive for efficiency in our operations

Core Values



- ▶ Pursuit of Excellence
- ▶ Integrity
- ▶ Respect & Trust
- ▶ Caring

Our Value Chain

Resources

- ▶ Financial resources
- ▶ Management, employees and business partners
- ▶ Technology and infrastructure
- ▶ Natural resources (particularly fuel for power generation)

Practices and processes

- ▶ Governance practices
- ▶ Stakeholder engagement
- ▶ Sustainability initiatives
- ▶ Innovation
- ▶ Power generation, transmission and distribution
- ▶ Customer services

Outcomes

- ▶ Shareholder value
- ▶ Impact on the environment
- ▶ Power supply reliability
- ▶ Customer satisfaction
- ▶ Contribution to and impact on community
- ▶ Employee wellness, development and satisfaction
- ▶ Operational safety
- ▶ Influence on supply chain

Continuous review
and improvement

Business Profile (as at the end of 2020)



Service territories

Hong Kong Island and Lamma Island

Installed generating capacity

6 coal-fired units: **2,000 MW**
 5 oil-fired gas turbine units: **555 MW**
 3 gas-fired combined-cycle units: **1,060 MW**
 1 solar power system: **1 MW**
 1 wind turbine (Lamma Winds): **0.8 MW**
 Total: **3,617 MW***

Transmission and distribution network

High-voltage circuit length: **444 km**
 Medium-voltage circuit length: **4,000 km**
 Low-voltage circuit length: **2,194 km**
 Total: **6,638 km**

Operations

Number of customers: **>583,000**
 Electricity Sold: **10,134 millions of kWh**

Workforce

Number of permanent employees: **1,713**
 Number of contract employees: **131**

Economic contribution

Total capital expenditure: **\$5,485 million**
 Distributable income: **\$2,830 million**

* To achieve Hong Kong's fuel mix target of around 50% gas generation in 2020, HK Electric not only had to build a new gas-fired unit L10, but also defer the retirement of an old gas-fired unit GT57. Instead of the original schedule of 2020, GT57 will now retire in 2022 when another new gas-fired unit L11 comes into operation. This is an interim measure to achieve government objective. The installed capacity in 2020 without GT57 would otherwise be 3,272 MW.

Sustainability Governance

At HKEI, we believe that sound governance is not only essential for the efficient and transparent operation of our business, it is also integral to achieving our sustainability goals. Our approach to sustainability is built on a robust foundation of corporate governance and high ethical standards based on the principles of openness, integrity and accountability.

Our commitment to sustainability starts at the very top. The Board has overall responsibility for the Group's sustainability strategy, management approach and reporting.

Sustainability Governance Structure



In December 2020, we established a Sustainability Committee at the Board level to oversee sustainability across the Group and advise the Board on implementation of related initiatives. The Sustainability Committee has a primary responsibility for reviewing the related policies and practices, and assessing and making recommendations on matters concerning the Group's sustainable development, as well as sustainability risks and opportunities. For more information, please refer to the Terms of Reference of the Sustainability Committee on our website.

At management level, the Sustainability Management Committee (formerly the Corporate Social Responsibility Committee) supports the Sustainability Committee in fulfilling its responsibilities. The Sustainability Management Committee meets quarterly and is chaired by the CEO. It drives and coordinates the Group's sustainability efforts and promotes understanding of sustainability within the Group.

For the management of sustainability risks, the Board's Audit Committee also assists the Board in ensuring that appropriate and effective risk management and internal control systems are in place.



Sustainability Management Committee



<p>(Rear)</p> <p>Alex Ng Group Legal Counsel and Company Secretary</p>	<p>Francis Cheng Operations Director</p>	<p>Bill Ho General Manager (Corporate Development)</p>	<p>Dennis Wu General Manager (Human Resources)</p>
<p>(Front)</p> <p>Wong Kim-man Chief Financial Officer</p>	<p>Wan Chi-tin Chief Executive Officer</p>	<p>Mimi Yeung General Manager (Public Affairs)</p>	



Sustainability considerations are integrated into every aspect of our corporate culture and business operations—from the Board to management and individual business units. To provide specific and consistent guidance on sustainability matters across the Group, we have formalised our Sustainability Framework that is guided by our Vision, Mission and Core Values and aligned with our Sustainability Policy (previously CSR Policy) and other key corporate policies.

Built on four strategic pillars, the framework incorporates 14 material focus areas to help us translate our values and commitments into measurable actions and progress across all areas of our business.

Our Sustainability Framework

Guided by our **Vision, Mission and Core Values**

Aligned with our **Sustainability Policy** and other **Key Corporate Policies**

Commitment	Objective	Approach
Operating our business in a responsible and transparent manner while supporting sustainable development and meeting the long-term energy needs of our community	Striving to be a world-class electricity supplier, a good corporate citizen and an employer of choice	Integrating sustainability considerations into our operations and engaging with our stakeholders to create shared value

Strategic Direction			
 <p>1. Running a Sustainable Business</p> <p>Ensuring a strong foundation for supporting sustainable development</p>	 <p>2. Sharing our Planet</p> <p>Sustaining a beautiful and liveable planet for our future generations</p>	 <p>3. Serving Hong Kong</p> <p>Making our home a prosperous, smart and caring city</p>	 <p>4. Working with Partners</p> <p>Engaging with our employees and business partners to ensure safe and responsible business operations</p>

Material Areas:			
<p>1.1 Delivering long-term value for our investors through sustainable growth</p> <p>1.2 Upholding high standards of corporate governance and disclosure</p> <p>1.3 Managing risks and opportunities effectively</p> <p>1.4 Building mutual trust with our stakeholders</p> <p>1.5 Fostering a culture of innovation</p>	<p>2.1 Combating climate change</p> <p>2.2 Minimising the environmental impact of our operations</p> <p>2.3 Promoting environmental awareness</p>	<p>3.1 Providing reliable and affordable electricity supply</p> <p>3.2 Delivering excellent customer services</p> <p>3.3 Caring for the community</p>	<p>4.1 Caring for our employees and their families</p> <p>4.2 Improving health and safety performance continuously</p> <p>4.3 Managing our supply chain responsibly</p>

Supporting the United Nations' Sustainable Development Goals, specifically:		
 <p>Goal 7 Affordable and Clean Energy</p>	 <p>Goal 9 Industry, Innovation and Infrastructure</p>	 <p>Goal 13 Climate Action</p>



Materiality

Every year, we conduct a comprehensive assessment to identify material sustainability issues for reporting. This exercise ensures that our disclosures reflect the Group's significant economic, environmental and social impact, and/or are sufficiently important to substantively influence the assessments and decisions of our stakeholders. The materiality assessment is based on the following three-step process and the outcomes help us allocate resources more effectively in order to create additional shared value for the Group and our stakeholders.

Assessment Process

Step 1

Identification of relevant sustainability issues based on the Group's business operations and with reference to local and international sustainability reporting guidelines, while also taking into consideration important incidents and emerging trends

Step 2

Prioritising the sustainability issues identified in Step 1 by determining their relative importance based on the associated impact and risks, as well as our interpretations of the views and expectations of stakeholders through ongoing stakeholder engagement activities

Step 3

Review and endorsement of the materiality assessment outcomes by the Sustainability Management Committee and the Board's Sustainability Committee

Outcomes of Assessment

Identified sustainability issues	Material area(s) in our Sustainability Framework	Identified sustainability issues	Material area(s) in our Sustainability Framework
Most material		22. Learning and development	4.1
1. Compliance	1.2	23. Sustainable use of materials and waste management	2.2
2. Anti-corruption	1.2	24. Notice periods for employees regarding operational changes	4.1
3. Customer privacy	3.2	25. Stakeholder engagement	1.4
4. Operational performance (e.g. supply reliability, plant availability and generation efficiency)	3.1	26. Promoting environmental awareness	2.3
5. Customer health and safety	4.2	27. Water resources conservation and effluent management	2.2
6. Corporate governance	1.2	28. Indirect economic impact (e.g. affordable energy, energy infrastructure investments and local hiring)	1.1, 3.1, 4.1
7. Management of risks and opportunities	1.3	29. Innovation	1.5
8. Asset management and security, including cyber security	3.1	30. Contribution to and impact on local communities	2.3, 3.3
9. Occupational health and safety	4.2	31. Product and services information and labelling and marketing communications	3.2
10. Contingency preparedness	1.2, 4.2	32. Human rights assessment	4.1
11. Customer services	3.2	33. Rights of indigenous peoples	3.3
12. Climate-related risks and actions	1.3, 2.1	34. Human rights training for security personnel	4.1
Material		35. Biodiversity conservation	2.2
13. Employment practices	4.1	Not material	
14. Anti-competitive behaviour	1.2	36. Tax issues	—
15. Child, forced or compulsory labour	1.2, 4.3	37. Freedom of association and collective bargaining	—
16. Impact on air quality	2.2	38. Participation in public policy specifically political contributions	—
17. Non-discrimination, diversity and equal opportunity	4.1		
18. Procurement practices	4.3		
19. Economic performance	1.1		
20. Energy consumption and saving	2.2, 3.2		
21. Supplier sustainability assessment	4.3		



Sustainable Development Goals

We support the United Nations' 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs). These aim to end poverty, protect the planet and ensure peace and prosperity for all people by 2030.

In 2019, we identified three SDGs that are closely aligned with our corporate strategy and business priorities. From among the 17 SDGs, we believe we can make the most significant impact on helping achieve these three SDGs: Affordable and Clean Energy (Goal 7), Industry, Innovation and Infrastructure (Goal 9) and Climate Action (Goal 13).

In 2020, we took the next step of establishing internal targets to help us gauge our progress on the three SDGs.



Our Internal Targets

Goal 7: Affordable and Clean Energy



Internal targets

Status in 2020

Maintain a safe and reliable electricity supply
→ **to maintain better than 99.999% reliability rating**

Achieved
(>99.999% in 2020)

Gain access to diverse and cost-competitive liquefied natural gas (LNG) supplies worldwide to alleviate considerable pressure on tariffs due to increased consumption of natural gas
→ **to commission the offshore LNG terminal in 2022**

Construction works in progress

Provide subsidies to underprivileged households for adopting energy-efficient electrical appliances
→ **to subsidise 4,000 households by 2023**

In progress
(1,570 households subsidised as at the end of 2020)

Increase the use of RE
→ **to increase the aggregate electricity generated from RE sources of HK Electric and its customers to over 3 GWh/year by 2023**

Achieved
(~3.5 GWh in 2020 and the target has been revised to "over 6 GWh/year by 2023")

Provide free energy audits for non-residential customers and subsidies to building owners for implementing energy efficiency enhancement projects
→ **to complete 1,000 audits and subsidise 500 buildings by 2023**

In progress
(420 audits completed and subsidies approved for 214 buildings as at the end of 2020)



New Era of Gas Generation



Goal 9: Industry, Innovation and Infrastructure



Internal targets

Enhance asset integrity (in the face of climate change)
→ to complete anti-flooding enhancement for low-lying substations within 100 m of the northern coastal line of Hong Kong Island by 2021

Deploy smart meters
→ to complete full-scale deployment by 2025

Status in 2020

In progress
(~88% completed as at the end of 2020)

In progress
(~6.7% completed as at the end of 2020)

Goal 13: Climate Action



Internal targets

Replace coal-fired units with gas-fired units
→ to commission three new gas-fired units, L10, L11 and L12, in 2020, 2022 and 2023, respectively

Reduce carbon emissions per unit of electricity sold
→ to ensure yearly average emissions do not exceed 0.6 kg of CO₂e per kWh by 2023

Engage stakeholders on combating climate change and adopting low-carbon lifestyle
→ to organise 1,000 education and promotion activities by 2023

Build capacity in HK Electric's supply chain
→ to update our "Code of Practice for Suppliers" to address climate change concerns in 2020

Status in 2020

L10 commissioned in February 2020; construction works for L11 and L12 in progress

In progress
(~0.71 kg of CO₂e per kWh in 2020)

In progress
(391 activities organised as at the end of 2020)

Achieved
(updated in November 2020)





Running a Sustainable Business

Sharing our Planet

Serving Hong Kong

Working with Partners

Running a Sustainable Business

KEEP ADVANCING





Management Approach

At HKEL, we strive to live up to our Vision, Mission and Core Values by integrating sustainability into every aspect of our operations and corporate culture. This commitment is reflected in our newly-released Sustainability Framework, which is aligned with our Sustainability Policy and other key corporate policies and is supported by our management systems as mentioned throughout this report.

Our corporate governance processes and Sustainability Framework ensure operational transparency, which underpins business resilience. Good governance and sustainable business practices go hand-in-hand; enhancing the ability of our business to innovate and adapt in today's world of heightened risk and uncertainty.

The Board is the highest governance body of the Group. The Board's Sustainability Committee supports the Board in overseeing sustainable development across the Group, while the Board's Audit Committee assists the Board in ensuring that appropriate and effective risk management and internal control systems are in place. At management level, the Sustainability Management Committee and the Risk Management Committee, both chaired by the CEO, support the Sustainability Committee and Audit Committee respectively in fulfilling their responsibilities. The CEO also leads an Innovation Steering Committee to promote new ideas that will achieve better quality outcomes across our organisation.

We are focused on creating long-term value for our investors and other stakeholders, and maintain close dialogue with them to understand their expectations. We pursue sustainable development opportunities through prudent investment in appropriate technologies in order to deliver reasonable returns for our investors while ensuring an affordable, world-class power supply to our customers. In response to climate change and other concerns from our stakeholders, we work closely with them on Hong Kong's transition towards a green economy as well as a smart and caring city.

Inspiration from
Nature's Resilience

Miscanthus floridulus

Resistant to excessive heat, drought and strong winds, this highly adaptable grass species can thrive almost anywhere, including wastelands with infertile soil.



Sustainable Long-term Growth

Through HK Electric, HKEI has consistently supported the sustainable development of Hong Kong by delivering safe, reliable and affordable electricity while minimising the impact of our operations on the environment. Recognising the threat posed by climate change, we welcome the Government's decision to strive for carbon neutrality in Hong Kong by 2050.



HK Electric –
Your Partner
for a Low-
carbon Future

The offshore LNG terminal, which will enhance the security of our fuel supply and help mitigate the pressure of rising fuel costs associated with coal-to-gas transition for power generation, exemplifies our pragmatic and prudent approach to long-term investment.

We are guided by the following long-term strategies to sustain our Vision of continuing to excel in the power business while combating climate change:

World-class Power for a World-class City

Our priority is to maintain world-class supply reliability and customer service. At the same time, we are investing in Hong Kong's future through various decarbonisation initiatives, such as coal-to-gas transition for power generation, promoting local renewable energy (RE) and electric vehicles (EVs), and supporting our customers to participate in energy efficiency and conservation (EE&C) programmes. We are also innovating and deploying new technologies to help transform Hong Kong into a smart city. We look forward to the forthcoming update on Hong Kong's Climate Action Plan, which we expect to provide clear direction for us to commit resources for long-term decarbonisation.

Steady Growth in our Asset Base

Our ongoing investment in power generation, transmission and distribution facilities reflects pragmatic decision-making. All expenditures must support our goals of maintaining reliability, enhancing efficiency and improving customer services while conserving the environment with low-emissions energy sources. These investments will enable steady growth in our asset base, which in turn will generate stable and growing returns to our long-term investors.

Prudent Financial Management and Efficient Operations

We must maintain close dialogue with our stakeholders to ensure that the energy needs of our society continue to be met. In order to deliver reasonable returns for our investors and affordable electricity for our customers, we maintain an optimal capital structure with strong liquidity and strive continuously to minimise our operating costs, including fuel costs.

Corporate Governance Practices

We operate within a framework of corporate governance processes, guidelines and policies that are aligned with the Corporate Governance Code set out in the Listing Rules of the Hong Kong Stock Exchange. We are committed to upholding the highest ethical standards aligned with the principles of openness, integrity and accountability. This commitment is essential not only for ensuring efficiency and transparency in our operations, but also for attracting investment, enhancing shareholder value and protecting the rights of our shareholders and other stakeholders.

In July 2020, the Independent Commission Against Corruption (ICAC) completed its review on "Installation and Reading of Electricity Meters" with full cooperation and assistance from our responsible business units and Internal Audit Department. Actions have been taken by respective business units to further enhance the meter installation and reading process in accordance with ICAC's recommendations. In September, we launched our Anti-money Laundering Policy and Sanctions Compliance Policy to enhance the Group's existing governance framework by establishing guidelines and processes for systematic assessment and management of these kinds of risks.

During the year, a seminar relating to anti-corruption was provided to the Directors to keep them informed

of current trends and issues. Over 240 employees attended online training to improve their awareness and refresh their understanding of the Prevention of Bribery Ordinance and corresponding company policies and guidelines on anti-corruption. More than 70 new hires completed similar training as part of their Orientation Programme.

In 2020, there were no instances of material non-compliance in the Group. There were also no ongoing or concluded legal cases regarding corrupt practices brought against HKEI or its employees.

For more information about our corporate governance, please refer to our [Annual Report](#).

Key Governance Practices

Risk management 	<ul style="list-style-type: none"> ▶ Enterprise Risk Management Framework (overseen by our Risk Management Committee) to identify, assess, mitigate and monitor key business, financial, operational and compliance risks, including top corporate risks and material emerging risks ▶ Compliance Framework (overseen by our Compliance Committee) to manage compliance obligations on a company-wide basis ▶ Crisis Management Plan to address emergencies, with each business unit also responsible for implementing its own respective contingency plans to maintain business continuity
Business ethics 	<ul style="list-style-type: none"> ▶ Code of Conduct supplemented by comprehensive human resources policies and procedures to provide guidance for our employees on ethical, human and labour rights issues, including the reporting and treatment of unethical behaviour ▶ Fraud Prevention and Awareness Policy to minimise exposure to fraud risk ▶ Various whistleblowing channels for employees and external parties to report actual or potential illegal acts and violations of the Code of Conduct ▶ Monitoring mechanism to review compliance with anti-corruption laws and the Code of Conduct, including a biannual anti-bribery control assessment that evaluates the effectiveness of controls for managing bribery risks ▶ Code of Practice for Suppliers to ensure respect for human rights and the elimination of child or forced labour throughout our supply chain

Note: An Anti-Fraud and Anti-Bribery Policy and a Human Rights Policy were formally launched in February 2021.

Fighting the Virus -

Protecting Our People and
Ensuring Business Continuity
in a Time of Crisis



Since early 2020, the COVID-19 pandemic has brought unprecedented challenges for us all. As a public utility, it is vital for HK Electric to remain resilient in the face of this unfolding crisis. On 7 February 2020, we elevated our company response to the emerging public-health situation to Emergency Level, triggering various measures under our "Contingency Plan for COVID-19" in order to reduce risk of infection to our employees and other workers while maintaining our operations and services. Our "Generic Plan for Dealing with COVID-19 Confirmed Cases" also came into effect on 14 April 2020. To cope with the changing situation throughout the year, our Contingency Plan has been updated and refined from time to time.

Throughout the year, we have implemented extensive precautionary measures and contingency planning to mitigate the risks. Notwithstanding three isolated COVID-19 cases among our employees and contractor personnel, we have avoided secondary infections in our workplaces and maintained a record-high supply reliability in 2020. We will continue to implement effective and flexible business strategies that will minimise risk in our operations and keep our business resilient in the long term.

Personal protection protocols



- ▶ Distribution of face masks, face-mask inner supports, protective eyewear and hand sanitisers to employees
- ▶ Regular cleaning of company premises
- ▶ Body temperature monitoring at entrances of office buildings and LPS
- ▶ Compulsory wearing of face masks in the workplace and on company transport
- ▶ Distribution of personal computer keyboard and mouse sets to employees who have to use shared computer facilities

Socially-distanced interactions



- ▶ Adoption of video conferencing and online training to minimise inter-personal contact
- ▶ New workflows to eliminate the exchange of physical documents in favour of softcopies
- ▶ Prompt arrangement for and new code of practice on work-from-home
- ▶ Flexible working-hours and car-pooling arrangements to reduce employees' exposure on public transport

Segregated work teams and contingency planning



- ▶ Segregation of functional units into two or more work-teams
- ▶ Social-distancing arrangements in place for different teams
- ▶ New protocols for socially-distanced handovers between shifts
- ▶ Temporary accommodation arrangements for mission-critical employees
- ▶ Regular drills to test business units' preparedness for handling confirmed COVID-19 cases, including work-teams undergoing isolation/quarantine simultaneously
- ▶ Review of supply chains to ensure sufficient supply of equipment, materials and spare parts, including personal protective equipment and cleaning products

Effective communications



- ▶ Emergency Hotline for employees to make reports or enquiries concerning the pandemic
- ▶ Info Hub for COVID-19 to convey useful information to employees in the form of in-house educational videos, posters, news and announcements through our Intranet portal and My HKE app

Sustainability Risks and Opportunities

In today's environment of heightened risk and prolonged uncertainty, it is more important than ever for HKEL's Enterprise Risk Management framework to encompass a wide range of economic, environmental and social risks, including emerging risks for our business. The COVID-19 pandemic was unexpected, and yet we have responded in a controlled and measured way to mitigate its impact on material focus areas within our Sustainability Framework, such as maintaining reliable, affordable electricity supply and excellent customer service, caring for the community and our employees, and improving health and safety performance.

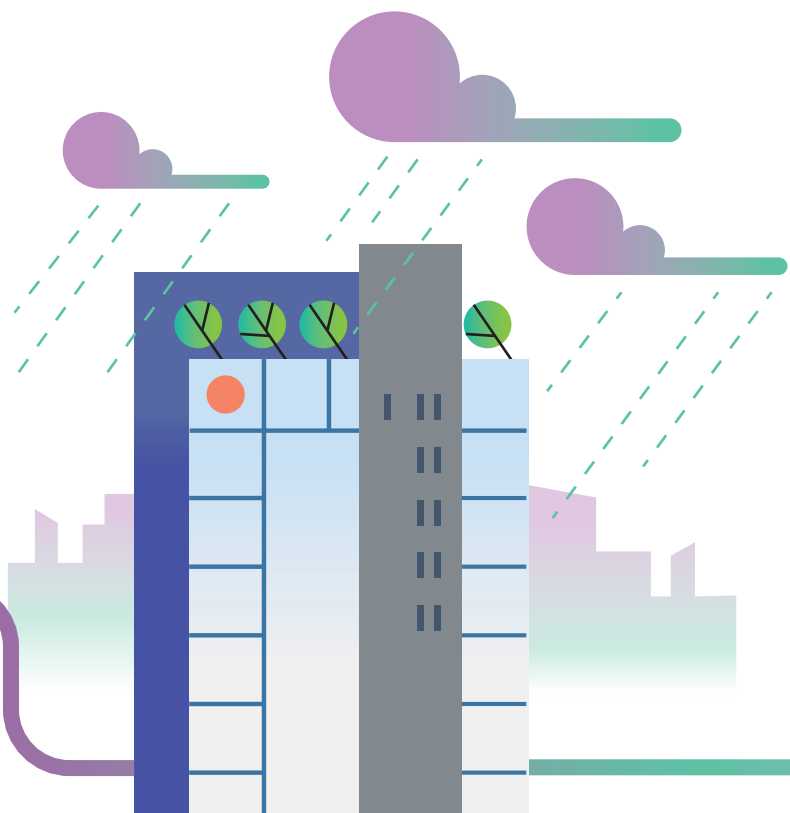
With foresight and early action, we can transform potential risks into opportunities for our organisation, as well as our society. Climate change, for example, is one of the greatest challenges facing Hong Kong and the world today, but the prospect of transitioning to a low-carbon economy presents tremendous opportunities. We must actively cultivate stakeholders' trust by engaging with them to find and implement solutions.

For more information about our risk management approach, relevant risk factors and corresponding strategies, please refer to our [Annual Report](#).

How We Manage Climate-related Risks and Opportunities

The Financial Stability Board has established the Task Force on Climate-related Financial Disclosures (TCFD) to develop recommendations for more effective climate-related disclosures that allow organisations to better manage climate-related risks and opportunities, and empower financial markets to channel investment towards sustainable and resilient solutions, opportunities and business models.

In 2020, we conducted a gap analysis to evaluate our current practice against the TCFD recommendations. The following provides an overview of how we manage climate-related risks and opportunities in terms of the four thematic areas of the TCFD recommendations. We will continue to review and conduct studies on this matter in order to improve our management approach and disclosures.

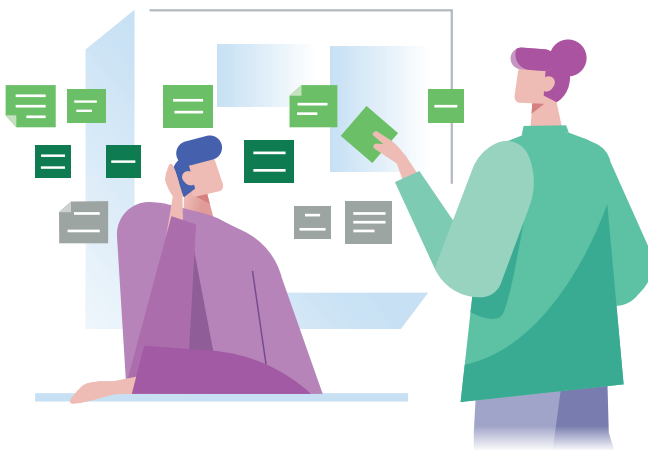


Governance

The Board has overall responsibility and has established a Board-level Sustainability Committee for overseeing the Group's sustainability issues including climate-related issues. At management level, there is a Sustainability Management Committee chaired by the CEO, which supports the Sustainability Committee for development and implementation of sustainability initiatives, including assessing and managing climate-related risks and opportunities. Please refer to the previous chapter for more information on our sustainability governance.

Strategy

The megatrend of transitioning to a low-carbon economy poses significant transition risks to the Group's electricity business, particularly the challenge of helping achieve Hong Kong's 2050 carbon-neutral target. While our SCA with the Government for 2019-2033 provides stability in the areas of financial and service regulation, the Government's strategies and policies on air quality, electricity sector decarbonisation for climate change mitigation, EE&C and electricity market competition are among the factors affecting the Group's results and growth in the medium to long term. Moreover, failing to address increasing expectations and demands from the public for low-carbon energy and supporting services on EE&C may give rise to reputational risks for the Group.



To address these risks and seize associated opportunities to develop low-carbon electricity business while contributing to the global effort to combat climate change, the Group has been investing in decarbonisation of its electricity business through coal-to-gas transition and adoption of RE technologies in power generation. To ensure the commercial and operational viability of coal-to-gas transition, we have engaged in a joint venture to develop an offshore LNG terminal. We have also been promoting EE&C, RE, EVs and low-carbon living in the community and have launched the Smart Power Services to provide a suite of new and upgraded funding and service schemes in these areas, as well as embarking on the full deployment of smart meters for our customers. All these are made possible by the well-structured SCA that provides a favourable framework for achieving the Government's energy policy objectives.

On the other hand, extreme weather and gradual changes in weather patterns caused by climate change pose acute and chronic physical risks to our electricity infrastructure and could result in considerable financial impact on our business. To mitigate these risks, we will continue to build climate resilience into our power infrastructure in a strategic and systematic manner.

More information about the above strategies, which are covered under our 2019-2023 Development Plan, can be found in the chapters on [Sharing our Planet](#) and [Serving Hong Kong](#). Looking ahead, we will offer our full support to the Government on the best way forward to achieve Hong Kong's long-term decarbonisation target.

Risk Management

Climate-related risks will be regularly reviewed by the Sustainability Committee and Sustainability Management Committee. The identification, assessment and management of these risks are also incorporated into our Enterprise Risk Management Framework. The framework provides top-down and bottom-up approaches to identify, assess, mitigate and monitor key risks at corporate and operating unit levels in a pro-active and structured manner. More details are available in our [Annual Report](#).

Metrics and Targets

We disclose our carbon and greenhouse gas (GHG) emissions through our Sustainability Report and in response to CDP's annual survey. Recognised by the Science Based Targets initiative, HK Electric has established a target for reducing carbon emissions per unit of electricity generated by 30% in 2022 compared with the 2005 level.

We have also developed a set of internal targets corresponding to three United Nations' SDGs that are material to our business, namely, Affordable and Clean Energy (Goal 7), Industry, Innovation and Infrastructure (Goal 9) and Climate Action (Goal 13), as detailed in the previous chapter.

In addition to reporting direct GHG emissions from our operations, starting from 2021 we plan to report indirect GHG emissions from material categories of our value chain in accordance with ISO 14064:2018.

Stakeholder Engagement

At HKEL, we acknowledge the impact of our daily operations and business strategies on our stakeholders. We believe in open and effective communication so that through meaningful exchange of ideas and dialogue, our stakeholders' views and expectations will continue to shape the growth and development of our business, while we can also seek their understanding of our aspirations, plans and relevant constraints.

As part of our stakeholder engagement process, we have identified 10 key stakeholder groups with due consideration of their level of dependency and influence on our business. We engage regularly with representatives of each group through various channels.

Engaging with our Stakeholders



- ▶ Meetings
- ▶ Conversations
- ▶ Enquiries



- ▶ Visits
- ▶ Talks
- ▶ Seminars
- ▶ Workshops
- ▶ Exhibitions



- ▶ Advisory services
- ▶ Community programmes



- ▶ Consultation panels
- ▶ Focus groups
- ▶ Liaison teams



- ▶ Surveys
- ▶ Suggestion schemes



- ▶ Mobile apps
- ▶ Intranet
- ▶ Website
- ▶ YouTube channel
- ▶ Facebook pages



- ▶ News
- ▶ Reports
- ▶ Other publications

Stakeholder groups	Why are their views important?	Usual engagement channels
Customers	Electricity is a daily necessity for our customers.	
Shareholders	We are accountable to our shareholders.	
Employees	We have a responsibility to care for our employees who devote much of their time to us and we depend on them for our success.	
Business partners	Having common sustainability values is important in business relationships.	
Local communities	We are committed to giving back to the society we serve and minimising the impact of our operations on our neighbouring communities.	
Green groups and social NGOs	They are our key sustainability partners.	
Education sector	We support green education particularly for young people.	
Engineering sector and professional institutions	They are our key industry partners.	
Media	The media is an important partner in our communication with the public.	
Authorities and legislators	They have a regulatory role in our utility business.	

In 2020, we continued to engage meaningfully with our stakeholders despite the challenges posed by social distancing during the COVID-19 pandemic. To protect the health of all concerned, we switched to electronic communication as far as possible, making full use of virtual conferencing technology and social media.

Examples of Engagement Activities with Different Stakeholder Groups

- ▶ Video presentation to our Customer Liaison Group
- ▶ Annual General Meeting with live webcast for shareholders
- ▶ 16 focus group meetings with employees and 11 Joint Consultation meetings
- ▶ Annual Safety, Health and Environment Day for business partners
- ▶ Videos, messages and calls to keep community updated on corporate development
- ▶ Videos and Facebook posts to promote eco-heritage with NGOs
- ▶ Online training and activities for schools
- ▶ Continued collaboration in the Belt and Road advanced professional development programme
- ▶ Press releases, messages and calls to keep media informed on corporate initiatives
- ▶ Onsite sharing with government officials on the commissioning activities of new gas-fired unit L10
- ▶ Participation in the annual tariff review at the Legislative Council



Internal Education Campaign on Sustainability and CSR



In May 2020, we launched a 18-month internal education campaign to enhance our employees' awareness of HK Electric's sustainability and CSR commitments and performance. The CSR Corner on our Intranet portal has been enriched to feature videos, articles and games on CSR topics. We also publish a "CSR Quote of the Week" to stimulate thought, discussion and actions.

CSR Champions were appointed to help drive this campaign in their respective line divisions, relaying views and suggestions for continuous improvement.

A pre-campaign survey was conducted to gauge colleagues' understanding of sustainability and CSR. The findings, highlighted below, will form the basis for more training initiatives in 2021.

- ▶ Of the 1,000 survey respondents, **99.5%** believe HK Electric cares about CSR.
- ▶ **Environmental Protection, Health & Safety** and **Compliance** are the top 3 areas colleagues consider they can support.
- ▶ Topics that respondents want to know more about via the campaign include **Environmental Protection, Combating Climate Change** and **Health & Safety**.

Innovation

HK Electric defines innovation as any novel approach that helps us achieve business objectives more quickly or cost-effectively, thereby giving rise to better quality outcomes. Continuous innovation is essential for charting the course of our business in a rapidly changing world. We therefore seek to innovate continuously across all areas of our business as an integral part of our corporate strategy.

Our Innovation Steering Committee supports and manages development of innovative ideas, including new apps and technologies such as big data and AI for streamlining our work processes, improving performance and enhancing customer experience. We recognise that our people are the driving force behind innovation, so we strive to acknowledge and reward our employees' contributions and to nurture their talent by fostering collaborative relationships built on mutual respect and trust. With their first-hand knowledge and experience of our business, employees are in the best position to help us identify areas for improvement.

At the heart of HK Electric's innovation culture is an online community linked by an internal website "Inno Hub," which brings together diverse perspectives and experiences, and also helps disseminate relevant information about events, publications and new technology. Since its launch in 2018, Inno Hub has captured over 415 new ideas at various stages along the innovation value-chain, ranging from ideation, selection and scoping to delivery, lessons learned and dissemination. Some business units have also established smaller, more focused groups such as the TechWatch Team and online Innovation Forum that are dedicated to identifying and advancing good ideas within their specific business areas.



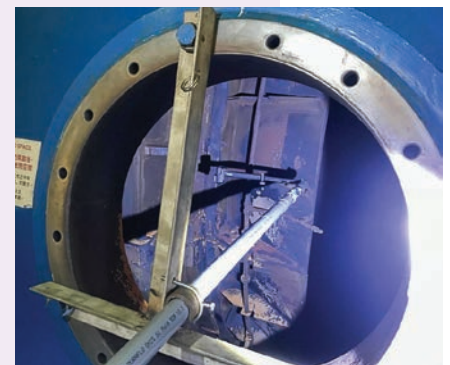
We commission a Virtual Reality Training Centre to enhance safety training for employees.

In 2020, 27 innovation projects were newly implemented and 34 apps were launched to enhance operational efficiency and safety, customer and community services, and environmental performance. During the year, six teams from various business units received awards for innovative ideas that help reduce injuries and accidents as part of our "Continuous Safety Improvement and Innovation Scheme 2019/2020." The scheme will be extended to cover all aspects of our operations in 2021. Please also refer to the case story in the chapter on [Sharing our Planet](#) to learn about our award-winning project that utilises AI for energy saving.

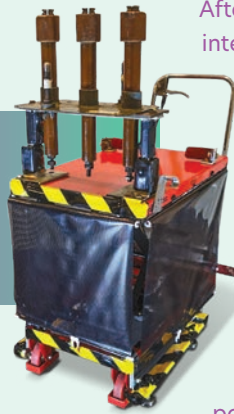
Safer and More Efficient Equipment Inspection

At LPS, we carry out visual inspections on the last stage blades of steam turbines as part of our routine outage maintenance programme. In the past, we have erected scaffolding inside the steam turbine casing for engineers to inspect the blades. This was time-consuming and potentially dangerous.

In 2020, we adopted a different approach by using a remote-controlled camera on a flexible arm to take high-resolution photos of the blades. This new method saves time and significantly reduces the risk of injury to our colleagues.



Innovative Test Plug Racking Device for High Voltage Switchgear



After commissioning or maintenance work, it is important to test the integrity of insulation on High Voltage (HV) equipment. When carrying out this task, an operator will manually insert a 9-kg test plug into the narrow Circuit Breaker (CB) compartment of a live HV switchgear panel. There are various safety risks involved, including the potential for injury caused by manual lifting and exposure to flashover from live spouts.

To mitigate these risks, our team has developed an innovative new racking device that makes it possible for an operator to insert the test plug from outside the CB compartment without the need for manual lifting. The device has various safety features such as position limiters, which facilitate precise and safe installation of the test plug. This project won the OSH Enhancement Programme Award - Bronze Award in the 19th Hong Kong Occupational Safety & Health Award.

Our Energy Management System and Distribution Management System monitor the power system network in real time and also regulate the system status whenever necessary. To provide high quality power supply, a real-time control application called Intelligent Volt-VAR Regulation (IVAR) has been developed to maintain stable voltage to customers.

In 2020, we successfully completed a collaboration proof-of-concept project with the Hong Kong University of Science and Technology to test the viability of applying neural network-based machine learning for forecasting load trend. Our objective is to improve reactive power control in zone substations in order to reduce power loss. Based on the positive results of the project, full integration of the new forecast model with IVAR will be implemented in 2021.



Using Neural Network
and AI to **Reduce Network
Power Loss**



Real-time Monitoring System for Ground Settlement, Vibration and Tilting of Structures at LPS

Traditional methods for monitoring site movement are time-consuming and labour-intensive in a mega-scale project like power plant construction. It normally takes a team of skilled surveyors 2-3 days to complete a movement survey and another 1-2 days to compile the survey report. As a result, reports become outdated by the time they reach our engineers, diminishing their value in terms of providing real-time reporting to facilitate quick response and decision making.

In 2020, we integrated IT cloud technology and Global Positioning System (GPS) to equip a series of real-time ground movement sensors on critical generation plants and buildings at LPS. The sensors are powered by solar panels, and can precisely record 3-D positioning by 24-hour communication with GPS satellites. The sensors send and save their position data in the cloud, thereby enabling our engineers to access 3-D status of the plants and structures in real time.

Case Story

The Smarter Way to Care and Share

HK Electric launched the "Care and Share" SME Caterers Subsidy Scheme (the Coupon Scheme) in early 2020. The programme provides dining coupons in order to offer relief to families in need while helping the city's SME eateries cope with challenging economic circumstances. Following the onset of the COVID-19 pandemic, we resolved to expand and improve the Coupon Scheme using technology.

Coverage:

23 collaborating NGO centres	>220 participating SME eateries
40,000 needy families	800,000 dining coupons at \$25 each

Savings achieved:

- **~80,000 man-hours**
(HK Electric)
- **~17,000 man-hours**
(collaborating NGOs and participating SME eateries)
- **>110,000 pieces**
of A4 paper
- **~300 kWh**
of energy for printing/scanning
- **~3,000 kg**
of carbon emissions

Robotic Process
Automation (RPA)
digital solution

Data
analytics and
visualisation

- Keep portfolio
of NGOs
- Keep portfolio
of SME eateries

*Keep track
of each
dining
coupon's
digital
journey*

Group
Finance
Division

Disbursement

SME Eateries

3rd party Coupon
Redemption App

eConnect Coupon
Distribution App

NGO centres

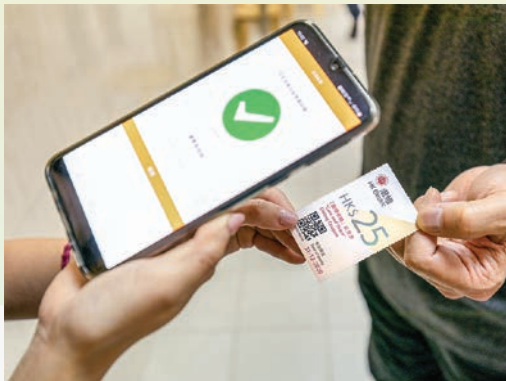
Beneficiaries

Challenges and Key Considerations

The Coupon Scheme was the first of its kind for HK Electric and presented considerable challenges for us to overcome. The logistics of the scheme were complicated because it involved numerous stakeholders including NGO centres, SME eateries and beneficiaries. The timeframe from the decision to establish the Coupon Scheme to its roll-out was extremely tight. The limitation of manpower resources of both HK Electric and our NGO partners was also a challenge.

Given the high value of this scheme totalling \$20 million, it is critical that we ensure the accuracy and integrity of all operational aspects. Traditional methods of checking and verifying each step in the process would require tremendous effort and resources.

In addition to ensuring that the coupons get into the hands of beneficiaries as quickly as possible, we are determined to minimise the time it takes for SME eateries to receive disbursements in exchange for the coupons used in their establishments so that they can maintain a healthy cash-flow.



Thanks to the innovative ideas of our colleagues and close collaboration among the working teams, this project was completed in a very tight timeframe, paving the way for wider deployment of RPA in HK Electric's operations. It is a good example of how innovation can contribute to Hong Kong's transformation into a smart city.

Raymond Choi

General Manager (Customer Services)



We hope every beneficiary will use the dining coupons to enjoy a meal at the eatery of his/her choice, so we have invited a wide variety of SME eateries with different cuisines to participate in the scheme.

Leung Wai-kin

Head of Customer Business Development

An All-round System to Streamline Process and Enhance Customer Experience

To tackle the challenges, we devised an innovative digital solution using advanced robotic process automation (RPA), data analytics and data visualisation. Our engineers developed a mobile app to track the distribution of 800,000 dining coupons to beneficiaries by our NGO partners. Using RPA, we can process and analyse this data in real-time; combining it with data from a third-party mobile app that tracks dining coupon usage at SME eateries to create a set of dashboards for visualising each dining coupon's digital journey. This helps us monitor and manage the scheme more efficiently and effectively.

In the process, we have integrated various e-platforms including eConnect (a platform for in-house development of mobile apps), SharePoint (for keeping portfolios of NGOs and eateries) and Tableau (for data analytics and visualisation). This creates a seamless customer experience while saving valuable time and resources and ensuring the accuracy and security of our data. Additionally, we were able to disburse subsidy payments to participating SME eateries on a weekly basis.





Running a Sustainable Business

Sharing our Planet

Serving Hong Kong

Working with Partners

Sharing our Planet

KEEP GREENING





Management Approach

As one of Hong Kong's two electricity utilities, we recognise our responsibility to minimise the impact of our operations on the environment, particularly in order to help combat climate change and improve local air quality.

HK Electric's commitment to safeguarding the environment is articulated in our Environmental Policy, which focuses on low-carbon power generation and promoting smart, renewable energy technology in line with the Government's long-term decarbonisation strategy.

Environmental considerations are fully integrated into our business planning and operations across all areas of our business with coordination from HK Electric's Environment Committee. We have robust environmental management and energy management systems in place that are certified to international standards ISO 14001 and ISO 50001 respectively, and we strive for continuous improvement against measurable targets. In 2020, we formulated 50 environmental management programmes under our environmental management systems.

We also work to prevent and mitigate adverse environmental impact from our operations in a systematic way through early environmental impact assessments, appropriate mitigation measures and regular environmental monitoring and audits.

Environmental stewardship cannot succeed in isolation. We align closely with our stakeholders such as the Government, business partners and NGOs to achieve shared aims. In addition to helping our customers conserve energy and make responsible choices, we actively reach out to the public to enhance environmental awareness through education campaigns.

Inspiration from *Nature's Resilience*

Lemmaphyllum microphyllum

Winding its way around rocks and trees, this epiphytic fern is sometimes known as an "air plant" because it does not root in soil. Thick and fleshy leaves absorb moisture from the air and fall off to conserve water during the dry season.



Climate Action and Clean Air

The global community has been working together to combat climate change under the Paris Agreement. In support of this, the HKSAR Government has announced that Hong Kong will strive to achieve carbon neutrality before 2050 and the city's Climate Action Plan will be updated to set out more proactive strategies and measures for reducing carbon emissions.

HK Electric supports Hong Kong's decarbonisation targets and related initiatives such as the Low Carbon Charter led by the Business Environment Council and Hong Kong Green Building Council's Advancing Net Zero programme. In addition to decarbonising our power generation, we are actively promoting EE&C, RE and EVs, and bolstering our network's resilience to climate change through robust planning and precautionary measures.

Full disclosure about our carbon reduction strategies and performance can be found in our annual response to CDP's Climate Change survey. CDP is an international initiative helping companies and cities worldwide disclose their climate impact responsibly.



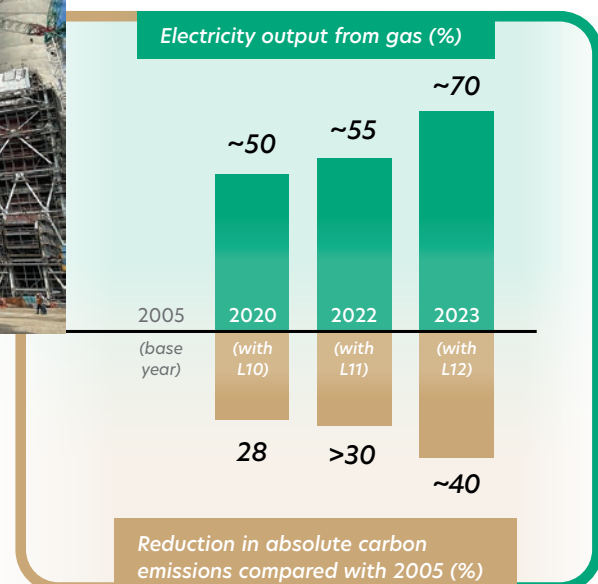
From Coal to Gas

Decarbonising Power Generation

Switching from coal to natural gas provides a clean, reliable and cost-effective way to reduce carbon emissions. We are progressively phasing out coal-fired generation at LPS in favour of highly efficient gas-fired combined-cycle technology.

In February 2020, we commissioned L10, which is the first new gas-fired unit to be completed as part of our 2019-2023 Development Plan. Over the year, power generated from natural gas comprised approximately 50% of total output from LPS; increasing from around 30% in 2019. As a result, the carbon intensity of our power supply declined to 0.71 kg of CO₂e per kWh, compared with 0.81 kg/kWh in 2019.

Increasing Gas-fired Generation Ratio



By 2023, when the other two new gas-fired units L11 and L12 are in operation, gas-fired power will account for around 70% of the total output from LPS, resulting in a reduction of absolute carbon emissions by approximately 40% compared with 2005. Beyond 2023, we have capacity to develop additional gas-fired units within the existing site at LPS. It is possible for us to achieve 100% gas-fired electricity output in the next decade subject to the development of Hong Kong's decarbonisation strategy.



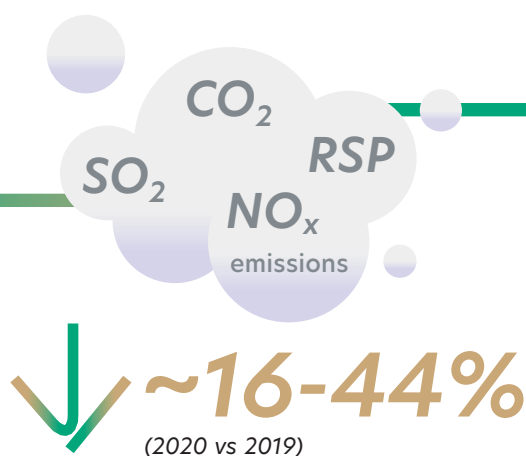
To ensure the commercial and operational viability of coal-to-gas transition, we are building an offshore LNG terminal using "Floating Storage and Regasification Unit" technology in partnership with CLP Power. The terminal will enhance the security of our fuel supply at LPS by creating a new channel to receive natural gas from around the world. Project construction began in November 2020, and is on schedule for completion in 2022.

Moving forward, we are working closely with the Government to introduce low-carbon energy sources and carbon reduction technologies in line with the long-term interests of our customers and all stakeholders. We will take heed of the further development of Hong Kong's Climate Action Plan. Clear direction on the city's long-term decarbonisation strategy is important for our strategic planning and to ensure commitment of necessary resources.

Improving Local Air Quality

In 2020, LPS complied with all emissions allowances specified by the Government. To reduce emissions of sulphur dioxide (SO₂), nitrogen oxides (NO_x) and respirable suspended particulates (RSP) as much as practically possible from our operations, we consume low-sulphur coal and implement advanced emission reduction systems, such as flue gas desulphurisation and low-nitrogen-oxide combustion for our remaining coal-fired units.

The new gas-fired units at LPS feature advanced emissions control technology known as Selective Catalytic Reduction. Combined with other efficiency enhancements, this technology will contribute to sustaining the declining trend in emissions of greenhouse gases and other air pollutants.



More Gas-fired Units in the Pipeline



Due to some challenges arising from disruptions in the supply chain and onsite social-distancing restrictions due to the COVID-19 pandemic, we are experiencing some delay in the construction of L11 and L12—the other two new gas-fired units under our 2019-2023 Development Plan. Yet we still expect to commission these units in 2022 and 2023 respectively.

Construction of the L11 main station building was substantially completed in 2020. Power-train equipment for the unit, comprising the gas turbine, generator and steam turbine, were successfully put on base in September. All critical pressure parts and steam drums of the Heat Recovery Steam Generator were fully installed in November.

For L12, engineering design and shop fabrication of major equipment progressed as scheduled. Construction of the main station building commenced in December.



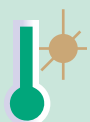


Green electricity from RE sources of HK Electric and its customers

~3.5 GWh

↑ >50%
(2020 vs 2019)

Adapting to Climate Change



Longer periods of higher ambient temperature

- ▶ Stringent requirements on reliability for new generation, transmission and distribution facilities and equipment in high ambient temperature
- ▶ Conversion of 11-kV open-ring distribution feeders to 22-kV closed ring feeders that have more margin and greater resilience against high ambient temperature



Stronger typhoons; more powerful thunderstorms

- ▶ Underground and submarine cables for nearly our entire transmission network
- ▶ Typhoon emergency teams on standby to undertake operations and repairs for different severity levels
- ▶ Dedicated IT reporting platform with mobile applications for effective coordination of emergency response
- ▶ Decentralised storage of critical spares



Rising sea levels; more erratic rainfall

- ▶ Anti-flooding systems at LPS and higher ground-level design standards for new generating units
- ▶ Flooding alarms, bund walls and sump pumps at substations subject to flooding risk from storm surge
- ▶ Stringent anti-flooding requirements for new substations vulnerable to storm surge
- ▶ Advice for property managers in commercial and residential buildings on installing anti-flooding systems in their switch rooms with high flooding risk

Supporting EE&C, RE and EVs

We believe that EE&C, RE and EVs will continue to play an integral role in reducing our city's emissions and improving local air quality.

HK Electric introduced wind power in 2006 and solar power in 2010 to its power generation profile. We operate an 800-kW "Lamma Winds" turbine, as well as an 1-MW solar panel system on Lamma Island. In 2020, these systems generated more than 0.8 and 1.1 GWh of green electricity respectively. We are currently exploring other large-scale local RE projects, such as an offshore wind farm off Lamma Island.

At the same time, we recognise there are many important opportunities to work closely with customers to promote RE technologies, EE&C and EVs. Please refer to the chapter on [Serving Hong Kong](#) for more information about our Smart Power Services on these aspects.

Strengthening Climate Resilience

Climate change poses acute and chronic physical risks for Hong Kong. We are helping bolster the climate resilience of our operations and our city's power supply by conducting regular operational reviews, assessing short and long-term climate risks, adopting flexible and resilient systems and designs, and implementing timely enhancement measures.

We constantly evaluate and enhance our contingency plans and emergency procedures through frequent practice drills and regular reviews. Our ongoing campaign to deploy smart meters throughout our network will help us map electricity supply outages and improve data collection for restoring services in adverse weather conditions.



Responsible Resource Management

At HK Electric, we recognise that the planet's natural resources are limited and must be conserved. In addition to implementing energy saving strategies, we cultivate a culture of environmental stewardship among our employees based on the principles of 4Rs: Reduce, Reuse, Recover and Recycle.

In 2020, we worked to minimise environmental impact and reduce consumption of natural resources while balancing environmental considerations with the need to enhance hygiene practices during the COVID-19 pandemic.

Energy Saving

- ▶ EnergywiSe Certificate
- ▶ Energy Saving and 4T Charter
- ▶ Charter on External Lighting



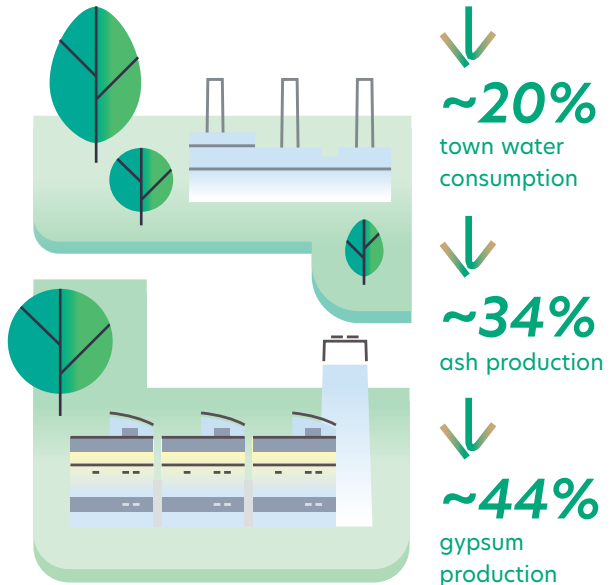
HK Electric participates in the "Hong Kong Energy Evolution Exhibition" organised by the Construction Industry Council to help showcase the development of Hong Kong's energy industry and educate the public about climate change mitigation by reducing emissions.

Water Resources

- ▶ Let's Save 10L Water Campaign



Gas-fired generation ratio at LPS
(2020 vs 2019)



Energy Saving Opportunities

It is well recognised that the vast majority of energy saving opportunities for Hong Kong arise in our built environment. HK Electric leads by example with energy saving targets for its main office buildings. In 2020, we continued to implement energy saving measures, including upgrade of mechanical ventilation and air-conditioning systems at LPS to further improve thermal insulation and increase efficiency. We also installed additional energy meters in our buildings to enhance energy monitoring and fine-tune our energy saving plans.

Conserving our Water Resources

At LPS, smart water meters help us monitor water use in real time so we can identify areas for saving water. In 2020, we collected more than 123,000 m³ of rainwater and plant processing water for reuse. This helps reduce our consumption of fresh water while reducing wastewater discharge. We also have wastewater storage and treatment facilities to recycle and reuse wastewater from bore piling work during ongoing development of our new gas-fired units.



Waste Management

- ▶ *WastewiSe Certificate*
- ▶ *Food Wise Charter*
- ▶ *FoodWaste Lean & Green Label Scheme*
- ▶ *Green Event Pledge*

Managing our Waste Responsibly

We produce various types of waste in our operations, and dispose of all waste responsibly in line with relevant laws and regulations. Hazardous waste such as waste oil is handled by licensed contractors under a trip-ticket system.

Ash and gypsum are two non-hazardous by-products of coal-fired power generation. In 2020, we supplied 154 kT of ash and 39 kT of gypsum to third parties as inputs for industrial production. Of the 45 kT of construction waste generated from our major construction projects, about 98% was recycled for use as public filling. At LPS, we also convert woody garden waste into nutrient-releasing mulch for use as fertiliser onsite.

Wherever possible, we seek out opportunities to reduce, reuse and recycle. In our staff canteens, for example, we have eliminated disposable tableware, plastic straws and utensils, as well as plastic beverage containers from vending machines.

As a signatory of the Food Wise Charter, we work continuously to reduce food waste. In our staff canteen, colleagues order their meals in advance and make use of self-service stations for rice and soup to reduce wastage. During the pandemic, self-service stations were manned by designated helpers to reduce the risk of infection. We also separate out food waste from general waste for proper processing. Regretfully, in the latter half of 2020, our daily donations of surplus food to Food Angel, a local NGO, were suspended due to the pandemic. We will resume this practice once conditions allow.

In our offices, we are reducing paper consumption by digitalising our work processes and purchasing thinner paper, wherever possible. We encourage our customers to switch to e-bills and autopay services by offering a one-off \$50 incentive. Customers can choose to offset the value of this incentive against their electricity charges or donate it to one of our designated green groups.



Biodiversity

- ▶ *Greening Partner Charter*

Rethinking Retired EV Batteries



In June 2020, we turned our award-winning pilot project from 2017 into practical reality at the Ap Lei Chau Industrial Estate Zone Substation. We are utilising retired EV batteries to provide

back-up energy storage in the substation switch room, thereby helping protect sensitive equipment and enhance the reliability of our power supply.

During the year, we also completed a trial of a portable energy storage device made from retired EV battery banks. This portable energy supply can be utilised for operating tools and equipment during cable jointing work.

Protecting and Promoting Biodiversity

We have a proud legacy of conserving the ecological habitat of LPS by controlling air and noise emissions, excessive illumination and human disturbance on plants and animals. We cultivate native tree and shrub species to promote biodiversity and create carbon sinks for combating climate change.

In order to avoid harmful impact on the local ecosystem, we treat all wastewater by removing oil, grease, suspended solids and heavy metals, and our fish deterrent system generates low-frequency sounds to avoid the problem of fish caught up in seawater inlet culverts.

In 2020, we continued monitoring water quality conditions to ensure that marine habitats are not adversely affected by construction work on the LPS Navigation Channel Improvement project. As part of the offshore LNG terminal project, a Marine Conservation Enhancement Fund and Fisheries Enhancement Fund have been set up to support marine ecology conservation and sustainable development of local fishing industries.

Case Story

Setting the Benchmark for Energy Savings

In Hong Kong, our built environment offers many opportunities for energy saving. At HK Electric, we make it a priority to lead by example in our own facilities as well as promoting EE&C to our customers through Smart Power Services.

In 2020, we received the prestigious "Hanson Grand Retro-commissioning (RCx) (Implementation) Award" from the Environment Bureau and the Electrical and Mechanical Services Department (EMSD) for excellent energy conservation performance at Electric Tower. This success demonstrates that with a can-do attitude, the energy performance of every building can be improved.

Replacement of ageing conventional air-cooled chillers with new and more environmentally friendly water-cooled chillers

Replacement of belt-driven air handling units with variable-speed electronically commutated fans with energy-efficient motors

Installation of manually operated "overtime buttons" in individual zones to regulate air-conditioning supply after office hours based on actual need

Adoption of an AI-based analysing system with smart temperature sensors in the new data centre to optimise the operation of dedicated air-conditioning units round-the-clock in order to meet cooling loads while minimising energy wastage

~30%

Total Energy Consumption (2013-2019)

Replacement of ageing light fittings in carparks, stairwells and warehouses with smart, energy-efficient fixtures such as T5 LED tubes with photocell and occupancy sensors



This is the first time that we have adopted water-cooled chillers in HK Electric's buildings. Although these chillers are more energy-efficient than air-cooled alternatives, we explored practicable ways of making our chiller plant even more environmentally friendly. As a result, we adopted magnetic bearing (oil-free) compressors and utilised variable-speed-drive controls in all water-side equipment. In addition, we installed a computerised chiller plant control and monitoring system for better implementation of RCx in the future.

Wu Ka-kin

Project Engineer



HK Electric's Environmental Policy emphasises integrating environmental considerations into all aspects of our business operation. The incorporation of RCx elements into the new data centre project demonstrates this principle in action and that it is possible for every one of us to contribute to protecting the environment in our daily work.

Chan Chi-wai

Data Centre Specialist

Retro-commissioning at Electric Tower

Retro-commissioning (RCx) is a process to improve the energy efficiency of an existing building's equipment and systems. Located in Ap Lei Chau, Electric Tower is the "nerve centre" of HK Electric's power network. It is from here that we dispatch electricity generated at LPS and monitor real-time performance of our transmission and distribution network, which spans over 583,000 customers.

In recent years, we have set up a new data centre at Electric Tower. Our engineering team seized this opportunity to upgrade other ageing equipment in the building. New ways of saving energy and appropriate technologies such as AI were adopted, resulting in significant energy savings.



Promoting RCx through Experience Sharing

We take every opportunity to share our experiences in identifying and implementing energy saving opportunities during RCx works in order to encourage others to do the same. Recently, our experts have addressed over 600 audience members on two webinars hosted by the Green Council. We also participated in the "Green Schools 2.0 for Retro-commissioning Professional Talk" sponsored by the Hong Kong Green Building Council as well as two webinars organised by the EMSD to promote RCx and building energy efficiency.

The RCx project for Electric Tower was a new and valuable experience for us. We are keen to share our RCx journey with others and hope to see more RCx projects being implemented in Hong Kong.

Thomas Yeung

Manager (Building Maintenance & Services)

Education and Awareness

Enhancing public awareness and participation through education is essential if Hong Kong is to realise a sustainable future by and for all.

Happy Green Campaign

For many years, we have been promoting EE&C, RE and low-carbon lifestyles through our Happy Green Campaign, a major initiative under the Smart Power Education Fund.

In 2020, the campaign continued with the theme "Smart Power for Smart City," however the COVID-19 pandemic challenged us to rethink our approach by focusing on web-based experiences and social media interactions:

- ▶ An animation series "Smart City Takes Action" was launched to introduce the various aspects of a smart city and encourage actions in daily life.
- ▶ The campaign's mini-site was enhanced for school students' online learning at home.
- ▶ Posts promoting green messages and actions were published every week on the campaign's Facebook page.
- ▶ An interactive drama "Smart Power Alliance" was produced in partnership with a professional production house, iStage, with both online and onsite versions.



Smart City
Takes Action



Smart Power
Alliance



Timely Support for Schools

Our support and engagement with schools continued despite disruption to school operations due to the pandemic.

Happy Green Schools

- ▶ Over 480 primary and secondary schools in Happy Green Schools Network
- ▶ Up to \$10,000 each for 27 schools to carry out projects promoting EE&C, RE and low-carbon lifestyle
- ▶ 13 sessions of interactive drama for around 2,800 participants
- ▶ 3 sessions of STEAM workshop in partnership with Hong Kong Federation of Youth Groups' (HKFYG) for around 100 students

Happy Green Ambassadors

- ▶ Online training in partnership with the University of Hong Kong (Faculty of Engineering) and HKFYG for 40 Ambassadors
- ▶ A two-day virtual "Smart City Online" workshop with sharing by representatives from HK Electric, Cyberport and local start-up companies, as well as hands-on learning of using geographic information systems

Green Energy Dreams Come True

- ▶ Up to \$20,000 each for 15 shortlisted projects from previous years to sustain or enrich their dreams



Green Hong Kong Green

Our Green Hong Kong Green (GHKG) programme—now in its 16th year—is co-organised by HK Electric and the Conservancy Association to foster public appreciation of Hong Kong's eco-heritage resources through guided tours on designated routes.

Before the introduction of social-distancing restrictions in February 2020, five eco-tours were organised in January for about 60 participants.

As most physical eco-tours were suspended under the pandemic, we continued to promote our eco-heritage routes and spots through weekly Facebook posts with topics ranging from ecology to local history. Various videos, including one taken with a drone to capture the beautiful scenery of our Tai Tam Country Park route from above, were produced to encourage the public to appreciate eco-heritage treasures online. A set of WhatsApp stickers were designed to further promote the best spots on our 10 eco-heritage trails.

New Eco-heritage Route Reminiscing the Lights and Sounds of North Point



In 2020, we developed a new eco-heritage route in the Eastern District called "The Eastern Sparkle" to share with the public the unique entertainment history, culture and ecology of North Point.

Following the official launch of this new route in March 2021, we have achieved complete coverage of all districts on Hong Kong and Lamma Islands. Eleven eco-heritage routes showcase a host of eco-heritage treasures to Hong Kong citizens.

About 50 participants attended an online eco-leaders training to learn about the ecology and history of North Point, including the unique story of North Point Power Station. They will help conduct eco-tours on the route when physical tours can resume. The GHKG mobile app was also enhanced to cover the new route and a series of videos were produced to introduce the eco-heritage spots enroute.

Environmental Campaigns

We strive to raise awareness of environmental concerns by encouraging our employees to support a range of green campaigns organised by the Government and NGOs.

In support of the United Nations' World Environment Day in June 2020, more than 800 employees and their families made green pledges around the four basic necessities of life: apparel, diet, living and transport. Many donated used mobile phones, digital cameras and books to benefit people in need. The campaign also featured a quiz and a photo competition on biodiversity.

In 2020, we launched a Waste Management Campaign at our Head Office to raise awareness of waste reduction and recycling in collaboration with the Hong Kong Productivity Council and funded by the Environment



and Conservation Fund. The campaign included a waste charging trial that took place between May and September with the objective of preparing for the expected introduction of a new municipal solid waste charging scheme.



Running a Sustainable Business

Sharing our Planet

Serving Hong Kong

Working with Partners

Serving Hong Kong

KEEP
CARING



港燈
HK Electric

HK\$25

「關懷有緣」飲食券
"Care and Share"
Dining Coupon



Management Approach

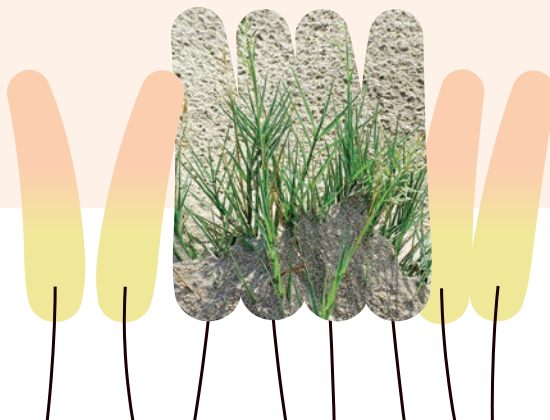
At HK Electric, we strive to enhance the quality of life in our city and are committed to delivering world-class reliability and service excellence. This commitment is reflected in our Quality Policy, Customer Services Policy, Complaints Handling Policy and Corporate Security Policy, which guide us to exceed customer expectations and achieve total customer satisfaction through continuous improvement.

Our Customer Services Steering Committee oversees our service performance against specific and measurable targets, including our pledged Service Standards. We take all complaints seriously and review them carefully through our Stakeholder Satisfaction Steering Committee. Throughout our operations, we implement quality management, asset management and information security management systems certified to ISO standards 9001, 55001 and 27001 respectively. We also have a physical security management system in place for our key facilities and premises.

First and foremost, we must fulfil the Government's energy policy objectives of providing safe, reliable and environmentally friendly electricity supply at reasonable cost. Under the current SCA, which is valid through to December 2033, we implement a range of funding and service schemes—known as Smart Power Services—to support EE&C and local RE generation in line with our Environmental Policy while taking special care of people in need.

We take great pride in giving back to Hong Kong in various ways. Our community investment strategy reflects our deeply held belief that lasting contributions are created through partnerships. We engage with community groups to build social capital through a range of programmes focused on environmental education and care for the elderly.

Inspiration from *Nature's Resilience*



Sporobolus virginicus

Often found in coastal areas, this hardy, salt-tolerant species of grass has slim, course blades and creeping rootstalks that grip into sandy soil in order to withstand strong winds.



Reliable and Affordable Power

An efficient and uninterrupted supply of power underpins Hong Kong's status as an international centre for trade and finance, as well as our ongoing transformation into a smart city. During the COVID-19 pandemic, reliable and affordable electricity has facilitated essential medical and communications services to fight the virus. In 2020, we achieved a high supply reliability rating of 99.9999% or above every month.

World-class Power System

We take a comprehensive and proactive approach to ensuring the reliability and robustness of our power system through strategic investments that maintain, upgrade and improve our equipment, technologies, and processes. In addition to various capital enhancement projects that are underway, such as our new gas-fired generating units and offshore LNG terminal, we are continuously upgrading our power supply network and adapting our supply circuits to accommodate the MTR's expanding railway system.

To strengthen our emergency preparedness for supply restoration in the event of major equipment failure at any of our distribution substations, we have recently commissioned a mobile 11-kV switchgear with capacity to provide emergency backfeed supply for affected customers.

During the year, a new round of Network Reliability & Operations Review on the performance of our assets and processes was completed for 17 workgroups, including a new workgroup dedicated to Station Buildings, Cable Tunnels and Operational Premises.

HK Electric's 24-hour System Control Centre monitors and controls power generation, transmission and distribution via our Energy Management System and Distribution Management System. Together with our back-up systems, these management systems play a central role in enabling safe, reliable and efficient electricity supply to our customers, while reducing emissions to minimise our carbon footprint.

In 2020, we partnered with a local university to develop a forecast model using neural network technology and AI for our Intelligent Volt-VAR Regulation Programme. The objective of this study is to achieve better voltage regulation and lower power loss.

Supply Performance in 2020

>99.9999%


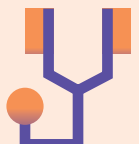
record-high supply reliability rating;
>99.999% for the 24th year in a row
since 1997

<0.5 minute

unplanned customer minutes lost;
<1 minute for 12 consecutive years
since 2009



Proactive Risk-based Asset Management for our Electricity Network

Risk monitoring approaches	Assets: Typical measures	Purposes
 Condition monitoring and advanced diagnostic techniques for network components	Switchgear: Advanced online partial discharge detection system	Early detection of incipient faults to avoid potential component failure
	11-kV distribution cables: Very-low-frequency-monitored withstand test	Early detection of water ingress in cable insulation layer to avoid potential cable faults
	Low-voltage network: Low-voltage fault indicator (currently subject to trial)	Improving efficiency of fault identification and trouble shooting
 Health indices register for network components	Primary and secondary assets (e.g. switchgear, transformers, relays and remote terminal units): Formulation of critical indices	Timely refurbishment or replacement to avoid equipment failure

Physical and Cyber-Security

We have comprehensive management systems in place to protect our facilities, technologies and information assets from physical or cybersecurity threats. Our Physical Security Management System identifies potential vulnerabilities, and contingency plans are in place to ensure supply reliability. In 2020, we continued to implement necessary measures to enhance the physical security of our key operational premises. We also plan to implement a facial recognition access control system at our data centre.

Our in-house team of cybersecurity specialists work with external service providers to implement our cybersecurity management framework, which addresses the technical, regulatory and managerial aspects of cybersecurity. This management framework prioritises the confidentiality, integrity and availability of our critical infrastructure and information assets through a “defence-in-depth” approach. Multiple layers of security technologies have been deployed and integrated with different cybersecurity processes to enable our employees to identify, protect against, detect, respond to and recover from cybersecurity incidents.

We have adopted seven strategies proposed by the Department of Homeland Security of the United States to defend industrial control systems.



To safeguard our information assets against unauthorised access and malicious attacks, we have also implemented Next Generation Firewall and Intrusion Prevention System, Advanced Persistent Threat (APT) Protection Solutions, Mail Gateway, Secure Web Proxy, and Anti-malware Systems.

Our employees play a critical role in preventing and reducing cybersecurity threats. In addition to conducting regular training on data privacy and data protection, we have a dedicated cybersecurity awareness programme. We publish a quarterly publication called “Cybersecurity Corner” to keep employees abreast of up-to-date information. We also seek their feedback to help us achieve continuous improvement in managing these risks.



Alleviating Economic Hardship

2020 has been a challenging year for our city as a result of the COVID-19 pandemic. We are committed to supporting our customers and other members of our community to ride through the current economic downturn by continuing to maintain our tariffs at an affordable level and reaching out with a helping hand to those in need.

From January 2020, HK Electric rolled out a platform of targeted relief measures for SMEs. We waived tariff increases during a six-month grace period benefitting about 70,000 non-residential customers, and provided subsidies for 47 commercial customers, including SMEs, to purchase energy-efficient equipment through our Energy-efficient Equipment Subsidy Programme. Additionally, 180 SME caterers participated in a two-month electricity payment deferral scheme.

HK Electric also launched a "Care and Share" SME Caterers Subsidy Scheme distributing 40,000 sets of dining coupons worth \$20 million and provided a food and beverage subsidy to more than 50 NGO-run community centres through our NGO Catering Subsidy Programme. These initiatives were designed to alleviate hardship among Hong Kong's most needy families while helping generate business for SME caterers.

Entering 2021, we have expanded the scope of our relief measures and energy saving programmes to cover a proportion of customers hit hardest by the pandemic. Together with the distribution of dining coupons again, this new round of relief measures will benefit more than 40,000 underprivileged families and 500 SMEs. For more details, please refer to the press release of 8 February 2021 on our website.

Tariff Freeze for 2021

In November 2020, HK Electric announced a tariff freeze for 2021. There will be an upward adjustment to our Basic Tariff and the Special Rent & Rates Rebate will be discontinued because they have already been fully returned to our customers. Nonetheless, these increases will be fully offset by a reduction in the Fuel Clause Charge. As a result, the Net Tariff for 2021 will be maintained at 126.4 cents per unit of electricity, which is the same level as 2020. This is also considerably lower than the tariff level that was forecasted in our 2019-2023 Development Plan.

Basic Tariff	102.0 → 109.0 ¢/unit
Fuel Clause Charge	24.8 → 17.4 ¢/unit
Special Rent & Rates Rebate	(-0.4) → 0 ¢/unit
Net Tariff	Maintained at 126.4 ¢/unit

Looking to the future, we anticipate that the increase in capital expenditure for a greener, smarter Hong Kong and substantial increase in consumption of natural gas will lead to upward pressure on tariff adjustment. To minimise the tariff impact, we will continue to enhance operational efficiency and productivity while making steady progress towards completion of the new LNG terminal that will help us secure a competitive supply of natural gas.

We will also continue to implement concessionary tariff schemes targeting the most vulnerable members of our society and offer the Super Saver Discount to encourage energy saving.

Serving our Customers

At HK Electric, we strive to meet and exceed our customers' expectations through continuous service improvement.

Excellent Service

In 2020, we met or surpassed all 18 of our pledged Customer Service Standards covering electricity supply, connections, accounts and meters, enquiries and emergency services, among others. We worked hard to overcome all the challenges presented by social-distancing restrictions in order to maintain our excellent record of customer service.

We have continued to expand diversified payment channels and value-added services. In July 2020, we introduced payment via AlipayHK and FPS QR code through our Account-On-Line service, and from October via cashier payment in some 200 Watsons stores. We also increased the payment deferral amount of small outstanding bills from \$150 to \$200.

During the year, we received a number of prestigious customer service awards, as well as 1,994 positive commendations from our customers, which reflects a very high level of customer satisfaction. On the other hand, we received a total of eight complaints from stakeholders of which seven are product or service-related cases from customers. All the complaints were handled in accordance with established procedures.



HK Electric is honoured to receive the "Quality Service Retailer of the Year - Retail (Services) Category" and the "Excellent Service Retailer of the Year" under the Quality Service Benchmarking Assessment organised by Hong Kong Retail Management Association in 2020.



[Go Digital with Account Matters](#)

Building a Smarter City



In April 2020, we began rolling out Advanced Metering Infrastructure (AMI) and smart meters to help transform Hong Kong into a world-class smart city. Once the roll-out is complete, new digital services and tools will enable our customers to understand more about their energy usage in order to optimise their energy use.

AMI will also help improve the efficiency of our operations by saving manpower for manual meter readings and enhancing data accuracy. Encrypted data on energy consumption will be transmitted to our data system safely and automatically via a wireless network.

In 2020, we achieved our deployment target of 40,000 smart meters for the year despite the impact of the pandemic.



Caring for our Customers

Greater convenience



Customer Emergency Services Centre

24-hour emergency telephone call and SMS services



Account-On-Line service

round-the-clock interactive access to electricity account and information regarding planned shutdowns and supply interruptions via our website and app



E-billing / E-payment / Group billing / Bill of Small Outstanding Amount services

green and convenient options for billing and payment



One-stop services for SMEs / Data centres

comprehensive services for business startups and energy management



Customer Relationship Management Programme

ambassador visits to corporate customers with one-stop service on technical and account matters



Virtual Assistant "Elsie"

available on our website to answer general enquiries 24 hours a day, 7 days a week

Supporting special needs



For ethnic minorities

forms and pamphlets in eight minority languages



For the hearing-impaired

videos supported with sign language, SMS enquiry service and teleloop system at service counter



For the visually-impaired

voice-assisted e-bill service and braille bills



For the elderly

"Web for the Elderly" and express counter with magnifying glasses



For the disabled

automatic doors for access to our Customer Centre and dedicated wheelchair-friendly counter

Connecting with our Customers

Our Customer Liaison Group (CLG) is a valuable forum for exchanging ideas with our customers and gauging public opinion on important issues. This group comprises about 40 members, including customer representatives as well as representatives from district and community organisations, and NGOs. During the pandemic, we continued to engage with our CLG members online through video presentations and virtual conferences. Other customer communication channels include service hotlines, after-service surveys, conversation series, quarterly newsletter and annual brochure, as well as suggestion, feedback and commendation forms.

Personal Data Protection

We are committed to respecting and safeguarding customer privacy in compliance with the Personal Data (Privacy) Ordinance and other relevant codes of practice, including our own Privacy Policy Statement and Personal Data Privacy Policy. In 2020, we updated our Personal Data Privacy Policy and strengthened our privacy governance framework by upgrading our Privacy Management Programme.

We organise regular seminars to raise awareness among our employees about personal data protection. In September 2020, we organised a Privacy Awareness Week by conducting virtual training sessions for our employees on our new Privacy Management Programme, updated Personal Data Privacy Policy and other relevant guidelines. We also held a follow-up e-workshop in October on privacy impact assessments for key data projects.

In addition to issuing guidelines for our employees on handling customer data, we have a Data Loss Prevention System in place to prevent unauthorised disclosure of personal data through the Internet, email, portable storage devices and file transfers.

For more information about our cybersecurity efforts, please refer to the previous section on [Physical and Cyber-Security](#) of this chapter.

Smart Power Services

HK Electric fosters EE&C and promotes RE in the community through a suite of funding and service initiatives known as Smart Power Services, which target residential, commercial and industrial customers, as well as education and welfare organisations.

In 2020, we introduced two new subsidy programmes under the Smart Power Care Fund and increased the subsidy rate under the Smart Power Building Fund to 80% for EE&C enhancement of communal areas in buildings owned or operated by NGOs.

During the year, we continued to engage with stakeholders about Smart Power Services through a range of channels, including our dedicated webpages and YouTube channel, mobile app, phone hotline and email enquiry service. To overcome the impact of social-distancing restrictions, we added a new feature to our website in October for stakeholders to experience a virtual walk inside our Smart Power Gallery. Six virtual guided tours were conducted for 299 participants via an online meeting platform introducing climate change, RE and attributes of a smart city.



2020 Highlights

Energy Efficiency

Smart Power Building Fund

subsidies for building owners to enhance energy efficiency of communal building services installations (\$25 million allocated annually)

Smart Power Energy Audit

free energy audits for non-residential customers to help identify energy saving potential at their premises

Smart Power Loan Fund

interest-subsidised loans for eligible customers to help finance energy efficiency enhancement projects

Smart Power EV Charging Solution

one-stop service for customers to implement EV charging solutions

2020 Accomplishments

48 applications approved involving 85 buildings and ~\$13 million subsidies

210 free energy audits conducted

MoUs signed with three major banks to provide loans to fund energy efficiency enhancement projects

>380 inquiries and >200 service requests from customers handled



Renewable Energy

Feed-in Tariff Scheme

purchasing electricity generated by customers' RE power systems at \$3-5 per unit of electricity

RE Certificates

on offer of sale to interested customers at \$0.5 premium per unit of electricity

2020 Accomplishments

72 grid connections made amounting to >1.2 MW capacity

~3.5 GWh green electricity generated and fully subscribed

Green Education

Smart Power Education Fund

promoting EE&C, RE and low-carbon lifestyles to the public, and in particular to Hong Kong's youth, through our Happy Green Campaign and other programmes (\$5 million allocated annually)

2020 Accomplishments

~57,000 participants in various activities (see the chapter on [Sharing our Planet](#) for more information)



Supporting the Needy

Smart Power Care Fund

subsidies for people in need to adopt low-carbon lifestyles, improve living environment and enhance electrical safety through five programmes



Energy-efficient
Community
Subsidy
Programme

2020 Accomplishments

1,622 underprivileged families benefited from:

- ▶ Energy-efficient Appliances Subsidy Programme
- ▶ SDU Electricity Charges Relief Programme
- ▶ SDU Rewiring Subsidy Programme

4 projects approved under:

- ▶ Energy-efficient Community Subsidy Programme
- ▶ Smart to Care Subsidy Programme

The Future is Electric

To help reduce carbon emissions, improve roadside air quality and support Hong Kong's development into a low-carbon smart city, HK Electric is working hard to promote EVs.



EV Infrastructure

HK Electric has designed and installed 12 EV charging stations on Hong Kong Island to provide free charging to EV users at convenient locations within 15 minutes driving distance.

In 2020, we upgraded our quick charging stations at the Star Ferry in Central and Yue Wan Estate in Chai Wan with multi-standard quick chargers to increase their versatility and to support more EVs.

EV Charging Solutions

Our engineering team helps interested customers design and install EV charging stations in private residential buildings through our one-stop Smart Power EV Charging Solution service. We carry out onsite inspections and evaluate historical data loads to advise on infrastructure design, facility upgrades, and metering arrangements and installation, as applicable. We also assist our customers to apply for Government subsidies.



Greening our Fleet

HK Electric's vehicle fleet comprises 166 EVs, representing over 50% of our vehicles. In 2020, we completed the replacement of all operational sedan cars with EVs or hybrid vehicles.

Greening Public Transport

HK Electric fully supports the ongoing transition to electric public transport. We are currently working with Citybus and First Bus to implement charging facilities for electric buses at Hong Kong Station Bus Terminus and Central Ferry Bus Terminus. In addition to providing the Environmental Protection Department with technical support on its "Pilot Schemes for Electric Public Light Buses and Electric Ferries," we are also providing advisory services for charging facilities at various public ferry piers.



Caring for the Community

Caring for the community is part of our corporate mission. We are proud to put our skills, resources and expertise towards helping those in need, and in particular focusing on elderly care and green education. Through ongoing programmes, we work closely with NGOs and green groups to bring about meaningful and sustainable contributions on these important social issues.

Caring for our Elders

"CAREnJOY for the Elderly" (CAREnJOY) is HK Electric's signature community programme that has been running for over 12 years. We partner with nine elderly service agencies on Hong Kong and Lamma Islands to promote neighbourhood support for elders in order to keep them connected with people and activities in their local communities.

Due to the pandemic, our in-person community outreach under CAREnJOY has come to a halt. But thanks to technological advances, we launched two network-based initiatives, namely "CAREnJOY Call-to-Care" and "CAREnJOY Non-stop," to keep single elders connected via phone calls and WhatsApp messages conveying useful information. During the year, our volunteers called to extend care to 141 single elders, and 47 mobile messages were composed and sent weekly to more than 6,800 single elders.

Expanding CAREnJOY — Socially-distanced Connections



"CAREnJOY Non-stop" provides weekly information in the form of text messages, graphics and GIF via instant-messaging application on mobile phone. The service was launched in May 2020 and has given useful tips on various topics including infection prevention, health management, electrical safety, prevention of dementia and low-carbon living.



"CAREnJOY Call-to-Care" service overcame social-distancing restrictions and replaced home visits by engaging our volunteers to call up single elders, helping relieve their psychological pressure and loneliness during the suspension of social activities and services.

Embracing the Golden Third Age

We believe that a person's age should never be a constraint to leading a fulfilling and meaningful life.

The U3A (University of 3rd Age) Network of Hong Kong, co-founded by HK Electric and the Hong Kong Council of Social Service (HKCSS) in 2006, aims to encourage local retirees to pursue lifelong learning and continue to contribute to the community through volunteering. In 2020, we financed 48 self-learning centres operated by 16 social service agencies.

In 2020, we moved our Smart Power Ambassador training online and successfully trained about 130 retirees to be more green-conscious. Following suspension of face-to-face teaching, we encouraged U3A students to keep up the pace of learning at home. About 200 of them took part in an incentive scheme and shared their experiences of learning about low-carbon lifestyle, environmental protection and healthy living.



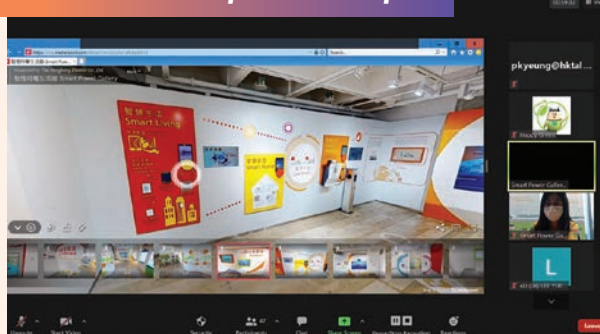
Giving to Good Causes

HK Electric supports various charitable causes through sponsorships and donations in aid of many beneficiaries, including students from low-income families, NGOs, green organisations, professional bodies and community groups.

In 2020, in addition to funding the U3A Network, our Centenary Trust provided scholarships for 70 secondary school students with financial needs. A charity sales day was held at our Electric Tower in January for the Tung Wah Group of Hospitals. In June, HK Electric joined other CK Hutchison Group companies to raise funds for The Community Chest. By pledging to match public contributions dollar for dollar, the CK Hutchison Group doubled the amount of money raised to help people ride through the pandemic.

Since 2004, we have participated in a programme managed by Caritas that refurbishes used computers and related equipment for donation to underprivileged households. In 2020, we contributed 412 computer items under this programme.

More Than Just Sponsorship



In addition to providing financial support to 70 students in financial need, we also offered them learning opportunities by organising virtual tours of our Smart Power Gallery, through which they could understand more about the story of HK Electric, climate change, energy conservation, RE and how Hong Kong citizens can contribute to building a smart city.



Salute to
Healthcare
Professionals



HK Electric Volunteers

From just a few hundred members in 2004 to more than 1,100 strong today, the HK Electric Volunteers Team remains a dedicated arm of our sustainability efforts.

While service opportunities have been largely reduced under the pandemic, the HK Electric Volunteers Team strived to address community needs in this challenging time and explored various opportunities to serve, including purchasing supplies for people at a quarantine camp, producing cheering messages for about 10,000 healthcare professionals of Hong Kong East Cluster, preparing anti-virus sanitary bags for "Young Mothers and Babies," providing online mentoring for secondary students and delivering free meals to deprived families hard hit by the pandemic.

Throughout the year, the team supported 22 services totalling 712 service hours.

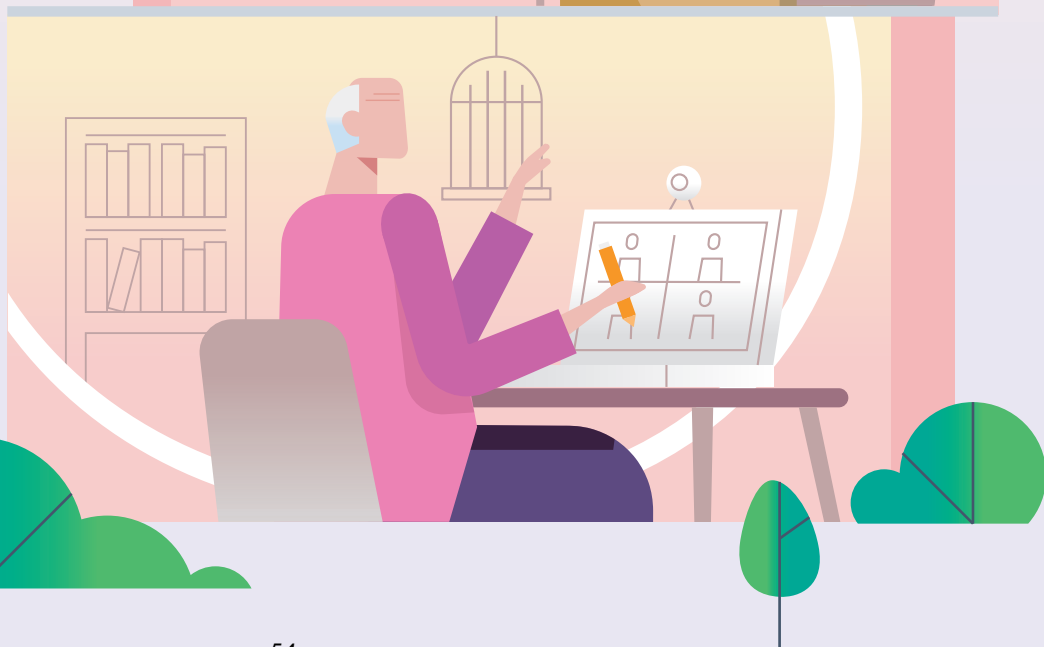


Upcycling by
HK Electric Volunteers

Being There

in the Moments that Matter

HK Electric's commitment to caring for our community took on new significance in 2020 due to the COVID-19 pandemic, which severely affected the lives of the elderly and families with children by forcing many to experience long periods of social isolation. We strived to bring comfort, hope and encouragement through our community programmes during this difficult time.



Reaching out to Families in Need



The meals delivered by HK Electric volunteers helped us make it through this difficult time. The warmth and kindness of the volunteers gave us hope for the future.

Lo Mei-yuk
meal packs recipient

The experience of enjoying a proper and nutritious meal can mean a lot to families who are suffering from severe financial hardship. HK Electric volunteers partnered with the Hong Kong Federation of Youth Groups to deliver healthy meal packs to deprived families in the Eastern District of Hong Kong Island over a consecutive four-week period.

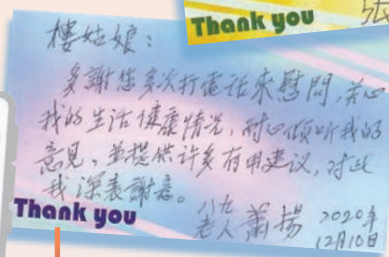
Small Gestures to Show Big Care

Throughout the pandemic, we have continued to show care and love to the elderly in new ways by fostering social connections through WhatsApp messages. We were concerned that elders living alone may feel lonely, worried or helpless due to social-distancing restrictions and lack of access to timely information about the virus. A simple greeting and warm reminder can bring comfort and help cheer them up.

HK Electric volunteers also made phone calls to single elders who were socially isolating at home in order to reduce the risk of infection.



Lam Ka-yan
Associate Manager at
Wan Chai Methodist
Centre for Seniors



Thank you messages from the elderly beneficiaries of the "CAREnJOY Call-to-Care" series

HK Electric helped the elderly stay in touch with society. Through useful tips and interesting games sent via WhatsApp, the elderly were able to stay engaged even though they could not physically come to the community centre.

Although I am an 87-year-old elder, I can still contribute to saving the planet for the next generation. At home, I remind myself to implement energy saving measures such as switching off lights after use.

Mai Rui-qun
U3A student and
Smart Power Ambassador



Lifelong Learning Never Stops

Many retirees wish to continue enriching their lives through learning and keeping in touch with the world, but this has become more difficult during the pandemic. In response, HK Electric offered socially-distanced learning opportunities through our Smart Power Ambassador Training Programme. 130 U3A students joined online training delivered by company representatives and green groups.

87-year-old Mai Rui-qun is a U3A student at Po Leung Kuk. She used to find online learning a big challenge but after joining the Smart Power Ambassador Training Programme, both her green knowledge and IT literacy have improved.



Running a Sustainable Business

Sharing our Planet

Serving Hong Kong

Working with Partners

Working with Partners

KEEP CULTIVATING







Management Approach

At HK Electric, we value our employees, contractors and other suppliers as essential business partners for achieving our Vision: to excel in the power business in Hong Kong.

Our Human Resources Steering Committee oversees the formulation and implementation of our human resources policies and is responsible for guiding our continuous efforts in nurturing a harmonious and productive workforce. Our human resources strategy—“**SHINE**”—provides guiding principles that are integral to our management approach for ensuring that we will continue to attract and retain the talent we need to excel in all core areas of our business. The acronym “**SHINE**” stands for **S**ynergy, **H**olistic development, **I**deal workplace, **N**urturing future leaders and **E**xcellence.

We believe in empowering our people to achieve their full potential through collaboration, team work and open dialogue. In addition to rewarding our employees fairly and competitively for their performance, and engaging with them regularly, we are committed to investing in their professional development as guided by our Learning and Development Policy as well as promoting a healthy work-life balance.

HK Electric strives to provide safe, accident-free workplaces. Under the supervision of our Health & Safety Board, our Health & Safety Policy applies to all areas of our business. We have safety and asset management systems in place that conform to international standards ISO 45001 and ISO 55001 respectively. These initiatives help ensure the health and safety of our customers and the public as well as our employees and contractors.

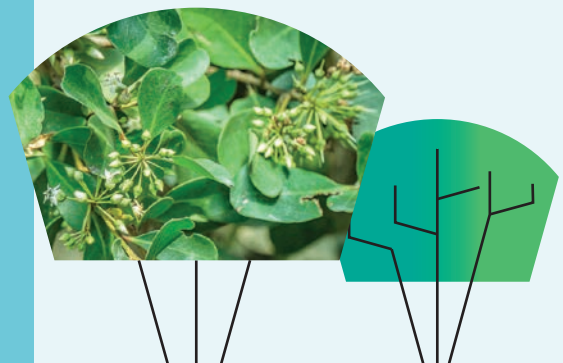
HK Electric’s core values for sustainability are non-negotiable. We expect all business partners in our supply chain to uphold these values and work with us to achieve shared goals for sustainable development. Our “Code of Practice for Suppliers” specifies high standards for business ethics, human and labour rights, health and safety, environmental protection and climate action.

In February 2021, we formalised our Human Rights Policy to reflect our commitment to upholding human rights across our organisation and encouraging our stakeholders across the value chain to increase their protection of human rights.

Inspiration from *Nature’s Resilience*

Aegiceras corniculatum

This common species of mangrove thrives in coastal mudflats by discharging excessive salt from special glands producing salt crystals that glisten on its leaf surface.



Building Strong Relations

In recent years, HK Electric has been consistently recognised as an employer of choice. In 2020, we ranked third among Hong Kong's Top 20 Most Attractive Employers in the Randstad Employer Brand Awards; moving up from fourth place in 2019 and sixth place in 2018.

We attribute this success to our approach of treating people fairly and rewarding their performance while listening and responding to their needs. We offer competitive remuneration packages and extensive career-development opportunities in order to attract and retain the right talent. Consequently, many employees enjoy long and fulfilling careers with us, and our voluntary turnover rate remains low—at a level of only 2.4% in 2020.

Providing Equal Opportunities

As an equal opportunity employer, HK Electric is committed to fair and equal treatment in all aspects of Human Resource Management—from recruitment and training to promotions, compensation, benefits and termination—irrespective of gender, disability, family status, race, age, sexual orientation or other personal attributes. Strict adherence to these principles in our recruitment processes, guides us to select new hires based on their abilities, aptitude and knowledge.

HK Electric has a zero-tolerance policy towards discrimination, harassment, vilification or victimisation of our employees under any circumstances; and formal procedures are in place to handle employee grievances. We encourage our employees to voice their concerns and resolve to handle all complaints promptly and fairly, in a transparent manner.

The performance of our employees are appraised regularly and they receive remuneration in accordance with our pay-for-performance policy, which focuses on their competencies and contributions to our business. In order to stay competitive, we conduct an annual review of our remuneration packages with reference to comparable organisations in relevant fields.

2020 Turnover Rate



Gender group	Male	Female
Turnover rate (%)	2.4	2.5



Age group	30 or below	31-40	41-50	51 or above
Turnover rate (%)	4.7	2.8	1.9	1.3

2020 Employee Profile



Gender group	Ratio (%)
Male	80.6
Female	19.4



Age group	Ratio (%)
30 or below	19.4
31-40	21.6
41-50	22.4
51 or above	36.6



Employment contract	Ratio (%)
Permanent	92.9
Contract	7.1



Listening to Employees



For more than 40 years, our Joint Consultation (JC) Committee has facilitated open communication between employees and management. In 2020, six JC panels comprising more than 70 directly-elected representatives from various employee groups met 11 times to discuss business operations and employee welfare. Owing to the COVID-19 pandemic, majority of the meetings were held virtually via video-conference.

Each year, we organise dedicated sessions to facilitate a company-wide exchange of views. In 2020, more than 80 employees participated in quarterly focus group meetings via tele-conference on various topics. Other internal communication channels include the My HKE mobile application, our Ideas Click online suggestion platform and an employee hotline.

Showing How We Care

2020 presented unique challenges for our employees to remain healthy in both body and mind. During the year, our Wellness Initiatives focused on building resilience during the COVID-19 pandemic by continuing to promote physical and intellectual wellbeing, emotional and social wellbeing, and good family relationships.

During the year, to help keep our people connected but safe while respecting social distancing, we conducted lunchtime workshops on DIY skills via video-conference. During March to June, more than 200 participants attended eight sessions to learn how to sew face mask covers and make other handcrafts.

In 2020, more than 75 colleagues from our Good Neighbours' Club continued to contribute their time and counselling skills to provide emotional support for their peers when necessary. The Club also maintained its learning and resource platform that is available to members through our Intranet portal and My HKE app. The platform provides stories of encouragement and useful tips for maintaining good health and wellness.



Wellness Initiatives in 2020

Physical and intellectual wellbeing

- ▶ Interest activity groups and online interest classes
- ▶ Health talks, fitness courses and recreational facilities
- ▶ Distribution of free fruit
- ▶ Free flu vaccinations
- ▶ Medical check-ups for eligible employees
- ▶ Tips on physical wellness
- ▶ In-house educational videos on healthy lifestyle as precautionary measures against COVID-19



Emotional and social wellbeing

- ▶ Volunteering activities
- ▶ Employee Recreational Subsidy
- ▶ 24-hour Employee Counselling Hotline Service manned by professional counsellors
- ▶ Good Neighbours' Club
- ▶ E-buddy programme to help new hires assimilate quickly and effortlessly into our corporate culture
- ▶ Tips on emotional wellness
- ▶ In-house educational videos on psychological wellness in fighting against COVID-19
- ▶ One-hour Learning Series on adapting to the new normal, building effective habits and improving emotional wellbeing



Good family relationships

- ▶ 5-day week
- ▶ Lactation rooms for breastfeeding mothers
- ▶ Medical check-up plans and flu vaccinations for employees' family members at preferential rates
- ▶ Children's Education Subsidy

Case Story

Caring for Each Other



Amidst social distancing and socio-economic disruption arising from the COVID-19 pandemic, 2020 was an especially important and challenging time to show how much we care for one another. While it is our mission at HK Electric to maintain a reliable electricity supply for our customers, it is also one of our top priorities to ensure the wellbeing of our employees.

We have implemented a suite of initiatives to help our colleagues stay healthy and foster a sense of fulfilment by combating the pandemic together. Notwithstanding three isolated COVID-19 cases among our employees and contractor personnel, there were no recorded incidents of secondary infection in our workplaces due primarily to the stringent social-distancing measures that were implemented.



Providing a Safe and Supportive Working Environment

Besides providing face masks, hand sanitisers and protective eyewear to our employees, we have implemented a range of new measures to maintain a safe working environment. These include: regular cleaning of company premises; body temperature monitoring at workplace entrances; mandatory wearing of face masks in the workplace and on company transport; and strict adherence to social distancing and personal hygiene protocols in staff canteens.

Video conferencing, online training and digital workflows have been widely adopted in order to minimise the risk of infection through inter-personal contact and transferring physical documents or objects between business units. To reduce potential exposure from commuting on public transport, we offer our employees flexible working-hours and work-from-home arrangements whenever necessary.

We have tried to think about every detail to help protect our colleagues from the virus, such as shutting off showers and hand dryers in washrooms to prevent aerosol transmission, installing alcohol hand-rub dispensers in lobbies and lifts, and distributing spray bottles of 75% Isopropyl Alcohol for colleagues to sterilise their desks and tools.

Rose Chow

Manager (Administration Services)



Shirley Wong

Manager
(Procurement & Suppliers Management)



I am very happy to have taken part in creating a series of 11 educational videos for our

colleagues to learn how to protect themselves. The videos not only provided health tips, but also featured with simple exercise and advice from a professional counsellor. Hopefully everyone will stay healthy, both physically and mentally, during the pandemic.

Melody Wong

Assistant Officer (Learning & Development)

Ensuring Effective Communications and Encouraging Mutual Support

Throughout the pandemic, we have continued to listen and respond to our employees' concerns. During the year, we set up Emergency Hotlines that our colleagues can call with any queries about the uncertain and constantly evolving situation. We also established an "Info Hub on COVID-19" on our Intranet portal and My HKE app that provides useful information in the form of in-house educational videos, posters, news and announcements.

We are committed to getting through these challenging times together by showing mutual support for each other. We keep in close contact with colleagues who are undergoing quarantine to enquire about their health and offer assistance. In addition, 49 colleagues volunteered to hand make over 600 face mask covers that were given to frontline colleagues to show their support.

Our Department is responsible for maintaining an adequate stock of face masks for use by our colleagues in their daily work. At the beginning of the pandemic, this was very challenging as Hong Kong experienced a temporary shortage. We leveraged our network of international suppliers and business partners and managed to get a sufficient number of face masks to help keep our colleagues safe.

Nurturing Talent

We invest continuously in our employees' long-term career development in accordance with our Learning and Development Policy. One of our key objectives is to ensure that our workforce will continue to provide the skills and expertise we need to excel in all core areas of our business without reliance on external providers. To overcome labour-supply challenges facing our industry, we must constantly attract experienced candidates and also inspire young people to embark on new careers with us in the power sector.

In 2020, HK Electric was named *Manpower Developer (2020-22)* in the Employees Retraining Board Manpower Developer Award Scheme for outstanding achievements in manpower training and development.

Trainee Recruitment

We raise awareness amongst young people about career opportunities at HK Electric by promoting our Trainee Programmes through various fairs and expos, participating in talks organised by universities and the Vocational Training Council, and arranging site-visits for students from secondary schools and universities. We also have an Industrial Placement Programme for third-year students of bachelor degree programmes in IT-related disciplines. In 2020, we recruited five Graduate Trainees and two Trainee Technicians.

During the year, HK Electric also entered a team in the "E&M Go!" event organised by the Hong Kong Electrical and Mechanical Industry Promotion Working Group to encourage electrical and mechanical apprentices to develop their careers in this field.



HK Electric supports the "Belt and Road Advanced Professional Development Programme in Power and Energy."

Opportunities for Growth

It is an ongoing challenge to align our talent development programmes with business needs, while meeting the continuously evolving expectations of our employees for personal and professional development opportunities.

We offer a range of learning opportunities and resources for our employees to strengthen their competencies and improve productivity. Our learning and development programmes are developed based on a Four-level Leadership Competency Framework. The HK Electric Institute serves as a learning platform to enhance the technical and professional competencies of employees and facilitate knowledge build-up and transfer.

During the year, in response to the COVID-19 pandemic, we stepped up our efforts to deploy online learning platforms with multimedia resources for interactive

and self-initiated learning. All employees can undergo self-learning through accessing the learning resources available on our employee communication platforms such as our Intranet portal and My HKE app. To further develop our leadership pipeline, six leadership webinars and two e-learning series via a new e-learning portal were arranged for our Leadership Development Programme participants. Seven of our competency-based training, new-hire orientation programmes and compliance training were adapted to a webinar format to facilitate social distancing. In the later part of the year, we launched a new One-hour Learning Series with three modules to promote continuous learning among our employees.

We have also established an in-house multi-media studio so that we can produce even higher quality learning materials in future.

Talent Development at HK Electric



Development programme

Trainee programmes

To support trainees to build a professional career

Activities include familiarisation visits, environmental seminars, sharing sessions, a mentorship programme and graduation camps. There are also workshops on career development, presentation skills, business etiquette, team building and inter-generational communication.

Young talent development programme

To accelerate advancement of talented, young individuals into successful first-line leaders

Tailor-made learning is based on competency assessments and personal development planning. Activities include experiential learning, case discussion, experience sharing, benchmarking visits and action-learning projects. Department heads are invited to serve as mentors.

Leadership development programme

To inspire and prepare mid-level leaders to succeed in critical leadership roles

This is a two-year intensive development programme building on a mapping exercise to identify development foci and actions, and one-on-one mentorship by senior executives. Activities include structured learning through leadership bootcamp, book reviews, topical workshops, sharing with management representatives from other organisations and action-learning projects.



Knowledge sharing

HK Electric Institute

To enable the smooth transfer of knowledge and expertise to younger employees

Courses on power engineering are delivered by highly experienced current and retired employees. The training scope has been further expanded to cover knowledge and skills in customer service, commercial matters, cybersecurity, code of conduct, legal compliance and other general knowledge for all employees, as well as self-learning modules on company operations.

Seminars and workshops

To strengthen learning culture at all levels











We offer knowledge-sharing seminars and workshops on specific topics.

Knowledge inventory

To codify critical knowledge items and enable systematic planning for knowledge succession

Individual business units update their knowledge inventories annually to define critical knowledge items, identify respective knowledge owners and successors, assess their proficiency level and map out individualised learning plans.

2020 Employee Training

	Gender group		Employee category		Overall
Percentage of employees trained (%)		Male	95.7	 Senior staff	98.6
		Female	93.6	 General staff	96.5
		Workman	79.9		
Average training hours per employee		Male	19.2	 Senior staff	15.9
		Female	12.2	 General staff	19.1
		Workman	7.8		
					95.3
					17.9

Health & Safety

Health and safety is always the top priority at HK Electric. We take a proactive approach to mitigate all health and safety risks, which primarily arise from:

- Workplace incidents involving employees and contractors;
- Power supply interruptions affecting critical community facilities and customers with special needs;
- Incidents involving power facilities affecting neighbouring communities; and
- Unsafe use of electricity on customer premises.

We cultivate a positive health and safety culture throughout our organisation. This allows us to minimise health and safety risks, and to ensure that we remain vigilant and well-prepared to respond to unexpected risks, such as those posed by the COVID-19 pandemic in 2020.



Safety, Health and Environment Day 2020

Safety is our First Priority

HK Electric operates three safety management systems that conform to the latest international standard: ISO 45001: 2018, covering our operations at LPS and in our electricity network, as well as development of new power infrastructure. LPS also has a Natural Gas Safety Management System governing the design, construction, commissioning, operation, and maintenance of our gas facilities and gas-fired generating units.

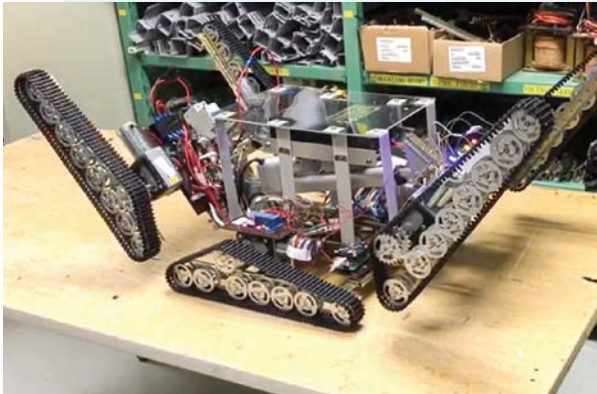
We promote health and safety awareness in all workplaces by continually educating our employees about health and safety culture, encouraging knowledge-sharing and offering a wide range of incentives for our employees and contractors to maintain incident-free operations.

In 2020, we missed the overall targets set for achieving continual improvement in the annual Lost Time Injury

Frequency Rate and Lost Time Injury Severity Rate, primarily due to two office accidents developing into long sick-leave cases. To identify the root cause of the shortfall and seek improvement in safety performance, all safety incidents were investigated thoroughly, and preventive measures were implemented as a result. Moreover, we have revamped our “Corporate Health and Safety Manual” to align more closely with recommendations from the Labour Department in its “Code of Practice on Safety Management” and at the same time incorporated enhanced precautionary measures and more stringent requirements in the Manual.

We will also keep reviewing our safety performance and take all necessary follow-up actions with the aim of pursuing continual improvement as required under our safety management systems.

Innovation in Safety



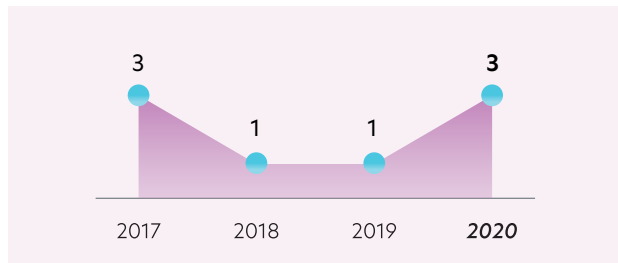
In 2020, we continued our “Continuous Safety Improvement and Innovation Scheme” that was launched in 2019. The purpose of the scheme is to encourage innovative ideas for reducing injuries and accidents in the workplace.

Twenty-one teams from various HK Electric departments participated in the scheme. After an initial round of screening by a panel of safety professionals, eight teams progressed to the second round where they presented their projects to our judging panel comprising members of the Health & Safety Board. Finally, six teams received awards for their innovative ideas. All the winning ideas have subsequently been implemented, resulting in tangible benefits for the health and safety of our operations.

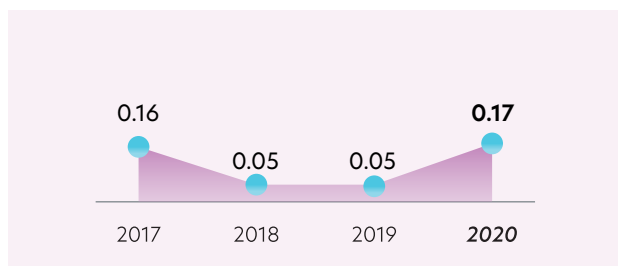
Building on the success of this competition, we intend to extend the scope of this award scheme to cover all our business operations to promote innovation throughout our organisation in 2021 and beyond.

Safety Performance

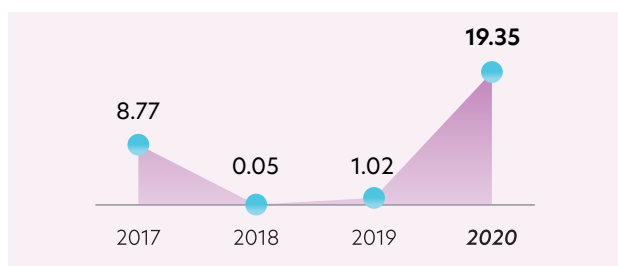
Number of Lost Time Injuries



Lost Time Injury Frequency Rate*



Lost Time Injury Severity Rate*



* Per 200,000 employee-hours

Risk Prevention Indicators 2020



Number of Work Safe Behaviour observations:

164



Number of safety inspections:

2,365



Average safety training hours per employee:

~6



Number of near-miss incidents:

247



Number of risk assessments:

619

Health & Safety Management Practices

Our systematic approach to managing health and safety, together with the collective effort of our colleagues and contractors, brought HK Electric various prestigious external awards in 2020 from the Occupational Safety & Health Council, Labour Department and other organisations. Those awards involving our contractors are presented in the ensuing section on [Managing our Supply Chain](#).

Awards

► **International Safe Workplace Certificates**

► **The 12th Hong Kong Outstanding OSH Employee Award:**

- Bronze Award (Organisation/enterprise – Management group)

► **The 19th Hong Kong Occupational Safety & Health Award:**

- OSH Annual Report Award: Gold Award
- Safety Management System Award (Other Industries)
 - Best Workplace Infection Control Measures Award: Gold Award & Merit Award
 - Safety Management System Award: Silver Award & Merit Award
 - 5S Good Housekeeping Best Practices Award: Silver Award
- OSH Promotion Award: Silver Award
- OSH Enhancement Programme Award: Bronze Award
- Safety Performance Award: Excellence Award & Outstanding Award



Rules, procedures and practices

- Comprehensive safety rules, procedures and instructions to ensure all operations are conducted in a safe and responsible manner
- Company-wide system for appointing and registering competent and authorised persons to ensure that only personnel with the necessary skills and experience can perform work on or near our facilities
- Regular risk assessments and preventive or mitigation measures to eliminate or minimise risks
- Ad hoc and regular safety audits and inspections to identify improvement opportunities
- Systematic reporting and follow-up on every workplace incident to prevent recurrence
- Work Safe Behaviour programme to eliminate risky behaviour in a range of operational areas
- 5S Good Housekeeping programme to enhance workplace efficiency, occupational health and safety, space utilisation and cleanliness
- Workplace hygiene inspections and participation in Hong Kong's voluntary Indoor Air Quality Certification Scheme to ensure a healthy working environment
- Oil-free distribution substations and zone substations to reduce potential fire hazards
- Contingency plans and procedures



Training and awareness

- ▶ Comprehensive safety training for employees with the introduction of virtual reality technology to bring training sessions to life
- ▶ Health and safety alerts for employees
- ▶ Company-wide Safety Climate Index Survey every three years
- ▶ Various promotional campaigns for employees and contractors including Health and Safety Week; Safety, Health and Environment Day; Life First Campaign; Environmental, Health and Safety Quiz; and health and safety talks
- ▶ Relevant safety information on our website for third-party contractors carrying out works near our power supply lines
- ▶ Promoting safe use of electricity to customers through group tours of our Power Quality Centre



Encouragement

- ▶ Various incentive and award schemes to recognise employees for zero-accidents
- ▶ Incentive schemes for safe driving
- ▶ Incentive scheme for reporting near-miss incidents
- ▶ Membership of the "Charter on Preferential Appointment of OSH Star Enterprise," pledging to give preference to contractors that have effective safety management systems in place for repair, maintenance, alteration and addition works



Awards

▶ Safety Quiz 2020:

- Champion, 1st Runner-up & 2nd Runner-up in Cup Final (Enterprise category)
- Champion & 1st Runner-up in Plate Final (Enterprise category)

▶ Construction OSH Video Competition 2019-2020:

- 2nd Runner-up & Merit Award (Open section)

Contingency Preparedness

Interruptions to electricity supply may significantly affect community facilities such as hospitals, road traffic control systems, communication infrastructure and building lift systems. We make every effort to deliver a reliable source of power and provide 24-hour emergency support to our customers via telephone and SMS.

We take extra care of the special power supply needs of customers operating life-support equipment by encouraging them to register with us so that we can provide advance notification of planned power supply interruptions. We also have contingency power supply plans in place for hospitals.

Please refer to the chapter on [Serving Hong Kong](#) for more information about supply reliability and customer service.

We are well-prepared for potential emergency situations such as fire, oil and chemical spills, typhoons, flooding, emergency evacuations, confined space rescues, heat-stroke and other serious accidents. We identify potential health and safety risks of our employees, contractors, customers and the public, and mitigate these risks by developing and implementing appropriate procedures. We also conduct regular drills with our employees, contractors and customers to increase our response rate and to find out areas for improvement.

We have established a 3-level contingency plan to minimise health risks of our employees and the community, as well as to maintain our business continuity and electricity supply services during an outbreak of influenza or similar public health crises.

In response to the emerging COVID-19 pandemic situation in early 2020, we implemented our contingency plan at Emergency Response Level to reduce the risk of infection of employees and contractors while maintaining our operations and services. Throughout the year, we reviewed and refined our plans so that we could respond quickly to the evolving pandemic situation. We also revised our Health & Safety Policy to include strategic measures that will ensure the health of our employees during public health emergencies.



Fire drill at Lamma Power Station

Managing our Supply Chain

HK Electric works with a variety of suppliers, including contractors and consultants, as well as vendors of materials, technical equipment and feedstock, to help us construct, operate and maintain our power facilities and support our daily operations. We work closely with these partners to ensure the success of our business and to promote sustainable development.

Our “Code of Practice for Suppliers” (the Code) sets out our standards on business ethics, including compliance with applicable laws and regulations, respect for intellectual property rights and data privacy, competitive business practices and prevention of bribery and conflict of interest. The Code also covers our expectations on human and labour rights—such as eliminating child and forced labour, respect for freedom of association and implementing anti-discrimination policies—as well as health and safety, environmental protection and climate action.

In 2020, we updated the Code to more clearly articulate our expectations on climate action. In addition to conserving natural resources and the environment, we want to influence our suppliers to take precautions against climate change, such as by improving energy efficiency and implementing other carbon reduction initiatives.

We strongly encourage all suppliers to report publicly on their sustainability performance and to influence their business partners to comply with the principles outlined in the Code as far as practicable.

2020 Suppliers by Geographical Region



Hong Kong	945	Europe (excluding United Kingdom)	10
Asia (excluding Hong Kong, Mainland China)	40	Australia	3
Mainland China	15	Canada	1
United Kingdom	13	Other regions	2
United States	12	Total	1,041

Responsible Procurement

We evaluate every tender or quotation that we receive from our suppliers according to established commercial procedures. Major suppliers undergo assessment and screening in order to be accepted onto our Recognised Tenderers Register (RTR). We periodically review the RTR and request major suppliers to submit updates on their sustainability performance. In 2020, we evaluated the performance of 24 major suppliers in this way.

Special procedures are in place to handle our fuel, limestone and urea suppliers on a case-by-case basis, which includes consideration of their sustainability performance. These suppliers accounted for approximately 1% of the total number of suppliers in our supply chain in 2020.

In 2020, we established a structured framework to review and evaluate major suppliers' performance on environment and social responsibility aspects. During the year, we introduced a new Sustainable Procurement Survey on a trial basis that was completed by five suppliers.

HK Electric is one of the founding members of the Hong Kong Sustainable Procurement Charter organised by the Green Council. In accordance with our Green Purchasing Policy and Green Purchasing Guidelines, we strive to work with suppliers who conserve resources and protect the environment. For selected commodities, procurement decisions take into account impact on the environment besides other selection criteria such as quality, price and punctuality.

Influencing our Suppliers

We engage with our suppliers to achieve shared sustainable development goals. At LPS, for example, we have recently been working with our contractors to support them to replace retired vehicles from their fleet with EVs. This collaboration aligns closely with one of our sustainable development initiatives of promoting the uptake of EVs in Hong Kong.

Our Contractor Handbook includes detailed guidelines on environmental protection, health and safety, quality assurance, housekeeping and security. We closely monitor the performance of these contractors by meeting with them regularly to monitor progress. We also have a merit and demerit point system for our trench contractors to incentivise workplace safety and good work quality.

To help reduce the risk of disease transmission, this year we held a series of "Fight COVID-19 Together" events at our construction site at Lamma Power Station Extension. All contractors and their employees were encouraged to comply with hygienic and other precautionary measures to combat COVID-19. We awarded nine employees of our contractors with "Healthy Stars" to acknowledge their excellent performance.

As part of our "Fight COVID-19 Together" initiative, we distribute hand sanitizers, face masks, fruit and health-drink powder to our contractors' frontline operatives.



Working Together to Promote Safety

We work closely with our contractors to create a safe workplace for all workers, including our employees and contractor personnel. For more information about our efforts in this area, please refer to the previous section on [Health & Safety](#).

During the year, our joint efforts were recognised in various prestigious awards schemes organised by the Development Bureau, Occupational Safety & Health Council, Labour Department, Construction Industry Council, The Hongkong and Shanghai Banking Corporation Limited and other organisations.

Awards



► Innovative Safety Initiative Award 2020:

- Silver Award (Safety Management System – Training & Promotion category), Bronze Award (Safety Operational Device category) and Merit Award (Health & Welfare category) jointly with our contractor, Paul Y. Construction Company Limited
- Bronze Award (Safety Management System – Training & Promotion category) jointly with our contractor, Sunley Engineering & Construction Co., Ltd.

► The 26th Considerate Contractors Site Award (CCSA) Scheme (Non-Public Works – New Works – Group A):

- 2 Certificates of Supervisory Company for HK Electric
- CCSA: Silver Award and Outstanding Environmental Management Performance Awards: Bronze Award for our contractor, Paul Y. Construction Company Limited
- CCSA: Merit Award for our contractor, Sunley Engineering & Construction Co., Ltd.

► Construction Safety Promotional Campaign 2020:

- Gold Award (Best Safety Enhancement Program – Operating Excavators category) for our contractor, Sunley Engineering & Construction Co., Ltd.
- Silver Award (Best Refurbishment & Maintenance Contractor – OSH category) for our contractor, Wai Luen Development Ltd.
- Merit Awards (Outstanding Metal Scaffolder – OSH category) for 2 operatives of our contractors, Taihei Dengyo Kaisha Hong Kong Branch and Wai Luen Development Ltd., respectively

► The 12th Hong Kong Outstanding OSH Employee Award:

- Bronze Award (Organisation/enterprise – Foreman group) for an operative of our contractor, Taihei Dengyo Kaisha Hong Kong Branch
- Merit Award (Organisation/enterprise – Front-line worker group) for an operative of our contractor, Sunley Engineering & Construction Co., Ltd.

► HSBC Living Business Awards 2019:

- Sustainable Supply Chain Leaders for HK Electric
- 4 Certificates of Merit for Environment, Social & Governance for our contractors, Sanko Setsubi Co., Ltd., Sunley Engineering & Construction Co., Ltd., Taihei Dengyo Kaisha Hong Kong Branch and Wai Luen Development Ltd., respectively



Key Statistics and Targets

Status of Targets in 2020

Environment	Status
Collect at least 100,000 m ³ of plant effluent and rain water for reuse at LPS in 2020	Achieved
Plant diverse species of native trees or shrubs at LPS in 2020 to support biodiversity	Achieved
Reduce food waste at the canteen of LPS in 2020 as compared to 2019	Achieved
Reduce vehicle fleet's fuel usage in 2020 as compared to 2019	Achieved
Increase EV mileage in 2020 as compared to 2019	Achieved
Obtain at least one Wastewater Certificate and one Energywise Certificate under the Hong Kong Green Organisation Certification Scheme in 2020	Achieved
Commission three new gas-fired generating units, L10, L11 and L12, at LPS in 2020, 2022 and 2023, respectively	In progress ^[1]
Reduce CO ₂ e per unit of electricity sold to not higher than 0.6 kg/kWh in 2023 from 0.93 kg/kWh in 2005 (just before natural gas was introduced to LPS)	In progress
Reduce total electricity consumption, water consumption, paper consumption and waste generation of our key office premises including Hongkong Electric Centre, Electric Tower, Electric Centre and seven main buildings at LPS by 5%, 1%, 10% and 10% respectively in 2024 as compared to the baseline figures in 2019	In progress
Reduce production of ash and gypsum at LPS by 30% in 2024 as compared to the baseline figures in 2019	Achieved ^[2]
Health & Safety	Status
Achieve a reduction in the Lost Time Injury Frequency Rate (LTIFR) in 2020 as compared to the average over the previous three years	Missed ^[3]
Achieve a reduction in the Lost Time Injury Severity Rate (LTISR) in 2020 as compared to the average over the previous three years	Missed ^[3]
Obtain at least three Excellent Class Indoor Air Quality (IAQ) Certificates under the Government's IAQ Certification Scheme in 2020	Achieved
Organise a series of health talks, physical exercises and interest classes to enable our employees to maintain a healthy and balanced lifestyle in 2020	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 2020	Achieved
Complete 200 audits for Smart Power Energy Audit in 2020, particularly for NGOs, schools and SMEs	Achieved
Confirm energy efficiency enhancement project subsidies for 100 buildings in 2020, including residential buildings, commercial buildings, NGO premises and schools	Achieved
Launch a promotion programme on electronic billing/autopay in 2020 to encourage more customers to go green	Achieved
Further expand the Plant Ownership Programme at LPS by adding at least one new project in 2020 to enhance plant reliability and availability and to facilitate development of young engineers	Achieved
Launch a new GHKG eco-heritage route in the Eastern District in 2020	Achieved
Engage 20,000 fans via our Facebook pages in 2020	Achieved
Enhance the necessary electricity infrastructure for the MTR Shatin to Central Link (North South line [Hong Kong Section]) by 2020 to support economic and social development of local communities	Achieved
Develop and implement a fraud management framework and facilitate divisions/departments to perform fraud-risk assessments in 2020 to identify assets or areas that are prone to fraud risks and enhance employee awareness of fraud risks	In progress ^[4]

Notes:

[1] New gas-fired generating unit L10 was successfully commissioned in February 2020, while the construction works for L11 and L12 are in full swing. Please refer to the chapter on [Sharing our Planet](#) for more information.

[2] This target for 2024 has already been achieved in 2020. A more aggressive target has been set.

[3] Please refer to the chapter on [Working with Partners](#).

[4] Relevant policies and reporting procedures on anti-fraud and anti-bribery have been developed. Fraud risk assessment will be conducted in 2021.



Summary of Statistics

Environment	2020	2019	2018
Fuel Consumed (TJ) ^[1]			
Gas	40,981	27,568	30,011
Coal & oil ^[2]	59,472	82,996	80,405
Licence Compliance			
Percentage of Compliance (%)	100	100	100
Air Emissions			
SO ₂ (kT) ^[1]	1.08	1.94	2.87
NO _x (kT) ^[1]	5.41	7.59	7.79
RSP (kT) ^[1]	0.13	0.18	0.20
CO ₂ (million T) ^[1]	7.16	8.48	8.37
CO ₂ e (million T) ^[3]	7.19	8.51	8.41
CO ₂ e per unit of electricity sold (kg/kWh) ^[3]	0.71	0.81	0.80
Material Non-Hazardous Wastes (kT) ^[1, 4]			
Ash produced	153	230	235
Ash collected for industrial uses	154	230	237
Gypsum produced/collected for industrial uses	39	70	69
Material Hazardous Wastes ^[5]			
Waste oil collected for recycle (litre)	0	2,000	3,000
Waste oil collected for disposal (litre)	82,700	132,087	88,687
Other material hazardous wastes recorded in volume for recycle (litre)	0	0	0
Other material hazardous wastes recorded in volume for disposal (litre)	19,800	0	3,400
Other material hazardous wastes recorded in weight for recycle (kg)	0	0	850
Other material hazardous wastes recorded in weight for disposal (kg)	53,248	23,694	17,459
Water Consumption/Discharge ^[1]			
Sea water withdrawal & discharge (million m ³)	1,738	1,930	2,031
Town water consumption (million m ³) ^[6]	1.87	2.35	2.19
Wastewater discharge (million m ³)	0.25	0.26	0.15
Noise Abatement Notice			
Number of notices received	0	0	0
Certificate Accreditation			
Number of ISO 14001 certificates	3	3	3
Number of ISO 50001 certificates	1	1	1

Notes:

- [1] The figures are 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] For construction waste generated from our major construction projects, please refer to the chapter on [Sharing our Planet](#).
- [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.

Operations	2020	2019	2018
Customer Service			
Number of customers (thousands)	583	581	579
Average rating of customer satisfaction level (5-point scale)	4.7	4.6	4.6
Number of pledged service standards	18	18	18
Percentage achieved (%)	100	100	100
Installed Capacity (MW) ^[1, 7]			
Gas	1,060	680	680
Coal & oil ^[2]	2,555	2,555	2,555
Renewable energy	1.8	1.8	1.8
Performance			
Electricity sold (millions of kWh)	10,134	10,519	10,537
Plant availability (%)	89.5	90.9	90.7
Thermal efficiency (%)	37.6	35.5	35.6
Transmission and distribution losses (%)	3.4	3.4	3.4
Electricity Supply Reliability			
Supply reliability rating (%)	>99.9999	>99.999	>99.999
Unplanned customer minutes lost (minutes)	0.3	0.6	0.6
Certificate Accreditation			
Number of ISO 9001 certificates	8	8	8
Number of ISO 27001 certificates	1	1	1
Number of ISO 55001 certificates	2	2	2

Health & Safety	2020	2019	2018
Number of fatalities	0	0	0
Number of lost time injuries	3	1	1
Lost Time Injury Frequency Rate (LTIFR) (per 200,000 employee-hours)	0.17	0.05	0.05
Number of days lost/charged (no. of employee-days) ^[8]	348	19	1
Lost Time Injury Severity Rate (LTISR) (per 200,000 employee-hours) ^[8]	19.35	1.02	0.05
Longest period without a lost time injury (no. of days)	165	213	315
Number of reported traffic accidents (no. of cases)	7	6	7
Traffic Accident Frequency Rate (TAFR) (no. of cases per million km travelled)	3.8	3.4	3.8
Number of ISO 45001 / OHSAS 18001 certificates	3/0	3/0	1/2

- [6] Town water is provided by the Water Supplies Department of the HKSAR Government.
- [7] To achieve Hong Kong's fuel mix target of around 50% gas generation in 2020, HK Electric not only had to build a new gas-fired unit L10, but also defer the retirement of an old gas-fired unit GT57. Instead of the original schedule of 2020, GT57 will now retire in 2022 when another new gas-fired unit L11 comes into operation. This is an interim measure to achieve government objective. The installed capacity in 2020 without GT57 would otherwise be 3,272 MW.
- [8] For lost time injuries in which disability continues beyond the closing date (31st December) of a specific year, days lost of the year were estimated on the basis of medical opinion with regard to probable ultimate disability.
- [9] For economic/financial data, please refer to our [Annual Report](#).

Looking Ahead

As a power utility, we play a crucial role in supporting Hong Kong's economic and social development. As a responsible business, we have a duty of care for the environment, the community, our employees and other stakeholders. To realise these commitments, we regularly review our performance and set specific goals for the future.

Outlined below are the targets we set in the areas of Environment, Health & Safety, and Partners & Community for 2021 and beyond. Specific targets corresponding to the United Nations' Sustainable Development Goals that are material to our business can be found in the chapter on [Our Business and Approach to Sustainability](#).

Environment

- ▶ Collect at least 100,000 m³ of plant effluent and rain water for reuse at LPS in 2021
- ▶ Plant diverse species of native trees or shrubs at LPS in 2021 to support biodiversity
- ▶ Reduce food waste at the canteen of LPS in 2021 as compared to 2020
- ▶ Reduce vehicle fleet's fuel usage in 2021 as compared to 2020
- ▶ Increase EV mileage in 2021 as compared to 2020
- ▶ Obtain at least one WastewiSe Certificate and one EnergywiSe Certificate under the Hong Kong Green Organisation Certification Scheme in 2021
- ▶ Commission two new gas-fired generating units, L11 and L12, at LPS by 2022 and 2023, respectively
- ▶ Reduce CO₂e per unit of electricity sold to not higher than 0.6 kg/kWh in 2023 from 0.93 kg/kWh in 2005 (just before natural gas was introduced to LPS)
- ▶ Reduce total electricity consumption, water consumption, paper consumption and waste generation of our key office premises including Hongkong Electric Centre, Electric Tower, Electric Centre and seven main buildings at LPS by 5%, 1%, 10% and 10% respectively in 2024 as compared to the baseline figures in 2019
- ▶ Reduce production of ash and gypsum at LPS by 37% in 2024 as compared to the baseline figures in 2019

Health & Safety

- ▶ Achieve a reduction in the Lost Time Injury Frequency Rate (LTIFR) in 2021 as compared to the average over the previous three years
- ▶ Achieve a reduction in the Lost Time Injury Severity Rate (LTISR) in 2021 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 2021
- ▶ Organise a series of health talks and interest classes through online platform to enable our employees to maintain a healthy and balanced lifestyle in 2021

Partners & Community

- ▶ Fulfil all our customer service pledges, embracing supply reliability, speediness of provision of supply and other customer services, including emergency services, in 2021
- ▶ Complete at least 200 audits for Smart Power Energy Audit in 2021, particularly for NGOs, schools and SMEs
- ▶ Confirm energy efficiency enhancement project subsidies for at least 100 buildings in 2021, including residential buildings, commercial buildings, NGO premises and schools
- ▶ Launch a promotion programme on electronic billing/electronic payment in 2021 to encourage more customers to go green
- ▶ Further expand the Plant Ownership Programme at LPS by adding at least one new project in 2021 to enhance plant reliability and availability, and to facilitate development of young engineers
- ▶ Support 8,500 senior citizens through various community programmes in 2021
- ▶ Engage 26,000 fans via our corporate and campaign Facebook pages in 2021
- ▶ Develop and implement a fraud management framework and facilitate divisions/departments to perform fraud-risk assessments in 2021 to identify assets or areas that are prone to fraud risks and enhance employee awareness of fraud risks

Verification Statement



VERIFICATION STATEMENT

Scope of Verification

Hong Kong Quality Assurance Agency ("HKQAA") has been commissioned by HK Electric Investments and HK Electric Investments Limited (collectively known as "HKEI") to undertake an independent verification of its Sustainability Report 2020 ("the Report"). The scope of HKQAA's verification covers the data and information of HKEI's sustainability performance for the period from 1st January 2020 to 31st December 2020. The Report states HKEI's commitment, strategies and progress towards sustainability.

Level of Assurance and Methodology

The process applied in this verification was referring to the International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements Other Than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. Our evidence gathering process was designed to obtain a reasonable level of assurance for devising the verification conclusion. The extent of this verification process undertaken was based on the Core option of the Global Reporting Initiative's Sustainability Reporting Standards ("GRI Standards"), the Electric Utilities Sector Disclosures, and the latest Environmental, Social and Governance Reporting Guide ("ESG Guide") of Hong Kong Exchanges and Clearing Limited.

Our verification included the discussion on the stakeholder engagement and materiality assessment processes, and review of the system and process for collecting, collating and reporting sustainability performance data. Also, the verification procedure covered the review of documentation, interviewing responsible personnel with accountability for preparing the Report and verifying the selected samples of data and information. Raw activity data and supporting evidence of the selected samples were also thoroughly examined during the verification process.

Independence

HKEI is responsible for the collection and presentation of the information presented in the Report. 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 has been prepared in accordance with the Core option of the GRI Standards, the Electric Utilities Sector Disclosures and the latest ESG Guide. Besides, the Report also addresses a significant number of material disclosures required under the Comprehensive option of the GRI Standards;
- The Report illustrates HKEI's sustainability performance, covering all material and relevant aspects in a balanced, comparable, clear and timely manner; and
- The data and information disclosed in the Report are reliable and complete.

In conclusion, the Report reflects truthfully HKEI's sustainability performance that is commensurate with the sustainability context and materiality of the Group.

Signed on behalf of Hong Kong Quality Assurance Agency

Connie Sham
Head of Audit
March 2021



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 [feedback form](#) on our website or by contacting us at:

Environmental Affairs Department
Corporate Development Division
The Hongkong Electric Co., Ltd.

44 Kennedy Road, Hong Kong

Fax: (852) 2810 0506

Email: sr@hkei.hk

www.hkei.hk

