



港燈電力投資

HK Electric Investments



Leaping into a Sustainable Future

Sustainability Report **2023**





Leaping into a Sustainable Future

HKEI has been supporting the sustainable development of Hong Kong by providing a safe, reliable, clean and affordable electricity supply. In addition to the cover image, various design elements throughout this report illustrate how we are working with our stakeholders to achieve shared goals. Flowing lines in red and green represent our transition from traditional to cleaner energy sources. Through our Smart Power Services, implementation of smart meters and decades of diversified green education programmes, we are actively encouraging all members of the community to participate in Hong Kong's decarbonisation journey. The report's digitally abstract geometric style symbolises Hong Kong's transformation into a green and smart city with the collaboration of all stakeholders.



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Report Overview

Scope and Boundary

This is the Sustainability Report 2023 of HK Electric Investments and HK Electric Investments Limited (collectively, HKEI). We report our sustainability performance on an annual basis and this report covers the period from 1 January to 31 December 2023 unless otherwise specified. Our main operating company, The Hongkong Electric Company, Limited (HK Electric), is a major power utility in Hong Kong. This report covers our electricity business in Hong Kong and presents our approach to sustainability and key performance during the year, as well as plans and targets for the future. 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 corporate website www.hkei.hk. More information about our governance practices, financial performance, and awards and recognition can be found in our [Annual Report](#).

Basis of Reporting

This report has been prepared in accordance with Global Reporting Initiative's (GRI) Sustainability Reporting Standards and Electric Utilities Sector Disclosures, as well as Hong Kong Exchanges and Clearing Limited's (HKEX) Environmental, Social and Governance (ESG) Reporting Guide. We have also made reference to the Sustainability Accounting Standards Board (SASB) Standards for Electric Utilities and Power Generators. A [GRI Content Index](#), an [HKEX ESG Content Index](#) and an [SASB Content Index](#) are available on our corporate website. These indexes cross reference relevant disclosures and provide specific information, if any, on individual disclosures.

We have applied the reporting principles of GRI's Sustainability Reporting Standards and HKEX's ESG Reporting Guide to define our report contents and ensure our report quality, including but not limited to "materiality", "quantitative", "balance" and "consistency". We have determined which topics to include in this report through a materiality assessment as elaborated in the chapter on [Our Business and Approach to Sustainability](#). Data collection and analysis for this report is based on relevant guidelines and standards, such as ISO 14064 for greenhouse gas (GHG) emissions and local government guidelines for energy and carbon audits for buildings. We set targets to help evaluate our impacts and performance over time and report on our achievement status against these targets in this report. Significant performance data of the latest three years are listed in the [Key Statistics](#) section with explanatory notes for easy comparison. To provide an unbiased picture of



our performance, we disclose both achievements and areas for improvement such as missed targets and complaints received. We adopt consistent methodologies to allow for meaningful comparison of data over time and any material changes in methodologies are indicated.

This report has also been prepared in alignment with recommendations from the international Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). Please refer to the chapter on [Running a Sustainable Business](#) in this report and the [Climate-related Disclosures Report](#) on our corporate website for details.

In this report, shareholders refer to holders of our Share Stapled Units and suppliers are business entities in direct commercial relationships 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 relationships) are not part of our workforce. All financial data are presented in Hong Kong dollars unless otherwise specified. Due to rounding, some reported figures may not add up to the total. The online version of this report contains links to videos, some of which are only available in Chinese.

Verification and Endorsement

In line with our commitment to promoting transparency concerning our sustainability impacts and performance and to managing those impacts responsibly, we have commissioned an independent third party to verify the contents of this report and assure their credibility. Details of the verification can be found in the [Verification Statement](#).

This report has been endorsed by the Sustainability Committee of our Board of Directors (the Board) and approved by the Board. Please refer to the chapter on [Our Business and Approach to Sustainability](#) for information about how the Board oversees the sustainability strategy, management, performance and reporting of the Group (refers to HK Electric Investments Limited and its subsidiaries).





2023 Performance Highlights



Environment & Awareness

Offshore liquefied natural gas terminal

commissioned in July

New gas-fired unit L12

synchronised in September and targeted for commercial operation in early 2024

~56%

of electricity output generated from natural gas

~33%

reduction in carbon emissions as compared to that in 2005

~0.66 kg/kWh

carbon intensity (CO₂e per electricity unit sold)

Full compliance with stipulated emissions caps

for sulphur dioxide, nitrogen oxides and respirable suspended particulates

>10 GWh

of green electricity generated from renewable energy installations of HK Electric and its Feed-in-Tariff customers

>100,000

participants in Happy Green Campaign

~800

employees engaged in a month-long in-house campaign on World Environment Day





Customer & Community Care

>99.999%

supply reliability rating for 27 consecutive years

(>99.9999% for four consecutive years if the power interruption incident on 19 April 2023, which is classified as a Major Event Day, is excluded as per international standards)

~\$38 million

of subsidies approved under Smart Power Building Fund

210

free Smart Power Energy Audits

>360,000

smart meters deployed since 2020

All 18 pledged Customer Service Standards

met or surpassed

4.7

average customer satisfaction rating on a 5-point scale

~52,000

households subsidised under Smart Power Care Fund

>10,000

elders connected through "CAREnJOY for the Elderly"



Employee Care & Safety

2

Lost Time Injuries

0.11

Lost Time Injury Frequency Rate

0.17

Lost Time Injury Severity Rate

>4,500

number of safety risk assessments

>2,300

number of safety inspections

30 hours

of training per employee on average

6.5%

employee voluntary turnover rate



A Word from our CEO



“HKEI is committed to the pursuit of net zero before 2050 and is working closely with the Government and other stakeholders on realising this shared goal.

”

During the reporting period, HKEI and HK Electric have transitioned smoothly to the “new normal” in the aftermath of the COVID-19 pandemic. As we continue to make great strides towards a greener future, I wish to express thanks to my predecessor, Mr. Wan Chi Tin, for his immense contributions in his long service with the Group and I am excited to move forward in my new role.

A new chapter in low-carbon energy

In July 2023, the new offshore liquefied natural gas terminal that HK Electric developed in partnership with CLP Power went into operation. This marked the opening of a new chapter in low-carbon power generation by enhancing Hong Kong’s fuel supply stability as well as bargaining power in the purchase of natural gas, facilitating the city’s decarbonisation.

Switching from coal to natural gas is a cleaner, reliable and cost-effective way to progressively transition towards net-zero electricity generation. In 2023, gas-fired power increased to about 56% of our total power output, resulting in a reduction in carbon emissions of about 33% as compared to that in 2005. Following the commissioning of three new gas-fired units under the 2019-2023 Development Plan and phasing-out of five coal-fired units, our gas-fired generation ratio is expected to rise to around 70% in 2024.

The new 2024-2028 Development Plan, announced in November 2023, outlines how HK Electric is moving forward with a \$22-billion investment in replacing ageing generating units, reinforcing the power grid and improving system resilience against extreme weather events. Under the new plan, we will proceed with building an additional gas-fired unit for commissioning in 2029.

Working towards net zero

HKEI is committed to the pursuit of net zero before 2050. To achieve this objective, we are working closely with the Government and other strategic partners in enabling zero-carbon energy imports from the Mainland. We will cease using coal for daily electricity generation by 2035 as part of our plan for meeting our interim science-based carbon reduction target.

We also established a new Decarbonisation Study Group in 2023 to explore potential applications of new technologies in renewables, hydrogen fuel, battery storage and importing zero-carbon energy such as nuclear power.

Learning from experience, striving for excellence

Excelling in electricity supply service has always been a priority for HK Electric. We strive to operate one of the most reliable transmission and distribution networks in the world by taking a proactive approach to ensuring the robustness of our power system. We are continuously investing in upgrading and expanding our power network to meet new electricity demand and improve the quality of our power supply.

Regrettably, on 19 April 2023, a fault incident occurred in our power system resulting in disruption of electricity supply to about 44,000 customers of up to 48 minutes. This incident was our first major supply disruption for over 30 years. Having conducted a thorough investigation and review, we have learned from this experience and implemented a series of follow-up actions to prevent reoccurrence.





Despite the 19 April incident, HK Electric was able to achieve a yearly supply reliability rating exceeding 99.999% for the 27th consecutive year. We believe our outstanding record of world-class power supply will continue to support Hong Kong's sustainable development in the face of volatility in the global energy market.

Innovating beyond boundaries

We are an organisation that embraces innovation. In 2018, we formalised our innovation journey by establishing the CEO-led Innovation Steering Committee. Since then, more than 200 digital transformation and technological projects have contributed to improving operational efficiency and achieving better outcomes for our business and stakeholders and three of these projects have been patented. In November 2023, we received the Sustainable Procurement Award (Large Corporation) - Supplier Collaboration and Innovation from the Green Council for our warehouse automation project.

Our management approach empowers sharing of knowledge and ideas. In 2023, we hosted an innovation conference with distinguished guests from diverse sectors. We also published our inaugural [Innovation Report](#) to share with our stakeholders about significant projects that are propelling our organisation forward.



During the year, impressive knowledge and creativity was also on display at HK Electric's Green Energy Dreams Come True Competition. This is an annual initiative under our Happy Green Campaign that encourages students to develop their own ideas for promoting decarbonisation on campus and in the community.

Building climate resilience together

Driven by human-caused climate change and boosted by the natural El Niño weather event, 2023 was the warmest on record around the world. In Hong Kong, our community felt the effects of climate change first hand as the city experienced its heaviest rainfall since records began 140 years ago.

HKEI is improving risk management and climate resilience in line with industry best practices. During the year, we conducted scenario analysis of potential climate-related financial impacts in line with recommendations from TCFD and completed technical studies on incorporating climate considerations into infrastructure design. More information about how we manage climate-related risks and opportunities is available in our first standalone [Climate-related Disclosures Report](#).

At HK Electric, we are continually pursuing energy-saving opportunities in our daily operations. In 2023, we achieved 3% annual savings of electricity consumption in our key office buildings with a series of energy saving measures. Since we cannot succeed in isolation, our Smart Power Services foster energy efficiency and conservation and promote renewable energy and low-carbon transition among our customers and in our community. We also engage extensively with the public, particularly younger generations, through the Happy Green Campaign. During the year, one of our initiatives under the campaign earned HK Electric a Gold award for Corporate Sustainability from the Hong Kong Public Relations Professionals' Association.



Caring for our society

Caring has always been a Core Value for HKEI. In 2023, we allocated \$95 million for various relief measures, including \$55 million to help disadvantaged households and non-residential customers save energy costs and improve electrical safety.

Our “Care and Share” programme was launched during the pandemic to support underprivileged families and help invigorate the local catering industry. Building on the success of this initiative, we distributed another round of dining coupons in 2023 benefitting 50,000 underprivileged households and over 200 small and medium-sized eateries.

In the aftermath of the pandemic, it is important to encourage isolated elders to reconnect with the community. After a three-year pause, we have resumed in-person “CAREnJOY” activities for the elderly, including home visits and electrical safety talks. We have also launched a new initiative entitled “CAREnJOY Fun & Joy” encouraging elders to participate in local outings.

Caring for our people

In 2023, HK Electric ranked among Hong Kong’s top twenty Most Attractive Employers in the Randstad Employer Brand Awards. To overcome labour supply challenges, we strive to retain experienced professionals and recruit young people embarking on new careers. We treat our colleagues fairly and reward their performance competitively while supporting their well-being.

We work hard to maintain our strong track record of keeping our people safe. The number of Lost Time Injuries among employees has remained consistently low in recent years, although there were two such incidents recorded in 2023. In accordance with our comprehensive Safety Management Systems, these incidents, albeit relatively minor ones, were thoroughly investigated and preventive measures were immediately put in place.

Leaping into a sustainable future

As we embark on the 2024-2028 Development Plan, I have confidence in the ability of our organisation to navigate the risks and opportunities ahead. I am grateful for the trust and confidence placed in me by the Board, colleagues and other stakeholders. I look forward to working with you all for a sustainable future.

Thank you for your continued support.

Francis Cheng

Chief Executive Officer
March 2024



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 focused exclusively on the energy sector. Share Stapled Units issued by the trust and HK Electric Investments Limited (collectively, HKEI) are listed on the Main Board of the Hong Kong Stock Exchange. The structure of the trust enables us to maintain a dedicated focus on delivering stable distributions to holders of our Share Stapled Units, while ensuring potential for long-term sustainable growth of the business.

Commencing operations in 1890, our main operating company, HK Electric, is one of the longest established utility companies in the world. HK Electric supplies electricity to more than 589,000 customers in Hong Kong. It operates a vertically integrated power utility under a Scheme of Control Agreement (SCA)

with the HKSAR Government. It has a power station on Lamma Island, known as Lamma Power Station (LPS).

Over the years, HK Electric has contributed immeasurably to the economic and social development of Hong Kong by supplying safe, reliable, clean and affordable electricity in line with our Vision, Missions and Core Values. To help combat climate change and support Hong Kong in achieving its decarbonisation agenda, we are transitioning from coal-fired to gas-fired power generation at LPS and increasing the use of renewable energy (RE), while exploring other zero-carbon energy solutions.

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



HK Electric – A Sustainable Future

OUR VISION

To excel in the power business in Hong Kong

OUR MISSIONS

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

OUR CORE VALUES

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



Our Value Chain

We integrate sustainability across our value chain as part of our management approach to transitioning our business towards carbon neutrality and achieving long-term sustainable growth.

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 values
- 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 2023)



Service territories

Hong Kong Island and Lamma Island



Installed generating capacity

3 gas-fired combined-cycle units: 1,095 MW

5 coal-fired units: 1,750 MW

1 solar power system: 1.4 MW

1 wind turbine unit (known as Lamma Winds): 0.8 MW

Other small-scale RE installations: 1 MW

5 oil-fired gas turbine units (for peak-logging): 555 MW

Total **3,403 MW**



Transmission and distribution network

High-voltage circuit length: 446 km

Medium-voltage circuit length: 4,281 km

Low-voltage circuit length: 2,241 km

Total **6,969 KM**



Operations

Number of customers: >589,000

Electricity sold: 10,040 million kWh



Workforce

Number of permanent employees: 1,657

Number of contract employees: 177



Economic contribution

Total capital expenditure: \$4,447 million

Distributable income: \$2,830 million

Notes: Reported figures may not add up to the total due to rounding.



Sustainability Governance

HKEI strives to operate a sustainable and responsible business in line with the principles of openness, integrity and accountability. Our approach to sustainability governance is built on a robust foundation of corporate governance and high ethical standards.

Our Sustainability Framework facilitates consistent implementation of sustainability practices in line with our Sustainability Policy and other key corporate policies and business priorities. Recently, we have reviewed and revised the Sustainability Framework and Policy. The framework now contains 15 focus areas representing the most material topics for HKEI and its stakeholders. These are organised into four strategic pillars based on our business nature with clear interlinkages to the United Nations' Sustainable Development Goals. The Framework helps us translate our values and commitments into measurable actions and targets, enabling consistent monitoring and evaluation of our performance and clear communication with our stakeholders.



Sustainability Governance Structure



Our commitment to sustainability cascades from the top of our organisation:

- ▶ Accountability for overall sustainability strategy, management, performance and reporting resides with the Board.
- ▶ The Board has delegated responsibility to its Sustainability Committee for overseeing development and implementation of sustainability initiatives, including reviewing related policies and practices and evaluating sustainability risks and opportunities. The Sustainability Committee also advises the Board on public communication and disclosures concerning the Group's sustainability performance and environmental and social impacts, including the annual Sustainability Report. The Sustainability Committee's [Terms of Reference](#) is available on our corporate website.
- ▶ At management level, the Sustainability Management Committee supports the Sustainability Committee in fulfilling its responsibilities. The Sustainability Management Committee meets quarterly and is chaired by the Chief Executive Officer. It drives and coordinates the Group's sustainability efforts and promotes understanding of sustainability within the Group.



Sustainability Management Committee



Rear

Alex Ng

Group Legal Counsel and Company Secretary

Wong Kim Man

Chief Financial Officer

Mimi Yeung

General Manager (Public Affairs)

Dennis Wu

General Manager (Human Resources)

Front

Kwan Ying Leung

Engineering Director

Francis Cheng

Chief Executive Officer

Bill Ho

General Manager (Corporate Development)

In 2023, the following issues were discussed at Sustainability Management Committee meetings and reported to the Sustainability Committee:



Policies and risk management on ESG matters



Sustainability goals, targets and performance



Climate-related studies and disclosures



Studies on biodiversity and water stress



Stakeholder engagement and community investment



Materiality assessment and sustainability reporting

As part of our commitment to continuous improvement, we participate in local and global benchmarking initiatives such as MSCI ESG Rating, S&P ESG Rating and Morningstar Sustainability ESG Risk Rating. As a result, HKEI has been showcased in the product repository of the Sustainable & Green Exchange (STAGE) established by HKEX.



Sustainability Framework

This framework is based on our **Vision, Missions** and **Core Values**, as well as our **Sustainability Policy** and **other Key Corporate Policies**

Commitment

Promoting sustainable development by operating our business in a responsible and transparent manner while meeting the long-term energy needs of the community we serve

Objective

Aiming to be a world-class energy supplier providing a safe, reliable, clean and affordable electricity supply and striving to be a good corporate citizen and an employer of choice

Approach

Integrating sustainability considerations into every aspect of our corporate culture and business operations and engaging with our stakeholders to create shared values

Strategic Directions



Running a Sustainable Business

Ensuring a strong foundation for supporting sustainable development

Material Areas

- 1.1 Securing a stable return and delivering long-term value for our investors
- 1.2 Upholding a high standard of corporate governance and disclosure
- 1.3 Managing key risks including those related to climate change effectively
- 1.4 Building mutual trust with our stakeholders
- 1.5 Fostering a culture of innovation



Sharing our Planet

Sustaining a beautiful and liveable planet for future generations

Material Areas

- 2.1 Combatting climate change
- 2.2 Minimising the environmental impacts of our operations and supporting circular economy
- 2.3 Promoting environmental awareness among our stakeholders



Serving Hong Kong

Making our home a prosperous, smart and caring city

Material Areas

- 3.1 Providing a reliable and affordable electricity supply
- 3.2 Delivering excellent customer service
- 3.3 Caring for the community



Working with Partners

Engaging with our employees and business partners to ensure safe and responsible business operations

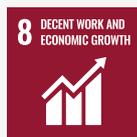
Material Areas

- 4.1 Respecting human rights
- 4.2 Caring for our employees and their families
- 4.3 Improving our health and safety performance continuously
- 4.4 Managing our supply chain responsibly

Supporting the United Nations' Sustainable Development Goals, specifically:



Goal 7
Affordable and Clean Energy



Goal 8
Decent Work and Economic Growth



Goal 9
Industry, Innovation and Infrastructure



Goal 11
Sustainable Cities and Communities



Goal 12
Responsible Consumption and Production



Goal 13
Climate Action



Materiality

We implement a robust process for updating our materiality assessment on a regular basis. The Sustainability Management Committee and Sustainability Committee review and endorse the outcomes of this process and receive updates on progress towards relevant goals and targets to evaluate our performance.

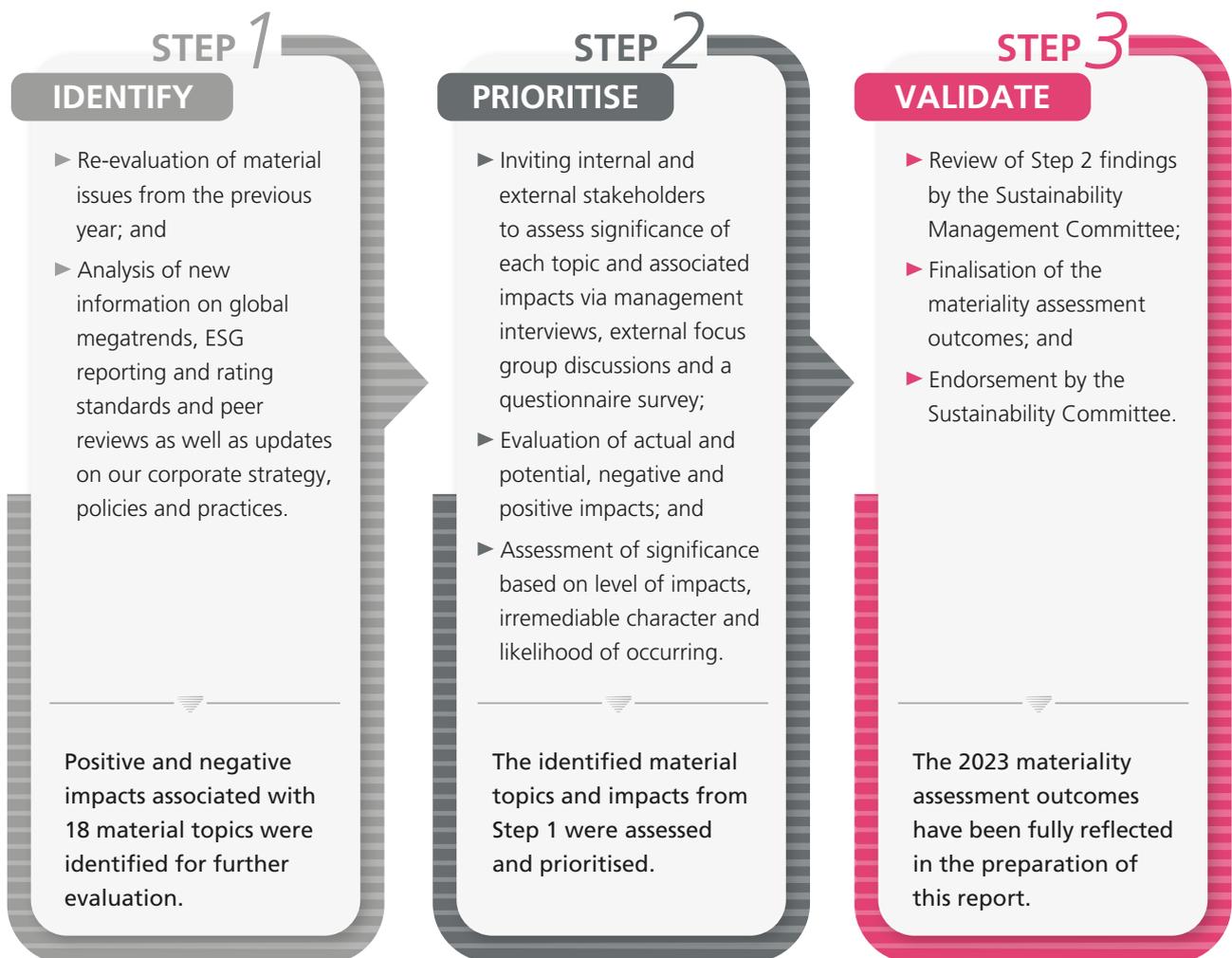
In 2023, we conducted a materiality assessment including a broader survey involving internal and external stakeholders, one-to-one management interviews and discussions with external focus groups. Our assessment approach has followed widely adopted sustainability reporting frameworks such as

GRI's Sustainability Reporting Standards with reference to our previous materiality assessments and stakeholder engagement exercises. A total of 18 material topics have been identified, evaluated and prioritised.

The outcomes of the materiality assessment help us refine our goals and targets and allocate our resources more effectively so that we can create shared values for the Group and our stakeholders.



2023 Materiality Assessment Process





2023 Materiality Matrix

The materiality matrix below summarises the relative importance of the 18 material topics according to their significance for HKEI and its stakeholders. The numbers in brackets against each material topic reference the relevant material areas in our Sustainability Framework.



- Running a Sustainable Business**
- 1 Upholding business ethics (1.2)
 - 2 Bolstering contingency preparedness (1.2, 4.3)
 - 3 Ensuring effective corporate governance (1.2, 1.3)
 - 4 Enhancing economic performance (1.1)
 - 5 Engaging with stakeholders (1.4)
 - 6 Fostering innovation to drive initiatives (1.5)
 - 7 Strengthening climate resilience and adaptation strategies (1.3)

- Sharing our Planet**
- 8 Combatting climate change (1.3, 2.1)
 - 9 Implementing responsible environmental management for a circular economy (2.2, 3.2)
 - 10 Promoting low-carbon behaviour (2.3)

- Serving Hong Kong**
- 11 Ensuring supply reliability and asset integrity (3.1)
 - 12 Facilitating access to electricity and promoting affordability (3.1)
 - 13 Safeguarding customer privacy, health and service quality (3.2, 4.3)
 - 14 Promoting community relations and investments (2.3, 3.3)

- Working with Partners**
- 15 Prioritising occupational health and safety (4.3)
 - 16 Managing human capital effectively (1.2, 4.1, 4.2)
 - 17 Establishing a sustainable supply chain (1.2, 4.1, 4.4)
 - 18 Upholding and managing human rights (1.2, 4.1)



2023 Materiality Assessment Outcomes

Impacts of the material topics identified are listed below in descending order of impact level under each strategic direction of our Sustainability Framework.



Running a Sustainable Business

 POSITIVE IMPACT	Material Topic	NEGATIVE IMPACT
<ul style="list-style-type: none"> Minimise disruption to the local economy/communities caused by critical events through effective contingency planning. 	Bolstering contingency preparedness	May result in catastrophic consequences for workers, local communities and the environment, if failing to respond promptly and effectively to critical incidents.
<ul style="list-style-type: none"> Reduce potential loss of life, damage to property and infrastructure, and economic disruption by enhancing preparedness for climate-related impacts. 	Strengthening climate resilience and adaptation strategies	Result in potential threats to life and property, if failing to strengthen climate resilience and adaptation strategies.
<ul style="list-style-type: none"> Promote integrity among employees, suppliers, contractors and other business partners and gain trust from key stakeholders, such as investors and customers. 	Upholding business ethics	Impact the way employees, suppliers, contractors and other business partners do their job and reduce public trust in the fairness and integrity of businesses in the industry, if failing to maintain a high standard of ethics.
<ul style="list-style-type: none"> Provide direction on how the Group achieves its goals, controls risk, benefits its stakeholders and the natural environment and creates and safeguards long-term shareholder values. 	Strengthening climate resilience and adaptation strategies	May require significant financial resources to mitigate damage caused by extreme weather events.
<ul style="list-style-type: none"> Support transformation of the energy industry to a low-carbon economy through ongoing commitment to innovation and collaboration with stakeholders. 	Ensuring effective corporate governance	Heighten exposure to legal, regulatory and reputational risks, which in turn impacts shareholder values and by extension the wider community, if effective governance is not in place.
<ul style="list-style-type: none"> Achieve economic, social and environmental enhancement through robust business planning and development that ensures a reliable and sustainable power supply. 	Fostering innovation to drive initiatives	Impede the advancement of low-carbon transition and the realisation of 2050 carbon neutrality goal, if failing to implement innovation and digital transformation projects.
<ul style="list-style-type: none"> Promote social and economic development of society, increase public awareness of sustainability and build mutual understanding and trust with stakeholders. 	Enhancing economic performance	May impose economic, social and environmental burden on local communities if failing to sustain and improve the Group's economic performance.
<ul style="list-style-type: none"> Promote social and economic development of society, increase public awareness of sustainability and build mutual understanding and trust with stakeholders. 	Engaging with stakeholders	Reduce ability to promote stakeholder ownership and support for sustainable development, if failing to communicate effectively.



Sharing our Planet



POSITIVE IMPACT

- Help alleviate climate change and in turn benefit society by reducing GHG emissions through increasing gas-fired generation, phasing out coal-fired generation and supporting zero-carbon energy applications such as RE.
- Safeguard the well-being of ecosystems and communities by minimising our environmental footprint.
- Boost economic activities and provide new employment opportunities and skills development throughout the course of low-carbon transition.
- Reduce GHG emissions through energy saving.
- Reduce waste generation and extend the lifespan of products, leading to improved resource efficiency and lower environmental impacts associated with resource disposal.

Material Topic

- Combatting climate change
- Implementing responsible environmental management for a circular economy
- Combatting climate change
- Promoting low-carbon behaviour
- Implementing responsible environmental management for a circular economy

NEGATIVE IMPACT

- Lead to air pollution and anthropogenic climate change, which affects all of society and causes negative impacts on the health, lives, livelihoods and human rights of millions of people, if continuing to rely on coal-fired power generation.
- Pose harmful environmental and health impacts to the ecosystems and communities in proximity to operating sites, if environmental impacts are not managed responsibly.
- Pose potential impacts on workers and local communities, e.g., due to closure of coal-related facilities for transition to a low-carbon economy, if there are inadequate provisions for a just transition.
- Result in potential pushback from the community for substantial costs involved in decarbonisation initiatives, if no provision for energy saving is provided.





Serving Hong Kong



POSITIVE IMPACT

- Deliver a reliable power supply to support the social and economic development of local communities.
- Enhance customer trust and satisfaction by delivering high quality services and strictly protecting personal data.
- Ensure that even low-income and vulnerable households can enjoy reliable and affordable electricity.
- Encourage and promote effective public, public-private and civil society partnerships to build an inclusive and sustainable community.

Material Topic

- Ensuring supply reliability and asset integrity
- Safeguarding customer privacy, health and service quality
- Facilitating access to electricity and promoting affordability
- Promoting community relations and investments

NEGATIVE IMPACT

- Cause disruptions to society and the economy due to unreliable power supply.
- May lead to bad customer experiences and leakage/misuse of personal data or unauthorised access to such data, if suitable policies and initiatives are not in place.
- Increase the number of households living under the energy poverty line and limit business growth, if failing to ensure accessible and affordable electricity for those in need.
- Give rise to potential dissatisfaction of community members with the Group's business operations and development, due to lack of consultation and collaboration.

Working with Partners



POSITIVE IMPACT

- Promote greater hazard awareness, improve risk management, prevent illness and promote healthy lifestyles, hence providing lasting benefits for workers, their families and the public.
- Promote respect for human rights and build trust with stakeholders.
- Promote sustained and inclusive economic growth and personal, social and economic well-being through providing stable and decent jobs and expanding the knowledge and skills of colleagues.
- Promote social and environmental responsibility throughout our supplier network.

Material Topic

- Prioritising occupational health and safety
- Upholding and managing human rights
- Managing human capital effectively
- Upholding and managing human rights
- Establishing a sustainable supply chain

NEGATIVE IMPACT

- Increase the risk of work-related illness, injury and death, if failing to implement sufficient health and safety procedures.
- Lead to reduction in decent job opportunities and negative impacts on operations, if failing to effectively manage human capital.
- May result in infringement of human rights, if failing to effectively manage human rights issues.
- Increase negative social and environmental impacts if suppliers fail to adopt adequate management policies and practices.



Sustainable Development Goals and Targets

HKEI supports the United Nations’ 2030 Agenda for Sustainable Development and 17 Sustainable Development Goals (SDGs), which aim to end poverty, protect the planet and ensure peace and prosperity for all people by 2030. In 2019, we identified three SDGs that align most closely with our corporate strategy and business priorities. These are Affordable and Clean Energy (Goal 7), Industry, Innovation and Infrastructure (Goal 9) and Climate Action (Goal 13). We established targets to gauge our progress towards helping achieve these three SDGs and report annually on our performance against these targets.

In 2023, we conducted a review of our potential contribution to the 17 SDGs based on our latest developments. As a result, we included three more SDGs in our pledge, namely Decent Work and Economic Growth (Goal 8), Sustainable Cities and Communities (Goal 11) and Responsible Consumption and Production (Goal 12). We also established a new set of targets to evaluate our contribution towards realising all six SDGs.

In addition, we seek to align our sustainability efforts with other SDGs to make an even greater impact across our value chain.

Progress on Targets Previously Set for Three Material SDGs

7
AFFORDABLE AND CLEAN ENERGY

Goal 7:
Affordable and Clean Energy

Our targets

Status in 2023

<p>Maintain a safe and reliable electricity supply:</p> <ul style="list-style-type: none"> ▶ Maintain a yearly supply reliability rating of better than 99.999%	.....	<div style="border: 1px solid #f0ad4e; border-radius: 10px; padding: 5px; display: inline-block;"> ★ ACHIEVED </div>
<p>Gain access to diverse and cost-competitive liquefied natural gas (LNG) supplies worldwide to alleviate considerable pressure on electricity tariffs due to increased consumption of natural gas:</p> <ul style="list-style-type: none"> ▶ Commission the offshore LNG terminal in 2023	.....	<div style="border: 1px solid #f0ad4e; border-radius: 10px; padding: 5px; display: inline-block;"> ★ ACHIEVED </div>
<p>Provide subsidies to underprivileged households for adopting energy-efficient electrical appliances:</p> <ul style="list-style-type: none"> ▶ Subsidise 4,000 households by 2023	.....	<div style="border: 1px solid #f0ad4e; border-radius: 10px; padding: 5px; display: inline-block;"> ★ ACHIEVED </div>
<p>Increase the use of RE:</p> <ul style="list-style-type: none"> ▶ Increase the aggregate electricity generated from RE sources of HK Electric and its customers to over 9 GWh/year by 2023	.....	<div style="border: 1px solid #f0ad4e; border-radius: 10px; padding: 5px; display: inline-block;"> ★ ACHIEVED </div>
<p>Provide free energy audits for non-residential customers and subsidies to building owners for implementing energy efficiency enhancement projects:</p> <ul style="list-style-type: none"> ▶ Complete 1,000 audits and subsidise 500 buildings by 2023	.....	<div style="border: 1px solid #f0ad4e; border-radius: 10px; padding: 5px; display: inline-block;"> ★ ACHIEVED </div>

Status in 2023 ★ ACHIEVED 🚧 IN PROGRESS ☐ NOT ACHIEVED



Goal 9:

Industry, Innovation and Infrastructure

Our targets

Status in 2023

Enhance asset integrity in the face of climate change:

ACHIEVED

- ▶ Complete anti-flooding enhancement for low-lying substations within 100 m of Hong Kong Island northern coastal line by 2021

Deploy smart meters:

IN PROGRESS

- ▶ Complete full-scale smart meter deployment by 2025

The roll-out of smart meters was ~60% complete as at the end of 2023.



Goal 13:

Climate Action

Our targets

Status in 2023

Replace coal-fired units with gas-fired units to reduce carbon emissions:

IN PROGRESS

- ▶ Commission three new gas-fired units, L10, L11 and L12, in 2020, 2022 and early 2024 respectively



L10 and L11 were commissioned in February 2020 and May 2022 respectively, while L12 was synchronised in September 2023 and targeted for finishing the commissioning in early 2024.

Reduce carbon emissions per electricity unit sold:

NOT ACHIEVED

- ▶ Ensure yearly average emissions do not exceed 0.6 kg of CO₂e per kWh by 2023

The yearly average emissions in 2023 was ~0.66 kg of CO₂e per kWh of electricity sold, which was higher than originally expected. This could be attributed to postponed commissioning of the offshore LNG terminal and gas-fired unit, L12, due to unexpected challenges arising from logistic issues during the COVID-19 pandemic.

Engage stakeholders on combatting climate change and adopting low-carbon lifestyles:

ACHIEVED

- ▶ Organise 1,200 education and promotion activities by 2023

Build capacity in HK Electric's supply chain:

ACHIEVED

- ▶ Update Code of Practice for Suppliers to address concerns about climate change in 2020

Status in 2023 **ACHIEVED** **IN PROGRESS** **NOT ACHIEVED**



New Targets for Six Material SDGs

7 AFFORDABLE AND CLEAN ENERGY



Goal 7:

Affordable and Clean Energy

Maintain a safe and reliable electricity supply:

- ▶ Maintain a yearly supply reliability rating of better than 99.999%

Alleviate the impact on reliability of fuel supply and the pressure on electricity tariffs due to volatility in global fuel market:

- ▶ Continue to source worldwide cost-competitive fuels of suitable quality to meet fuel demand.

Increase the use of RE:

- ▶ Increase aggregate electricity generated from RE sources of HK Electric and its customers to over 15 GWh/year by 2028

Provide free energy audits for non-residential customers and subsidies to building owners for implementing energy efficiency enhancement projects:

- ▶ Complete 1,000 audits and subsidise 500 buildings during the period from 2024 to 2028

Promote electrification to improve energy efficiency and reduce carbon emissions:

- ▶ Support 100 construction sites to use grid-electricity supply to replace diesel generators during the period from 2024 to 2028
- ▶ Support 20,000 parking spaces to install electric vehicle (EV) charging-enabling infrastructure during the period from 2024 to 2028
- ▶ Support 500 businesses to adopt energy-efficient electrical equipment for business operations during the period from 2024 to 2028

8 DECENT WORK AND ECONOMIC GROWTH



Goal 8:

Decent Work and Economic Growth

Encourage innovation and use of new technology for enhancing productivity and operational effectiveness:

- ▶ Continue to introduce innovative problem-solving tools and technology updates to employees through in-house trainings and sharing sessions
- ▶ Continue to introduce innovative initiatives to enhance productivity and operational effectiveness

Ensure employees are paid fairly:

- ▶ Continue to implement a pay-for-performance policy

Promote and incentivise health and safety:

- ▶ Hold at least two webinars and one forum per year
- ▶ Continue to implement a Safety Excellence Scheme and Safe Driving Incentive Scheme

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Goal 9:

Industry, Innovation and Infrastructure

Enhance asset integrity in the face of climate change:

- ▶ Complete a retro-commissioning project for one office building at LPS to optimise use of energy by 2025
- ▶ Retrofit substations with floor level of less than +6 m PD (Principal Datum) and within the areas identified by the relevant government department as subject to storm-surge impacts with flooding alarms and bund walls in two phases:
 - Phase I: Complete retrofitting work for substations situated within 100 m of coastline by 2024
 - Phase II: Complete retrofitting work for substations situated outside 100 m of coastline by Q2 2026

Deploy smart meters:

- ▶ Complete full-scale deployment by 2025

11 SUSTAINABLE CITIES AND COMMUNITIES**Goal 11:**Sustainable
Cities and
Communities**Engage business partners & targeted stakeholders on smart zero-carbon caring city & sustainability:**

- ▶ Arrange 100 engagement activities such as workshops and seminars during the period from 2024 to 2028

Reduce emissions of air pollutants from power generation:

- ▶ Control yearly emissions of sulphur dioxide, nitrogen oxides and respirable suspended particulates to within the emission caps stipulated in the relevant Technical Memorandum under the Air Pollution Control Ordinance

Support the wider use of EVs to reduce carbon emissions and improve local air quality:

- ▶ Increase the proportion of EVs in the corporate fleet to 55% by 2025

12 RESPONSIBLE CONSUMPTION AND PRODUCTION**Goal 12:**Responsible
Consumption
and Production**Minimise the impact on marine ecology arising from use of seawater for cooling generating units:**

- ▶ Commission a fish deterrent system at No. 5 CW Intake (for Unit L12) at LPS in 2024 to deter fish from swimming too near to the cooling water intake culverts

Conserve natural resources & reduce waste generation:

- ▶ Reduce total electricity consumption, water consumption, paper consumption and waste generation of 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 2025 as compared to that in 2020
- ▶ Collect 5,000 kg of used lead-acid batteries for recycling by local recyclers each year during the period from 2024 to 2028

**13** CLIMATE ACTION**Goal 13:**Climate
Action**Replace coal-fired units with gas-fired units to reduce carbon emissions:**

- ▶ Commission a new gas-fired unit, L13, in early 2029

Reduce carbon emissions per electricity unit sold:

- ▶ Ensure yearly average emissions do not exceed 0.5 kg of CO₂e per kWh by 2029

Engage the public on combatting climate change and adopting low-carbon lifestyles

- ▶ Organise 1,600 education and promotion activities during the period from 2024 to 2028

Build capacity in HK Electric's supply chain:

- ▶ Conduct a Sustainable Procurement Survey with key suppliers in 2024 to enhance their awareness of climate change and related topics



Other Sustainability Targets

HKEI plays a crucial role in supporting Hong Kong’s economic and social development. As a responsible business, we recognise our duty of care for the environment, the community, our employees and other stakeholders. To affirm these commitments, we regularly review our performance and set specific goals and targets.

Outlined below are the targets we set in the areas of Environment, Health & Safety and Partners & Community, in addition to those in support of the SDGs. More specific targets on how we manage climate-related issues, including transition towards net zero, can be found in our [Climate-related Disclosures Report](#).

Status of Targets for 2023

Environment 	
Collect at least 80,000 m ³ of plant effluent and rainwater for reuse at LPS in 2023	
Plant at least one more species of native trees or shrubs at LPS in 2023 to support biodiversity	
Reduce food waste at the canteen of LPS in 2023 as compared to that in 2022	
Reduce fuel usage of vehicle fleet in 2023 as compared to that in 2022	
Increase the proportion of EV mileage in the fleet mileage in 2023 as compared to that in 2022	 ^[1]
Obtain at least one Wastewi\$e Certificate and one Energywi\$e Certificate under the Hong Kong Green Organisation Certification Scheme in 2023	
Conduct retro-commissioning of a building at LPS by 2023	

Health & Safety 	
Achieve a reduction in the Lost Time Injury Frequency Rate in 2023 as compared to the average over the previous three years	 ^[2]
Achieve a reduction in the Lost Time Injury Severity Rate in 2023 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 2023	
Organise a series of health talks and interest classes to enable our employees to maintain a healthy and balanced lifestyle in 2023	

Partners & Community 	
Fulfil all our customer service pledges, embracing supply reliability, speediness of provision of supply and other customer services, including emergency services, in 2023	
Complete at least 200 audits under Smart Power Energy Audit in 2023, particularly for NGOs, schools and SMEs	
Confirm energy efficiency enhancement project subsidies for at least 100 buildings in 2023, including residential buildings, commercial buildings, NGO premises and schools	
Launch a promotion programme on electronic billing and the HK Electric App in 2023 to encourage more customers to switch to electronic services	
Further expand the Plant Ownership Programme at LPS by adding at least one new project in 2023 to enhance plant reliability and availability, and to facilitate development of young engineers	
Support 12,000 senior citizens through various community programmes in 2023	
Engage 45,000 fans via our corporate and campaign Facebook pages in 2023	
Conduct a briefing on environment, social responsibility and cybersecurity aspects to selected suppliers in 2023	

Status

 **ACHIEVED**

 **NOT ACHIEVED**

Notes:

[1] The proportion of EV mileage in the fleet mileage in 2023 was 62.3% (c.f. 62.9% in 2022).

[2] Please refer to the [Working with Partners chapter – Health & Safety section](#).

Targets for 2024

Environment

- Collect at least 80,000 m³ of plant effluent and rainwater for reuse at LPS in 2024
- Plant at least one more species of native trees or shrubs at LPS in 2024 to support biodiversity
- Reduce food waste at the canteen of LPS in 2024 as compared to that in 2023
- Reduce fuel usage per registered non-EV of vehicle fleet in 2024 to a level not more than that in 2023
- Increase total mileage of EV of vehicle fleet to exceed total mileage of non-EV in 2024
- Obtain at least one Wastewi\$e Certificate and one Energywi\$e Certificate under the Hong Kong Green Organisation Certification Scheme in 2024
- Reduce production of ash and gypsum at LPS by 37% in 2024 as compared to that in 2019
- Improve the average Power Usage Effectiveness of two data centres at Electric Centre and Electric Tower by 5% in 2024 as compared to that in 2019
- Conduct retro-commissioning of Hongkong Electric Centre in 2024

Health & Safety

- Achieve a reduction in the Lost Time Injury Frequency Rate in 2024 as compared to the average over the previous three years
- Achieve a reduction in the Lost Time Injury Severity Rate in 2024 as compared to the average over the previous three years
- Obtain at least three Excellent Class IAQ Certificates under the Government's IAQ Certification Scheme in 2024
- Organise a series of health talks and interest classes to enable our employees to maintain a healthy and balanced lifestyle in 2024



HK Electric - Your Partner for a Low-Carbon Future

Partners & Community

- Fulfil all our customer service pledges, embracing supply reliability, speediness of provision of supply and other customer services, including emergency services, in 2024
- Complete at least 200 audits under Smart Power Energy Audit in 2024, particularly for NGOs, schools and SMEs
- Confirm energy efficiency enhancement project subsidies for at least 100 buildings in 2024, including residential buildings, commercial buildings, NGO buildings and schools
- Launch a promotion programme on electronic billing and the HK Electric App in 2024 to encourage more customers to switch to electronic services
- Further expand the Plant Ownership Programme at LPS by adding at least one new project in 2024 to enhance plant reliability and availability, and to facilitate development of young engineers
- Involve 120,000 participants in green education activities in 2024
- Engage 55,000 fans via our corporate and campaign Facebook pages in 2024
- Key divisions/departments perform fraud-risk assessment by 2024 to identify areas prone to fraud risks and enhance employee awareness of fraud risks





Running a Sustainable Business

Sharing our Planet

Serving Hong Kong

Working with Partners

Investing for the

Future





Running a Sustainable Business

Overview

HKEI's business is carried out both by and on behalf of key stakeholder groups, including shareholders, employees, suppliers and business partners, as well as customers, local communities and government authorities. We strive to fulfil our Vision, Missions and Core Values by integrating sustainability into every aspect of our work as outlined in our Sustainability Policy and Sustainability Framework. We prioritise consistent, open and effective communication to deliver shared values by understanding our impacts and responding and adapting to developments in a rapidly changing world.

Good corporate governance and sustainable business practices go together. Our corporate governance policies are aligned with the Corporate Governance Code in the Listing Rules of the Hong Kong Stock Exchange. Our commitment to upholding high ethical standards throughout our value chain underpins the efficiency and transparency of our operations, attracts investment, enhances shareholder value and helps protect the rights of all stakeholders.

We support a fair and inclusive transition to a low-carbon economy in our role as a public utility and responsible corporate citizen. Technological improvements and innovation will be crucial for navigating the low-carbon transition, particularly for managing climate-related risks and mitigating the impact of rising energy costs on vulnerable members of our community. We nurture talent to lead HKEI's innovation efforts by encouraging measured risk-taking and creative problem-solving among our employees.

Key Corporate Policies

The following key [corporate policies](#) are available on our corporate website.

Corporate governance policies

- › Anti-Fraud and Anti-Bribery Policy
- › Board Diversity Policy
- › Code of Conduct
- › Director Nomination Policy
- › Holder of Share Stapled Units Communication Policy
- › Information Security Policy
- › Media, Stakeholder Engagement and Donation Policy
- › Personal Data Privacy Policy
- › Policy on Inside Information and Securities Dealing
- › Whistleblowing Procedure

Sustainability policies

- › Sustainability Policy
- › Code of Practice for Suppliers
- › Complaints Handling Policy
- › Corporate Security Policy
- › Customer Services Policy
- › Environmental Policy
- › Health & Safety Policy
- › Human Rights Policy
- › Learning and Development Policy
- › Quality Policy





Sustainable Long-term Growth

We strive to excel in the power business, supporting sustainable development of Hong Kong with safe, reliable, clean and affordable electricity while delivering long-term value to our investors. We acknowledge the urgency of reducing GHG emissions to mitigate the worst effects of climate change and we are collaborating with the Government on the best way forward to achieve carbon neutrality in Hong Kong.



To achieve our Vision and Missions, we are guided by **three long-term strategies**

World Class Power for a World Class City

We will maintain world-class supply reliability and customer service, which is essential for Hong Kong's continued economic success. At the same time, we are embracing innovation and new technologies to help transform Hong Kong into a green and smart city with a high quality of life.

We are investing in various decarbonisation initiatives, including switching from coal to gas. Our target is to phase out the entire coal-fired power generation fleet at LPS by 2035. We are also introducing smart meters throughout our distribution network, promoting energy efficiency and conservation (EE&C) and RE in the community, as well as facilitating widespread use of EVs.

Steady Growth in our Asset Base

We will continue to undertake pragmatic investments in power generation, transmission and distribution. These investments will enable steady growth in our asset base, which in turn will generate stable and growing returns for our long-term investors.

Having already made considerable progress towards decarbonising our business by prioritising coal-to-gas transition, we welcome the Government's plan to achieve net-zero electricity generation in Hong Kong before 2050. To realise this shared goal, we are working closely with the Government and other strategic partners in enabling zero-carbon energy imports from the Mainland. We are also exploring potential applications of new technologies in zero-carbon energy solutions.

Prudent Financial Management and Efficient Operations

Prudent financial management is essential in the current environment of heightened risk and rising prices. We will maintain an optimal capital structure with strong liquidity and strive to minimise our operating costs to safeguard the affordability of electricity supply for our customers. At the same time, we will continue to deliver sustainable returns for our investors.



Corporate Governance



As the highest governance body of the Group, the Board is responsible for overseeing our corporate governance framework, which addresses a broad range of ESG topics that are material to our business. In accordance with our Board Diversity Policy, members of the Board contribute an appropriate balance of skills, experiences and perspectives.

The Board is assisted by its Sustainability Committee in overseeing implementation of our Sustainability Framework and by its Audit Committee in ensuring appropriate and effective risk management and internal control systems are in place. The Sustainability Committee meets twice a year and the Audit Committee meets quarterly to review progress. These Board committees are in turn supported by management committees chaired by the Chief Executive Officer, namely the Sustainability Management Committee and the Risk Management Committee.

Our Compliance Framework ensures company-wide compliance with legal and regulatory obligations. In accordance with our Anti-Fraud and Anti-Bribery Policy, the Board oversees relevant initiatives across the Group, including risk management, internal controls, training and monitoring. Executive Directors support the Board to ensure effective implementation of these initiatives, including investigating alleged/suspected incidents of fraud or corruption. In 2023, there were no instances of material non-compliance with laws and regulations. There were also no ongoing or concluded legal cases regarding corrupt practices brought against the Group or its employees.

For more information on our corporate governance and risk management, please refer to our [Annual Report](#).



Risk Management

Responsibility for risk management cascades from the Board throughout all levels and operating units of our organisation. Our Enterprise Risk Management Framework comprises top-down and bottom-up approaches to proactively identifying, assessing, mitigating and monitoring material business, financial, operational and compliance risks, including ESG risks such as those related to climate change. We conduct continuous risk monitoring and regular risk reviews to ensure timely action.

We have listed climate-related transition and physical risks in our corporate top risk register, which are reviewed by the Sustainability Management Committee and Sustainability

Committee, as well as the Risk Management Committee and Audit Committee. For more information about our approach to managing climate-related risks, please refer to our [Climate-related Disclosures Report](#).

To ensure business continuity and effective response to emergency situations, we have a Crisis Management Plan (CMP) in place supplemented by contingency plans for individual business units. A Crisis Management Team will be operationalised to execute the CMP under certain scenarios. We conduct regular drills to strengthen the efficacy of our crisis plans and procedures.





Business Ethics

All HKEI employees are accountable for upholding high standards of business ethics, regardless of their role within the Group. We are continuously evaluating, updating and refining our management approach to business ethics to ensure that our systems are effective and robust.

We provide training on anti-corruption to Board members and employees. New employees receive training on our Code of Conduct as part of their Orientation Programme, which includes information about fraud and bribery prevention and our Whistleblowing Procedure. We also hold two briefing sessions on anti-corruption and the Prevention of Bribery Ordinance annually for employees. Attendance is compulsory for all new hires within their first year of employment with us. Consequently, nearly 100% of employees have received anti-corruption training.

HKEI's Whistleblowing Procedure is accessible in local languages on our Corporate Intranet Portal as well as on our corporate website. It enables and encourages employees, suppliers, customers and other third parties to report potential improprieties to the Group. Our dedicated whistleblowing communication channel is accessible 24/7. In 2023, there were four reported whistleblowing cases, one of which involved breach of the Code of Conduct. There were no convicted cases of corruption.

Our business units undergo anti-bribery risk assessments twice a year and are required to report bribery and corruption incidents quarterly to the Internal Audit Department. In 2023, all 13 business units were assessed for fraud and corruption risks.

Fraud risk assessment and anti-fraud control is a prominent theme of internal audits, especially for business units that are more susceptible to this kind of risk, such as procurement. Our contract terms and conditions establish clear expectations for business ethics among other sustainability requirements. These expectations are communicated in our tendering or bidding documents. All suppliers and contractors are expected to align with our Code of Practice for Suppliers and to uphold similar standards within their own operations.



Advancing Business Ethics

In 2023, we conducted a **fraud risk assessment survey** and / or **anti-fraud control review** across five business units.

Board members were provided with training on anti-corruption topics. We also launched an **Anti-Fraud Tips Corner** on our Corporate Intranet Portal, where employees can access self-learning courses to improve their skills in handling fraud and corruption or other ethical challenges.



During the year, we ran two webinars on the Prevention of Bribery Ordinance attended by **over 280 employees**, as well as seven workshops for managers on practical applications of the Anti-discrimination Ordinance. In a collaborative initiative with the Independent Commission Against Corruption, we hosted a training session on "Integrity in Procurement" with participation from **more than 400 employees**.



Guidance on Business Ethics

- **Code of Conduct** – Supplemented by comprehensive human resources policies and procedures to provide guidance for employees on ethical issues;
- **Anti-Fraud and Anti-Bribery Policy and Fraud Prevention and Awareness Policy** – Supplemented by a biannual anti-bribery and anti-corruption control assessment to minimise exposure to fraud and bribery risks;
- **Human Rights Policy** – Uphold human rights across the organisation and encourage stakeholders throughout our value chain to protect and promote human rights;
- **Intellectual Property Policy and Copyright Guidelines** – Protect our own intellectual property and avoid infringing the rights of third parties;
- **Whistleblowing Procedure** – Provide channels and guidance for employees and other stakeholders to report instances of suspected impropriety, misconduct or malpractice; and
- **Code of Practice for Suppliers** – Encourage suppliers to uphold high standards of business conduct related to ethics, human and labour rights, health and safety, environmental protection, climate action and cybersecurity.



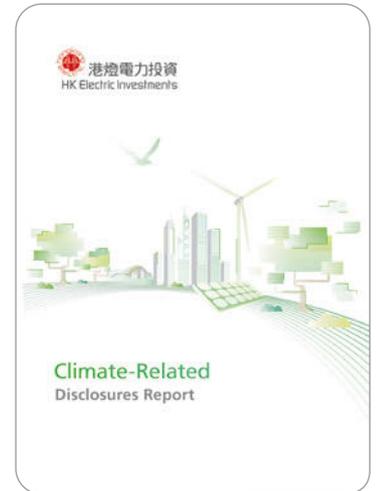
Climate-related Disclosures

Climate change is one of the greatest challenges facing humanity. The World Economic Forum’s Global Risks Report 2023 ranks “failure to mitigate climate change” and “failure of climate change adaptation” as the two top long-term threats to our planet. However, the prospect of transitioning to a low-carbon economy also presents tremendous opportunities. With foresight, early action and transparency we can transform potential risks into opportunities for our business and our community.

HKEI is dedicated to continuous enhancement of risk management processes in line with global and local best practices such as recommendations from TCFD and guidance from HKEX. We have conducted scenario analyses to estimate the financial implications of climate-related risks and opportunities. We are also undertaking technical studies to review the resilience of our operations, such as a study focused on overtopping waves that was completed during the reporting period.

We regularly inform our stakeholders about climate-related risks and opportunities for our business and our strategies for climate mitigation, adaptation and resilience. For more information about our approach to managing climate-related risks and opportunities, please refer to our [Climate-related Disclosures Report](#).

This aligns with TCFD’s recommendations to provide insights across four thematic areas of Governance, Strategy, Risk Management, and Metrics and Targets.



Integrating Climate Resilience into Infrastructure

In 2023, we undertook a rigorous analysis of wave overtopping risks at 17 strategic locations housing our power generation and transmission assets, including LPS and its Extension, shoreline areas near transmission and distribution substations, and key transmission cable structures. The study assessed potential of flooding and wave force driven by extreme typhoon conditions, factoring in progressive sea-level rise and projections for escalating intensity of typhoons.

The findings of this study help equip our business units with data for targeted mitigation measures so that we can continue to protect our facilities. We have revised our Design Guidelines for New Generation and Transmission Facilities to address conventional climate considerations, such as sea-level rise, storm surge, extreme rainfall, increased temperatures and intensified



- Flood gates installed at substations

wind strength. We are now also integrating strategies for counteracting risks associated with wave overtopping, such as measures to prevent cable and switchgear damage due to wave-overtopping near coastal areas and flooding due to severe rainfall.



Stakeholder Engagement

Guided by our Media, Stakeholder Engagement and Donation Policy, we engage in open and effective dialogue with key stakeholder groups representing people who are impacted by and/or who have influence over our operations and value chain. Our formal stakeholder engagement process supports sustainable development of our business by providing comprehensive information about stakeholders' concerns and expectations regarding potential or actual impacts of our business on the environment, society and economy.

Our Sustainability Management Committee reviews the efficacy of our stakeholder engagement on a biannual basis. We have a stakeholder engagement digital platform in place to facilitate business units to strategise, plan, record and review stakeholder

engagement activities. In 2023, we have consistently engaged with stakeholders to ensure transparent communication of our sustainability milestones and address their concerns.

Just transition is a prominent topic in the current discourse on low-carbon economy and carbon neutrality. HKEI advocates a just transition that is fair and inclusive for employees, customers and the community. We actively support our workforce through training and alternative career opportunities, and we are engaged in regular communication and dialogue with various other stakeholder groups. In line with our Human Rights Policy, we uphold human rights throughout our value chain and encourage our business partners to do the same.



Engaging with our Stakeholders

Stakeholder groups	Why are their views important?	Usual engagement channels
Customers	Electricity is a daily necessity.	1, 2, 3, 4, 5, 6
Shareholders and Investors	We are accountable to them regarding their interests.	1, 2, 6
Employees	We have a responsibility to care for the well-being of our employees and we depend on them for business success.	1, 2, 3, 4, 5, 6
Business partners	Shared values are important for sustainable business relationships.	1, 2, 3, 5, 6
Local communities	We are committed to the sustainable development of our city and helping those in need.	1, 2, 3, 4, 6
Green groups and social NGOs	They are key partners for environmental conservation and sustainable development of our community.	1, 2, 3, 4, 6
Education sector	We support green education, particularly for young people.	1, 2, 3, 4, 5, 6
Engineering sector and professional institutions	They are our key industry partners.	1, 2, 4, 6
Media	They are important partners for communication with the public	1, 6
Authorities and legislators	They have regulatory roles over our utility business	1, 2, 4, 6

1

Meetings / conversations / enquiries / interviews

2

Visits / talks / seminars / workshops / exhibitions

3

Advisory services / community programmes / volunteering services / social & recreational activities / sponsorships & scholarships / award schemes

4

Consultation panels / focus groups / liaison teams

5

Surveys / suggestion schemes

6

Mobile apps / intranet / website / social media / news & publications



Responding to our Stakeholders

Stakeholders' suggestions in 2023

- Explore the feasibility of switching to zero-carbon energy solutions such as wind power, nuclear energy and hydrogen fuel
- Disclose action plans on reducing Scope 1 GHG emissions and supporting the Government in achieving the 2050 carbon neutrality target

- Enhance the climate resilience and adaptation of assets to ensure uninterrupted power supply in the face of climate crisis
- Disclose climate resilience and adaptation strategies and approaches

- Raise the sense of crisis and strengthen preparedness for contingency events
- Maintain coal-fired electricity generation as contingency since most renewable power production methods are weather-dependent
- Introduce new backup power solutions



- Promote environmental awareness and low-carbon lifestyles among younger generations
- Partner with NGOs to organise community activities

Our responses

HKEI is committed to the pursuit of net zero before 2050. We have established a Decarbonisation Study Group to explore potential applications of new technologies in renewables, hydrogen fuel, battery storage and importing zero-carbon energy such as nuclear power. Meanwhile, we are switching from coal to natural gas, which is a cleaner, reliable and cost-effective way to progressively transition towards net-zero electricity generation. More details can be found in this report.

HKEI recognises the critical importance of addressing climate-related risks, including physical risks associated with climate change. We are actively managing these risks through a combination of adaptation and resilience strategies. Our [Climate-related Disclosures Report](#) provides details on how we manage climate-related risks and opportunities.

HKEI puts great emphasis on contingency preparedness. We have a Crisis Management Plan in place, supplemented by contingency plans for individual business units, to ensure business continuity and effective response to emergencies. We conduct regular drills to strengthen the efficacy of our crisis plans and procedures.

We target to cease using coal for daily electricity generation by 2035. Throughout the energy transition, we will maintain sufficient and reliable generating capacity to cater for contingencies. We are also looking for innovative ways to provide customers with reliable and emission-free energy during emergencies. In 2023, we introduced a green mobile emergency electricity supply system comprising an energy storage truck and a power changeover truck. This can provide a clean backup power source for major events as well as emergencies.

HKEI strives to create and sustain positive and long-lasting social impacts 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, such as the Happy Green Campaign and "CAREnJOY for the Elderly" programme.





2023 Highlights of Engagement Activities



Stakeholder groups

Activities

> Customers

- Various initiatives and promotion activities under our Smart Power Services to encourage and support our customers to go green
- Exchanging views with Customer Liaison Group and updating group members on company development through meeting and company visit
- After-service surveys to gauge customer satisfaction

> Shareholders and investors

- Annual General Meeting with shareholders
- Regular dialogue with investors to address their concerns and expectations
- Participation in various local and global benchmarking initiatives to allow investors to learn more about our sustainability performance

> Employees and business partners

- Joint Consultation meetings and focus group meetings to exchange views with our employees
- “Hear Your Voice” communication channel to connect our young talent with senior executives and foster open dialogue
- Various wellness initiatives and promotion campaigns to help our employees and contractors stay safe and healthy
- Suppliers Engagement Seminar to share best practices in sustainable procurement and other ESG areas
- Visit to a supplier’s coal mine for on-site assessment of its operations, quality control and sustainability practices



> Local communities, green groups, social NGOs and education sector

- Various educational activities under the Happy Green Campaign themed “Be Chill. Be Carbon Neutral” to enhance environmental awareness among the public, particularly young people
- Eco-heritage tours under the Green Hong Kong Green programme to foster public appreciation of Hong Kong’s eco-heritage resources
- Home visits, electrical safety talks and outings under the “CAREnJOY for the Elderly” programme to support the elders-in-need
- Helping local retirees pursue lifelong learning and continue to contribute to the community through the “University of 3rd Age” network
- Participation in career fairs to foster awareness about career prospects with HK Electric among university students

Stakeholder groups	Activities
<p>➤ Engineering sector and professional institutions</p>	<ul style="list-style-type: none"> • Participation in knowledge and experience sharing activities with the State Grid Energy Research Institute Co. Ltd. and other professional bodies • Collaboration in the “Belt and Road Advanced Professional Development Programme in Power and Energy” to nurture senior-level talent in the energy industry  <ul style="list-style-type: none"> • Participation in meetings and forum of the Joint Utilities Safety and Occupational Health Policy Group to discuss safety issues and benchmark safety practices
<p>➤ Media</p>	<ul style="list-style-type: none"> • Press releases, interviews and social media posts to keep media informed on corporate initiatives 
<p>➤ Authorities and legislators</p>	<ul style="list-style-type: none"> • Meeting with legislators to update them on company development • Working closely with relevant authorities to ensure proper implementation and transparency of the SCA, as well as on the way forward to achieve net zero • Meeting with relevant government departments and other utilities through the Joint Utilities Policy Group to discuss issues of shared concern • Participation in the Government’s emergency drill for power interruption incidents
<p>➤ Various sectors</p>	<ul style="list-style-type: none"> • Seminar entitled “Innovating Beyond Boundaries” to promote our culture of innovation and share views and experiences



Innovation

Innovation is about leveraging technology and new ways of working to achieve better outcomes for our business and stakeholders. This is essential for delivering on our Sustainability Framework and charting a sustainable course for our business in a rapidly changing world. We strive to innovate continuously by supporting our colleagues to explore both incremental improvements and major breakthroughs. We also seek out opportunities for collaboration with independent research institutes, universities and business partners.

Our CEO-led Innovation Steering Committee nurtures ideas and solutions for streamlining work processes, improving performance and enhancing customer experiences using mobile apps, big data and artificial intelligence (AI) among other exciting new areas of technological advancement. It is supported by internal policies and programmes promoting innovation and new technologies in line with our sustainability targets.

Innovating Beyond Boundaries

In 2023, we hosted an “Innovating Beyond Boundaries” conference, bringing together leading minds from the public and private sectors to share insights. The conference highlighted some of HK Electric’s recent successes in technological innovation, such as using AI and remote monitoring to find out high-voltage cables with a relatively high risk of failures.

During the year, we launched our first [Innovation Report](#) to showcase highlights from over 200 focused or cross-disciplinary projects, including transformative technologies and three patented technologies. These include our AI Video Surveillance for Substation Monitoring System, Smart Circuit Breaker Monitoring and Analytic System and other collaborative efforts with NGOs on societal issues.

Innovation Culture

Our culture of innovation is a cornerstone of our corporate strategy and integral to delivering sustainable value. Our approach capitalises on the expertise, capabilities and creativity of our employees as well as external partners. Success in these endeavours is vital for upholding our reputation as a premier utility and bolstering climate resilience, including helping achieve the Government’s carbon neutrality goal.

The Innovation Steering Committee is at the forefront of our innovation initiatives and the TechWatch Team tracks innovation trends and technology developments. We also engage with research institutes, universities and start-ups, both locally and internationally.

We have appointed Innovation Champions to nurture innovation in various parts of our business and to enhance sharing on common challenges and solutions by promoting interaction within cross-disciplinary learning communities. One such community is Inno Hub, an online platform that brings together colleagues with a diversity of roles and perspectives. Since its launch in 2018, Inno Hub has captured over 330 new ideas at various stages of development from ideation and selection to scoping and delivery.





Innovation in Action: 2023 Initiatives



Safety and Efficiency: Drone Inspections

In partnership with the Guangdong Academy of Sciences, we used drones to inspect a 3-km subsea natural gas pipeline running adjacent to the Dapeng LNG terminal in Shenzhen. Drone inspections are safer and more efficient than traditional methods. They are already integral to our maintenance work at LPS.



Maintenance with 3D Printing Technology

We implemented a pilot project using 3D printing technology to produce spare parts from Nylon PA (Polyamide) 12 material for the Submerged Scraper Conveyor speed sensor couplers of Units L6 and L7 at LPS.



Enterprise Data Platform

In 2023, we reached an important milestone in our journey to enhance our data-driven decision-making capabilities with the launch of a new data platform. This platform is designed to inspire the gaining of operational and business insights from various sources, including operational data from different IoT systems and our Advanced Metering Infrastructure System. Along with our OSISoft PI platform, which provides sophisticated analytics tools and timely alerts for our Generation business unit, we have significantly improved our ability to make informed decisions based on data.



Green Mobile Emergency Power Supply

Our pioneering green mobile electricity supply system delivers reliable and emissions-free power during emergencies and major events. It consists of a battery energy storage truck and a power changeover truck with a static transfer switch and combines power changeover with energy storage to achieve unlimited operation time. It has the potential to save 1,800 tonnes of carbon dioxide that would otherwise be emitted by diesel generators over 10 years. This is the equivalent to the carbon dioxide intake of approximately 8,000 trees.



5G-Enhanced Tunnel Safety

We collaborated with a local telecommunications operator to create an innovative automatic inspection system using a hybrid 5G and Wi-Fi network inside the cable tunnel from Cyberport to Wah Fu. This forward-thinking project has received recognition and support from the Office of the Communications Authority (OFCA) Subsidy Scheme for Encouraging Early Deployment of 5G.



Enhancing Network Reliability: Low Voltage (LV) Fault Indicator

We developed an LV Fault Indicator to improve the operational efficiency of our LV network by precisely identifying the location of faulty LV cable sections using a wireless LoRaWAN communication system. We installed 92 units of this device on Hong Kong Island and Lamma Island as a trial of its performance.

Building on success of the trial, we have developed a second-generation model with additional capabilities to protect transformers from power surges and overloads by monitoring current and voltage of service cut-outs. We are now manufacturing the second-generation models, with plans to deploy around 300 units in Q3 2024. We have also filed a patent for this innovative technology.



Green Mobile Emergency Power System



Running a
Sustainable Business

Sharing our Planet

Serving
Hong Kong

Working
Divider Partners

Cultivating a

Greener World







Sharing Our Planet

Overview

The power sector has a key role to play in driving decarbonisation on the pathway towards carbon neutrality. We wholeheartedly support the Government's climate and environmental policies, including its carbon reduction targets. We prioritise reducing emissions to help combat climate change and improve local air quality, while ensuring our operations fully comply with relevant environmental laws and regulations.

Guided by our Environmental Policy, we are managing our direct and indirect impacts on climate change, local air quality, resource efficiency, waste management and biodiversity. Recently, we have reviewed and revised our Environmental Policy to further strengthen our management approaches to combatting climate change and environmental conservation.

HK Electric's Environment Committee oversees full integration of environmental considerations into all aspects of business planning and operations. Environmental risks, including climate-related risks, have been fully incorporated into our Enterprise Risk Management Framework. We work systematically to prevent or mitigate adverse environmental impacts through assessments and appropriate mitigation measures, including regular monitoring and audits.

We implement Environmental Management Systems conforming to ISO 14001 covering 100% of our operations in power generation, transmission and distribution, and power infrastructure development. Implementation of these systems is monitored through regular third-party surveillance audits. At LPS, there is also an Energy Management System certified to ISO 50001. During 2023, we formulated 62 management plans to improve our environmental and energy performance with reference to measurable targets.

We actively incorporate circular economy principles into our operations by promoting resource efficiency, waste management and sustainable use of materials. We collaborate with suppliers, contractors and other business partners to promote environmental stewardship throughout our value chain and work closely with the Government and NGOs on environmental education campaigns and service, and funding schemes.





Climate Action and Clean Air

Management Approach

HK Electric supports the Government to achieve its goals for decarbonisation of Hong Kong, including net-zero electricity generation and carbon neutrality by 2050. We are committed to the pursuit of net zero and have set an interim science-based carbon reduction target in line with the Paris Agreement. We also help achieve Hong Kong’s air quality objectives by reducing other air emissions from power generation.

Our management approach to climate action and clean air is documented in our Environmental Policy, which specifies phasing out coal-fired power generation, increasing gas-fired generation, promoting RE, exploring zero-carbon energy solutions and facilitating community decarbonisation efforts.

HK Electric’s strategies on addressing climate-related impacts can be found in the company’s annual response to CDP’s Climate Change questionnaire. Our GHG inventory



takes full account of Scope 1, 2 and 3 emissions in line with ISO 14064. We are constantly monitoring and responding to physical and transition risks posed by climate change as part of our approach to building climate resilience and ensuring supply reliability. For more information, please refer to our [Climate-related Disclosures Report](#).



Partnerships for Carbon Neutrality

HK Electric collaborates with strategic partners to drive collective action towards climate resilience and carbon neutrality.

Initiatives

- Carbon Neutrality Partnership
- Energy Saving and 4T Charters
- Carbon Reduction Charter
- Net-zero Carbon Charter
- Advancing Net Zero Programme
- Sustainable Construction Charter
- Carbon Neutrality & Sustainable Development Goals Charter
- Asian Corporate Coalition for Climate Change Resilience

Initiator

- The Government of the HKSAR
- Business Environment Council
- Hong Kong Green Building Council
- Construction Industry Council
- Hong Kong Inheritance Foundation
- World Green Organisation



Decarbonising Power Generation

Switching from coal to natural gas is a clean, reliable and cost-effective way to help reduce GHG emissions from power generation as a transitional measure towards carbon neutrality. Gas-fired power accounted for about 56% of HK Electric's total power output in 2023 and is expected to increase further to around 70% in 2024.

Under the 2019-2023 Development Plan, we commissioned three new gas-fired units, including L10 in 2020, L11 in 2022 and L12 in early 2024. On the other hand, we have been phasing out ageing coal-fired units since 2017. Three units, L1, L2 and L3, have already been decommissioned by 2022 and two more units, L4 and L5, are planned to be decommissioned by the first half of 2024. To help ensure the commercial and operational viability of coal-to-gas transition, we commissioned an offshore LNG terminal using Floating Storage and Regasification Unit (FSRU) technology together with CLP Power in July 2023. During the year, we also installed additional solar panels at LPS and other company facilities, increasing the installed capacity of solar power generation by 1.2 MW.

Under the new 2024-2028 Development Plan, we will invest HK\$10.6 billion in power generation projects, including a gas-fired unit, L13, to replace another ageing coal-fired unit, L6, to maintain sufficient generation capacity and at the same time reduce carbon and other emissions. L13 is expected to commence operation in 2029. We will build three oil-fired open-cycle generating units capable of fast start-up to replace four old units in order to cater for contingencies. We will also extend the service life of two final remaining coal-fired units to optimise capital expenditure.



To help achieve Hong Kong's decarbonisation objectives, we plan to cease using coal for daily electricity generation by 2035. In support of the Government's plan, we are working together with strategic partners to study the feasibility of importing zero-carbon energy while ensuring the safety of our power grid and network stability. In December 2023, we entered into an agreement with the State Grid Corporation of China to explore cooperation opportunities in various areas, including optimisation of power-grid operation and planning for green development.

During the year, HK Electric established a new Decarbonisation Study Group chaired by the Managing Director to formulate action plans for achieving carbon neutrality focused on potential opportunities from technological development in renewables, hydrogen fuel, battery energy storage systems and importing zero-carbon energy such as nuclear power. We are particularly interested in studying the potential of repurposing gas-fired units to run on hydrogen fuel.



Lamma Power Station L12 Synchronisation Ceremony





Increasing Gas-fired Generation



Managing GHG Emissions Responsibly

HK Electric is committed to managing GHG emissions responsibly by maintaining a GHG emissions inventory and implementing a GHG reduction programme. Our annual GHG emissions inventory is compiled and independently verified in accordance with ISO 14064.

Our Scope 1 GHG emissions are mainly from power generation at LPS. Since we operate a vertically integrated utility, all electricity consumed or lost within our operations has been generated by ourselves. Consequently, Scope 2 GHG emissions are already covered in Scope 1 and to avoid double counting these are reported as "zero".

Compilation of our Scope 3 GHG emissions inventory is based on the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. In 2023, our Scope 3 GHG emissions accounted for ~14% of our total carbon footprint. These were mainly associated with fuel-related activities (Scope 3, Category 3) and capital goods (Scope 3, Category 2). Please refer to [Key Statistics](#) for more information.

On the pathway to achieving our target of net zero before 2050, we have set an interim science-based target to reduce Scope 1 GHG emissions by 68.4% per kWh of electricity generated by 2035 as compared to that in 2019. This mid-term carbon intensity target aligns with the Paris Agreement and was validated and approved by the Science Based Targets initiative (SBTi) in 2022. Please refer to our [Climate-related Disclosures Report](#) for more information.

2023 GHG Emissions



Sulphur hexafluoride (SF₆) is an insulating gas commonly used to manage high-voltage equipment safely and reliably. Since it is also a potent GHG, we have robust systems to manage its use and minimise leakage in transmission and distribution apparatus against established targets. In the short term, we are focused on collecting and reusing SF₆ from retired equipment wherever possible and properly treating SF₆ that is not suitable for reuse. In the longer term, we are exploring ways to reduce consumption of SF₆ by substituting it with alternatives having zero global warming potential, such as adopting dry air-insulated switchgears and ester oil-insulated transformers. We are now evaluating these options for trial installation, which is expected to be completed in 2025.

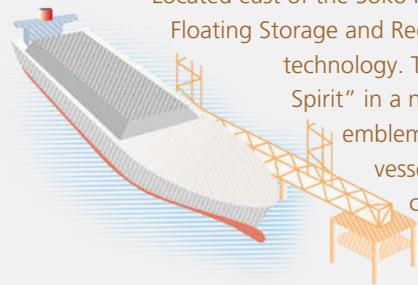




Ushering in a New Era: Hong Kong's First LNG Terminal

HK Electric and CLP Power inaugurated the Hong Kong Offshore LNG Terminal in July 2023, marking a significant step forward for enhancing the sustainability and diversification of Hong Kong's fuel supply. By facilitating access to international LNG markets, the terminal empowers both power providers to enhance supply reliability and negotiate more competitive prices, thereby benefiting consumers and contributing to the economic and environmental health of Hong Kong.

Located east of the Soko Islands, the terminal utilises Floating Storage and Regasification Unit (FSRU) technology. The FSRU vessel, named "Bauhinia Spirit" in a nod to Hong Kong's regional emblem and flag, is the world's largest vessel of its kind with a storage capacity of 263,000 m³.



Hong Kong Offshore LNG Terminal

Over a three-year construction period, engineering teams from both power companies worked collaboratively with expertise from over 10 countries using modular construction methods to overcome various challenges posed by the global COVID-19 pandemic and extreme weather events. Approximately 150 HK Electric colleagues participated in the project, including a team of engineers stationed on the construction vessel to monitor work progress and facilitate final commissioning.

"Participating in such a special project is a valuable experience for us. It has not only broadened our perspectives but has also provided us an opportunity to learn from engineers from different countries with diverse backgrounds. The insights we have gained through this project will enable us to face challenges confidently in the future."

HK Electric Project Team members, Dorothy and Percy

Promoting RE, EVs and EE&C

Widespread adoption of RE, EE&C and EVs can play an important role in reducing Hong Kong's emissions. To support local development of RE, HK Electric offers a Feed-in Tariff (FIT) Scheme and Renewable Energy Certificates (RECs) as part of the company's Smart Power Services package for customers.

In 2023, uptake of the FIT Scheme continued to increase with successful connection of 160 new RE systems. Customers also continued to take advantage of RECs for offsetting their own GHG emissions. 100% of the green electricity produced within HK Electric's power system has been fully subscribed.

We own and operate a 0.8-MW wind turbine known as Lamma Winds on Lamma Island. In 2023, we expanded the solar power system at LPS to 1.4 MW of installed capacity and installed additional solar panels on the rooftops of our other company premises, raising the total installed capacity of renewable power generation to 3.2 MW. During the year, our own RE systems generated around 2 GWh of green electricity and together with the RE produced under the FIT Scheme, more than 10 GWh of green electricity was supplied through our power system.

HK Electric is dedicated to pursuing RE solutions that are feasible and effective for supporting Hong Kong's sustainable development. After in-depth discussions with the Government, we have decided to put on hold development



of an offshore wind farm. This decision has been taken with careful consideration of cost implications for our customers.

Support for widespread adoption of EVs is another important way in which HK Electric contributes to reducing GHG emissions and improving local air quality. As at the end of 2023, our own vehicle fleet comprised 179 EVs, representing 54% of all vehicles. Additionally, more than half of the parking spaces located on our company premises are fitted with EV chargers. We operate 12 EV charging stations on Hong Kong Island, which hosted over 47,000 charging operations free of charge for EV drivers during the year. Through the Smart Power Services, we also provide complimentary support to customers to implement EV charging solutions on their premises.

We conduct regular carbon audits in our key office buildings to evaluate opportunities for reducing our own carbon footprint. Our Smart Power Services also offer education, funding and service initiatives to promote EE&C, electrification, low-carbon lifestyles as well as providing care for the community. Please refer to the chapter on [Serving Hong Kong](#) for more information.



Minimising Air Emissions from Power Generation

In 2023, LPS once again complied fully with the emission allowances specified by the Government. We operate state-of-the-art air pollution combatting technologies to reduce emissions of sulphur dioxide (SO₂), nitrogen oxides (NO_x) and respirable suspended particulates (RSP). These include a Selective Catalytic Reduction plant for controlling NO_x emissions from gas-fired units and low NO_x combustion systems, flue gas desulphurisation plants and highly efficient electrostatic precipitators in our coal-fired units.

Driven by these technologies as well as our switch to natural gas and consumption of low-sulphur coal, we recorded a reduction of 17 - 40% in the emissions of SO₂, NO_x and RSP in 2023 as compared to that in 2022. In the coming years up to 2028, we target to control the annual emissions of SO₂, NO_x and RSP to not higher than 0.161, 0.299 and 0.012 tonnes per GWh of electricity sold (T/GWh) respectively.

- RSP monitoring at the boundary of LPS



We monitor the impacts of emissions from LPS on ambient air quality at six monitoring stations located at the south of Hong Kong Island and on Cheung Chau. We submit the data to the Government and published them on our website. In addition, we conduct RSP monitoring at the boundary of LPS.

We also monitor emissions at source in LPS through our Continuous Emissions Monitoring Systems and stack sampling exercises in compliance with license requirements and established monitoring procedures.



Responsible Environmental Management

Management Approach

Progress towards a circular and low-carbon economy, characterised by sustainable management of natural resources and protection of biodiversity, is essential for achieving climate-related goals and sustainable development more broadly. Our commitment, as stipulated in our Environmental Policy, is to conserve resources across our operations and to inspire our stakeholders to do the same.

We integrate low-carbon operations and energy-saving practices to enhance our operational efficiency. We also minimise consumption of raw materials and waste production by practising the 4R principles of Reduce, Reuse,

Recover and Recycle. We have reduction targets for electricity, water and paper consumption, as well as waste generation. We also embrace green-building design by adopting the BEAM Plus New Buildings standard for new developments.

In response to escalating risks associated with biodiversity loss, we seek to mitigate the impact of our daily operations and new developments on local ecosystems by conducting thorough assessments and implementing robust monitoring systems.



Partnerships to Protect the Environment

In 2023, we continued to promote responsible environmental management through various partnerships.

Energy Saving



- Energy Saving and 4T Charters;
- Energywi\$e Certificate;
- Charter on External Lighting

Waste Management



- Sustainable Procurement Charter;
- Wastewi\$e Certificate;
- Food Wise Charter;
- FoodWaste Lean & Green Label Scheme;
- Green Event Pledge

Water Conservation



- Let's Save 10L Water Campaign

Biodiversity Conservation



- Greening Partner Charter



Energy Saving

Energy Saving Measures

Buildings account for a significant portion of Hong Kong’s total electricity consumption, so optimising energy use in buildings is important for sustainable development of our city. HK Electric sets a good example by conducting regular energy audits of the company’s main buildings, installing smart energy meters and utilising data to fine-tune energy saving plans.

In 2023, energy use in our key office buildings reduced by around 3% as compared to that in 2022. We have consistently improved energy efficiency through retrofitting and retro-commissioning, such as replacing and upgrading ageing chillers and air-conditioning plants, optimising the

temperature of chilled-water supply and switching to LED lights with motion sensors. We also utilise AI analytics to enhance the operations of chiller plants.

In the past few years, we have implemented several innovative approaches to reduce auxiliary power consumption in our coal-fired units such as devising and adding new energy saving logic to optimise the operation of high power-consumption equipment. Following successful trials, auxiliary power consumption at LPS reduced by about 10% in 2023 as compared to the average over the previous three years.

RCx is Transforming our Portfolio

Retro-commissioning (RCx) is a powerful tool for improving energy efficiency in existing facilities. Following on the success of our award-winning RCx initiative at Electric Tower in 2020, we have established a dedicated Task Force to evaluate the potential of further investment in RCx across our portfolio of properties.

We are seeing significant energy efficiency improvements in the Generation Maintenance Building at LPS as the result of



an RCx project that was initiated in 2021 and completed in 2023. By strengthening control over air-conditioning and hot-water-supply systems, we have achieved a 20% reduction in electricity consumption as compared to that in 2021.

Further RCx projects are underway at some other buildings of the company, including Hongkong Electric Centre.



- Implementing RCx for facilities at LPS



Waste Management

Waste Management

In accordance with our comprehensive waste management approach, we prioritise waste prevention, reduction, reuse and recycling. We dispose of waste when other options have been exhausted in strict compliance with local regulations. We also monitor waste generation on a monthly basis for evaluation against established targets and formulation of follow-up actions.

Hazardous waste streams, such as waste oil, are handled by licensed contractors under a trip-ticket system. We seek out opportunities to reuse and recycle waste oil within our operations. In 2023, we collected and reused around 3,600 litres of retired oil at LPS to lubricate auxiliary equipment and coal unloading machinery. We also work with a licensed contractor to re-fine and transform spent mineral, cable and lubrication oils into environmentally friendly lubricants using Vibratory Membrane Advanced Treatment (VMAT) technology. In 2023, approximately 71,000 litres of our waste oil was recycled by this method.

Ash and gypsum are two major types of non-hazardous by-products produced from coal-fired power generation. We work with qualified third parties to recycle these materials as inputs to production for other industrial purposes. As we continue to progress with our plans to switch from coal-fired to gas-fired power, we expect that ash and gypsum production will reduce progressively.



● Waste oil recycling using VMAT technology

During the construction phase of new gas-fired units at LPS, we have made special arrangements to avoid, recover, reuse, recycle, store, collect, treat and dispose of various waste streams in accordance with Waste Management Plans approved by the Government's Environmental Protection Department. In 2023, we generated around 39 kT of construction waste from our major construction projects, of which more than 93% was either reused or recycled.



● Clean Plate Challenge to promote minimising food waste

HK Electric supports community-wide initiatives to combat single-use plastic and food waste in Hong Kong. Disposable tableware and plastic straws are banned from our staff canteens and we do not stock beverages in plastic bottles in our on-site vending machines. As a signatory of the Food Wise Charter, we reduce food waste in our canteens using meal ordering and meal planning systems. We also separate out food from general waste at designated collection counters and transform our food waste into fertiliser using on-site decomposers.

We collect and recycle various types of waste from our office buildings, including paper, metal, plastics, used batteries, compact fluorescent lamps and printer cartridges. We purchase recycled paper and reduce paper consumption by digitalising our work processes as much as possible.

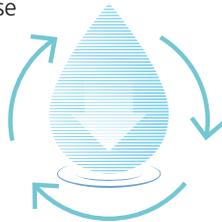


Water Conservation

Water Resources

We acknowledge the risks posed by water scarcity, especially in the context of changing climate. Using tools and methodologies provided by the World Resource Institute’s water risk framework, we have assessed that Hong Kong may experience increasing water stress. We therefore acknowledge exposure of our business to baseline water stress levels ranging from low to medium.

Our Environmental Policy outlines practical measures for reducing water consumption, reusing or recycling wastewater and minimising the impact of effluents discharged into the local environment. We disclose our water-resource management practices and performance comprehensively in our annual response to the CDP water security survey. Participation in this survey helps us review our performance. In 2023, we conducted a Water Resources Management Study to identify opportunities for further improvement.



At LPS, we utilise seawater for cooling of power generation units. This water is discharged back into the sea at a

slightly raised temperature as compared to that when it was withdrawn. We also consume town water from local municipal water supplies for daily operations.

To minimise our burden on local freshwater supplies, we collect and reuse wastewater in many applications. For example, at LPS, we collect rainwater and plant processing water for spraying down the coal yard, conditioning of ash piles on barges and producing limestone slurry for use in our flue gas desulphurisation plants. In 2023, more than 109,000 m³ of wastewater was collected and reused. We also utilise smart water meters to optimise water efficiency. As the coal-to-gas transition progresses, water consumed as demineralised water for generating units, and in flue gas desulphurisation plants has significantly reduced.

During the year, we retrofitted a Brine Recovery Reverse Osmosis system to recover wastewater from one of our demineralisation plants. In addition to recycling water from washing of caustic drums in our wastewater treatment plant, we have dedicated on-site storage and treatment facilities for recycling wastewater during construction of our new gas-fired units.



We treat our wastewater in accordance with local regulations to remove oil, grease, suspended solids and heavy metals, and we disinfect our treated effluent discharge from the on-site sewage treatment plant using ultraviolet technology systems. We also monitor discharge of effluents in accordance with local licensing requirements. In 2023, 100% of the effluent discharged from LPS satisfied those requirements.

● Collection pits for rainwater and reusable wastewater at LPS



Biodiversity Conservation

Biodiversity Conservation

Our commitment to protecting and promoting biodiversity, as outlined in the Environmental Policy, reflects our life-cycle approach to land and habitat stewardship. We avoid operations in areas with high biodiversity value and proactively conserve local biodiversity by enhancing awareness among employees and contractors and tree-planting. We follow best practices when working in proximity to ecologically and culturally sensitive areas and ensure strict compliance with relevant laws and regulations.

We conduct environmental impact assessments for new developments such as the offshore LNG terminal and dredging of LPS Navigation Channel, as well as decommissioning activities such as removal of overhead lines from retired sections of our electricity network. These assessments evaluate potential impacts, including noise and ecological impacts and those on air and water quality, alongside broader socio-economic and health considerations. We rigorously implement mitigation measures recommended by these assessments, including environmental monitoring

and audit programmes, such as ecological field surveys to ensure no insurmountable impacts on marine and terrestrial ecological resources.

The Marine Conservation Enhancement Fund and Fisheries Enhancement Fund were established within the scope of the Offshore LNG Terminal project to enhance the marine environment in western and southern Hong Kong waters. In 2023, \$32 million was committed to 24 projects supporting improvement of ecosystem and sustainable development of local fishing industries.

For many decades, HK Electric has been especially committed to conserving and restoring the ecology of Lamma Island. We have robust systems in place to manage air, noise, water and light pollution while also nurturing native flora and fauna. Our innovative fish deterrent system at LPS emits low-frequency acoustics to deter marine life from entering seawater inlet culverts. As part of our ongoing landscaping activities, we planted 72 thyme trees at LPS in 2023.

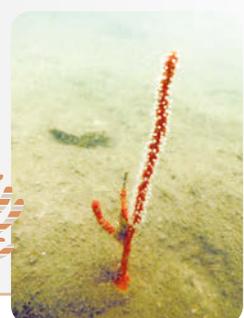
Signs of Biodiversity Recovery at LMX

In August 2023, we conducted a survey to examine the state of coral health and biodiversity along the seawalls at the site of our Lamma Extension (LMX) reclamation project. The survey revealed encouraging signs of a thriving ecosystem, including 11 hard coral and three octocoral species. Notably, we found two additional hard coral species that were not present in our baseline survey. We also discovered slow-growing Porites coral colonies.



It is encouraging that all coral colonies within the area of the survey are healthy, showing no signs of bleaching or partial mortality. Several colonies are even beginning to reach

moderate size, underscoring the resilience of Hong Kong's marine ecosystem and providing reassurance about the effectiveness of our work to facilitate coral recolonisation and recovery.





Land Rehabilitation on Hong Kong's South Side



After more than 40 years of service, the Parker Line comprising a 4.7-km stretch of 132-kV overhead transmission line running from Deep Water Bay to Tai Tam Road has been decommissioned. It is time to restore this beautiful and ecologically sensitive part of Hong Kong Island's south side to its natural glory.

In accordance with the terms of the Environmental Permit and other regulations, HK Electric is working closely with the Government's Environmental Protection Department to implement the approved Ecological Management Plan for land rehabilitation. Our primary objective is to preserve and restore the integrity of the natural environment and we have set aside sufficient funds to cover all related expenditures. Dismantling work of the overhead cable and 24 pylons is taking place in stages, using existing access roads and helicopters to deliver equipment and remove materials.

Based on the findings of a comprehensive survey carried out in June 2022, we are implementing a range of measures to mitigate potentially harmful impacts on flora and amphibian life of conservation importance as well as active bird

nests. These include minimising the work area, avoiding work in or near sensitive areas at certain times of year, erecting protective netting and temporary fencing, and educating workers and contractors about the importance of conservation.

Throughout the implementation phase of this project, monthly audits are conducted to closely monitor the efficacy of these measures. The audit findings are documented and publicly accessible.





Education and Awareness

Management Approach

HK Electric takes a collaborative approach to environmental stewardship. We engage with various stakeholders including the Government, green groups, NGOs and social enterprises to pursue common objectives. We guide our customers and the public towards energy conservation by promoting community awareness about EE&C and RE, as well as advocating for low-carbon lifestyles through various educational initiatives.



Green Energy Dreams Come True 2022-23

Happy Green Campaign

2023 marked the 20th anniversary of our flagship programme for environmental education, the Happy Green Campaign. Celebrations kicked off in April at the Happy Green Fair held in Central Market, which drew a crowd of around 3,000 participants over three days. Themed “Be Chill. Be Carbon Neutral”, the event featured a mix of art, technology and educational activities, including upcycling exhibitions, workshops, performances and theme talks, to demonstrate how decarbonisation can be achieved in a cool way in our daily lives.

Following the cessation of social distancing measures that were in place during the COVID-19 pandemic, the Happy Green Schools programme has bounced back into action and expanded into kindergartens on top of primary and secondary schools. In 2023, the number of participating schools rose to as 650 compared to 530 in 2022.

In recognition of the success of the  [“Decarbonisation ABC”](#) activity book produced under the Happy Green Campaign, as well as related activities and workshops, HK Electric received a Gold award for Corporate Sustainability from the Hong Kong Public Relations Professionals’ Association.

During the year, we delivered “Decarbonisation ABC” story-telling workshops in 22 kindergartens and talks in 7 primary schools. Over 80  [Happy Green Ambassadors](#) participated in skills training to assist their secondary schools in supporting carbon neutrality. Our interactive drama shows continued to be very popular, reaching over 17,000 students. We also increased the range of Other Learning Experience (OLE) activities on offer, such as a new Virtual Reality (VR) game design workshop to promote green messages in a fun and interactive way.

The annual Green Energy Dreams Come True Competition showcased once again the innovative spirit of local students as they presented their projects to our panel of judges. Students from Shau Kei Wan Government Secondary School earned the top prize with their creative board game about RE. A collaborative team comprising representatives from three local universities secured top place in the Tertiary category with a smart solution for monitoring household electricity.

We are continuously looking for ways to expand our educational outreach. In 2023, we hosted a luncheon for school principals and teachers, briefed the media about our school programmes, collaborated with different government departments, green groups and social enterprises and promoted our campaign via Green TV on our mini-site and Facebook page.



Happy Green Fair



Green Hong Kong Green

For over 18 years, HK Electric has partnered with the Conservancy Association to nourish public appreciation of our city’s rich ecology and heritage through our award-winning Green Hong Kong Green (GHKG) project.

In the aftermath of the pandemic, GHKG resumed in-person activities in June 2023. The first physical public tour took place on the Lamma Night Safari route, attracting 27 participants to explore the island’s nocturnal wildlife under expert guidance from our guest speaker representing the Hong Kong Entomological Society, Mr. Chan To, and one of our GHKG eco-leaders.

During the year, physical tours took place for the first time on our Eastern Sparkle route that was launched virtually during the pandemic. This route explores the history, architecture, culture and ecological resources of island east. Between October and December, 46 participants attended

three tours, including a group of student ambassadors from the Eastern District. Each tour focused on a different theme, including the history and architecture of State Theatre, local traditional stores and Fujian food culture. In preparation for this exciting development, we ran a special refresher course for around 20 GHKG eco-leaders to prepare them for guiding this route.

GHKG continues to embrace the digital shift. Our GHKG App, which has been downloaded over 52,000 times, empowers enthusiasts to discover Hong Kong’s eco-heritage at their leisure. In 2023, six online tours were delivered via Zoom and YouTube featuring guest insights and interactive gaming. We also reached out to schools and NGOs through 21 tailor-made online tours. Together with four physical tours that resumed in the latter half of the year, we recorded over 4,200 participants in total.

Environmental Campaigns

We foster a culture of environmental responsibility among our workforce by encouraging employees to participate in green initiatives. In 2023, our colleagues supported local environmental organisations and NGOs in flora-conservation activities and countryside and coastal clean-ups.

During the year, we marked the United Nations’ World Environment Day with a month-long “Beat Plastic Pollution” campaign and “Clean Plate Challenge” aimed at raising awareness and spurring our colleagues into action on reducing plastic pollution and food waste.



GHKG Eco Route - Eastern Sparkle



• The popular Lamma Night Safari eco-tour







Running a
Sustainable Business

Sharing
our Planet

Serving Hong Kong

Working
with Partners

Powering up our

Community





Serving Hong Kong

Overview

HK Electric plays an integral role in making Hong Kong a prosperous, smart and caring city by supplying power for buildings, public transportation and electronic communications among other essential services.

Throughout our operations, we have implemented Quality Management, Asset Management and Information Security Management Systems certified to ISO 9001, ISO 55001 and ISO 27001 respectively. These ensure the reliability and security of our assets and systems in line with our corporate policies on Quality, Customer Services, Complaints Handling, Information Security and Corporate Security. We are committed to total customer satisfaction and strive for continual improvement in line with specific and measurable targets, including our Customer Service Standards.

Caring is one of our Core Values. In accordance with our obligations under the SCA, we are proud to help our customers and the community achieve decarbonisation through a range of funding and service schemes known collectively as Smart Power Services. Our community investment strategy focuses on long-lasting and positive social impacts through partnerships. We leverage our expertise and resources to create social capital through a range of programmes in environmental education and care for the elderly.





World-class Power Supply

Management Approach

HK Electric operates a vertically integrated business covering electricity generation, transmission, distribution and supply, as well as customer service. We are regulated by the Government under the SCA that is valid until 31 December 2033. This mechanism is a proven and effective means of achieving the Government’s energy policy objectives of safe, reliable and environmentally responsible electricity supply at a reasonable cost.

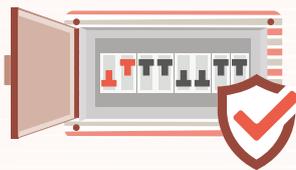
In 2023, we achieved a yearly supply reliability rating exceeding 99.999% for the 27th consecutive year despite an unexpected power interruption on 19 April affecting around 44,000 customers. In the face of volatility in global energy market, our outstanding record of world-class power supply supports Hong Kong’s sustainable development. As we continue to make progress towards decarbonisation by increasing the share of natural gas in our fuel mix, we will maintain tariffs at an affordable level and provide targeted relief for customers experiencing economic hardship.



In accordance with our Information Security Policy and Corporate Security Policy, we have well-established precautionary measures and contingency plans in place to ensure supply reliability in the event of a large-scale interruption to our operations. We safeguard our facilities, technologies, and information assets from physical and cybersecurity threats with comprehensive management systems certified to ISO 9001, ISO 55001 and ISO 27001. There were no incidents of non-compliance with cybersecurity standards or regulations in 2023.

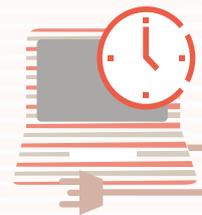


Power Supply Performance in 2023



>99.999%
supply reliability rating for
27 consecutive years

(>99.9999% for four consecutive years if the power interruption incident on 19 April 2023, which is classified as a Major Event Day, is excluded as per international standards)



3.4 minutes
unplanned customer
minutes lost

(<0.5 minute for four consecutive years and <1.0 minute for 15 consecutive years if the power interruption incident on 19 April 2023, which is classified as a Major Event Day, is excluded as per international standards)



Reliable Power System

We take a proactive approach to ensuring the robustness of our power system through strategic investments. Our team of dedicated and highly trained professionals are fully equipped to resolve service interruptions with minimal inconvenience to customers. We provide assistance and emergency services to customers, as needed.

To ensure that our generation capacity continues to meet the needs of our community we are systematically replacing ageing coal-fired generating units with contemporary gas-fired units. To help maintain generation security during contingencies, we have also started replacement of ageing oil-fired open cycle generating units that are capable of fast start-up. During the year, we commenced commercial operation of a new offshore LNG terminal in partnership with CLP Power to secure an additional reliable and affordable gas supply. For more information about our programmes and investments focused on decarbonising power generation, please refer to the [Sharing our Planet](#) chapter.

We strive to operate one of the most reliable transmission and distribution networks in the world. Our operation teams deploy remote online monitoring and control systems and advanced early detection diagnostic techniques to implement timely repair or replacement of primary and secondary equipment.

We continuously invest in upgrading and expanding our power network to meet new electricity demand and improve the quality of our power supply. In 2023, we commissioned 40 new distribution substations and transformer pillars. As a precautionary measure, a new 11.7-kV, 2,000-kVA Mobile Transformer was under commissioning intended for the provision of backfeed power supply to multiple locations with a single equipment in the event of a large-scale blackout.



We take preventive measures to safeguard the health status of our power network. Beyond the Health Index, we have incorporated new indicators such as “Three-Hypers” (i.e., using tan-delta stability, differential of tan-delta, and tip-up of the tip-up of tan-delta in very-low frequency testing) and Insulation Resistance (IR) Imbalance Degree for evaluating 11-kV power distribution cables. These indicators provide a comprehensive assessment of cable integrity, enabling early detection of potential faults and reduce failure risk.



In 2023, in collaboration with the Centre for Advances in Reliability and Safety (CAiRS) based at the Hong Kong Polytechnic University, we developed a Cable Health Condition Monitoring System using AI. In partnership with a local telecommunications operator, we developed a hybrid 5G plus Wi-Fi based system for inspecting the inside of cable tunnels using robots. This innovative solution reduces safety risks of our workers and won support from the Government’s Subsidy Scheme for Encouraging Early Deployment of 5G. We also continued to enhance the functionality of our LV Fault Indicator.

HK Electric’s 24-hour System Control Centre plays a vital role in ensuring safe, efficient and reliable supply of electricity. We employ sophisticated real-time energy software systems with smart-grid features for controlling and monitoring power generation, transmission and distribution, including our Energy Management System and Distribution Management System.

To ensure operational continuity and emergency preparedness, we conduct changeover drills semi-annually on our back-up systems. These are also subject to regular internal reviews and updates to safeguard cybersecurity in line with relevant international standards. Contingency plans are in place for crisis situations, including natural disasters, security incidents or other unexpected events. We have a restoration plan in place to facilitate smooth and

timely recovery of our power system in the event of major disruption to our services.

In response to emerging climate risks, particularly extreme weather conditions, we have developed specific measures to mitigate impacts on our infrastructure and operations. For more information, please refer to our [Climate-related Disclosures Report](#).



Proactive Risk-based Asset Management

Risk monitoring approach



Condition monitoring and advanced diagnostic techniques for network components

Assets: Typical measures

Switchgears: Advanced online partial discharge detection system

11-kV distribution cables: Very-low-frequency-monitored withstand test

LV network: LV Fault Indicator

Purpose

Early detection of incipient faults to avoid potential component failure

Early detection of water ingress in cable insulation layer to avoid potential cable faults

Improving efficiency of fault identification and trouble shooting



Health Indices register and other risk indicators for network components

Formulation of critical indices and indicators for primary and secondary assets (e.g., switchgears, transformers, relays, and remote terminal units)

Timely refurbishment or replacement to avoid equipment failure

2023 Preventive and Corrective Actions

- ◆ **8** 11-kV cable faults were averted;
- ◆ **27** potentially faulty 11-kV cables were removed;
- ◆ **451** cables were tested;
- ◆ **28** weak cable components were identified for replacement;
- ◆ **22** 11-kV and **38** LV faulty cable joints/bodies were replaced and dissected for identifying failure modes such as partial discharge, water ingress and damage from prior works or termite attack; and
- ◆ **11** aged 11-kV joints on cables with poor health index or risk indicator were replaced and dissected for revealing defects leading to high dissipation loss factor in the cable circuit.

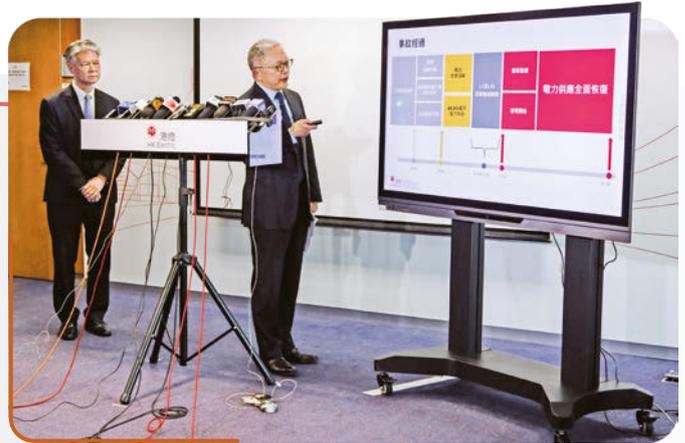


Power Interruption Incident Response

In the early morning of 19 April 2023, we encountered a fault in our power system resulting in temporary service disruption to customers in various parts of Hong Kong Island in the small hours lasting up to 48 minutes. The incident arose due to human errors when an unrecorded spare cable was accidentally energised after switchgear maintenance.

The fault induced voltage fluctuations at LPS, which were quickly stabilised. Two generating units were briefly shut down but were promptly supplemented by other standby units. Robust self-protection mechanisms effectively isolated the fault, demonstrating the resilience of our power system in safeguarding the network and critical infrastructure.

This regrettable incident was HK Electric's first major supply disruption for more than 30 years. Having apologised sincerely for any inconvenience caused, we followed up with a series of precautionary measures to prevent similar reoccurrences. These include systematically completing segregation of spare cable circuits from the grid, updating site labels and Energy Management System circuit diagrams throughout our network and enhancing engineer training.



● Media briefing on the incident

A detailed investigation report was submitted to the Government outlining the sequence of events, contributing factors and follow-up. In addition to those outlined above, we allocated additional resources for mandatory counter-checks in the transmission system and engaged with manufacturers of our generating units to improve the low-voltage ride-through capability of these units. We are also committed to reviewing human resources, equipment and workflows in our Customer Emergency Services Centre.

Physical and Information Security

We have comprehensive management systems in place to protect our facilities and information assets from physical and cybersecurity threats.

Our Physical Security Management System identifies potential threats and implements, monitors and reviews appropriate preventive measures. We enforce security zoning to safeguard the physical security of company property, using a range of measures to control access to our systems and assets, including facial and car-plate recognition, two-factor authentication, video analytics and automatic detection of open access doors.

We regularly assess the fire hazard potential of our transmission and distribution cable systems and perform necessary enhancements. In 2023, we received a consent from the Highways Department to fit fire blankets on all 275-kV and 11-kV cables and communication cables within the Ap Lei Chau Main Bridge cable chamber. This work is expected to be completed in Q3 2024.



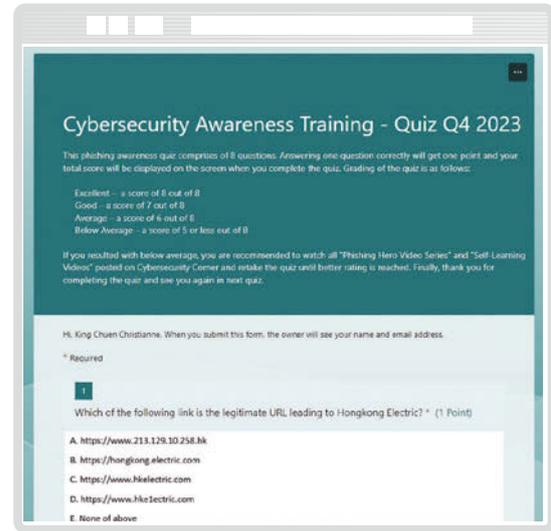
Our robust governance structure lays the foundation for securing the confidentiality, integrity and availability of all critical infrastructure and information assets. Our Information Security Policy shields against security threats, whether internal, external, deliberate or accidental. Our Cybersecurity Management Framework uses a "defence-in-depth" approach overseen by our in-house team of specialists in close coordination with external service providers to address technical, regulatory and managerial aspects of cybersecurity. It integrates multiple layers of security to identify, detect, protect, respond and recover from cybersecurity incidents.



We deploy various operational measures building on seven strategies of defence for industrial control systems from the United States' Department of Homeland Security. To defend our information assets against unauthorised access and malicious attacks, we implement a myriad of security measures such as Next Generation Firewall and Intrusion Prevention System, Advanced Persistent Threat Protection Solutions, Mail Gateway, Secure Web Proxy and Anti-malware Systems. Our System Operations Cybersecurity Incident Response Plan characterises and classifies reportable cybersecurity events. We also implement recovery procedures for critical Information Technology systems in accordance with our Crisis Management Plan.

Frontline employees play an essential role in mitigating cybersecurity risks. Our colleagues stay informed by accessing relevant news, videos and other learning contents in the "Cybersecurity Corner" of our Corporate Intranet Portal. We conduct regular cybersecurity training, including compulsory phishing awareness training for employees

who demonstrate insufficient knowledge about this type of threat during quarterly tests. New employees also receive mandatory training on our cybersecurity policies and procedures with a follow-up quiz.



Ensuring Cybersecurity Resilience

Cybersecurity Assurance Exercises

HK Electric consistently prioritises cybersecurity through rigorous assurance activities on an ongoing basis, encompassing both internal and external audits, testing, management and inspections. We conduct external audits of our Customer Information System, ensuring ongoing vigilance over relevant information security controls and processes and continuous improvement. This oversight aligns with our commitment to meeting the standards set by ISO 27001.

Cybersecurity Incident Responses Drill

In January 2023, HK Electric conducted a cybersecurity incident response exercise in collaboration with the Hong Kong Police Force (HKPF), simulating a phishing email attack leading to unauthorised data extraction. The primary goal was to assess the effectiveness of communication protocols between our IT Division and HKPF, ensuring that our incident response playbook—our predefined strategy for systematic recovery—would be effective in mitigating the impact of a cyber-attack before it could severely disrupt our operations.



Alleviating Economic Hardship

We remain steadfast in our support for customers and the community experiencing economic hardship. We recognise that rising fuel costs associated with cleaner energy impacts our customers. As part of our support for a just transition to a low-carbon economy, we strive to maintain tariffs at an affordable level and provide targeted support for those who are most in need.

In 2023, we allocated \$95 million for various relief measures, including \$55 million for helping disadvantaged households and non-residential customers to save on energy costs and improve electrical safety. In addition to our "Super Saver Discount" programme that incentivises energy conservation, we also introduced a Special Electricity Subsidy with \$40 million funding for residential customers using 300 units of electricity or less per month valued at 9.5 cents per unit. This subsidy benefitted roughly half of our residential customers.

Building on the success of our "Care and Share" programme introduced to support underprivileged families and help



invigorate the local catering industry during the COVID-19 pandemic, we distributed another round of dining coupons in February 2023. Valued at \$200 each, the coupons are redeemable at over 200 participating eateries and were distributed to 50,000 underprivileged households, including residential customers granted with concessionary tariff, disadvantaged households living in Sub-divided Units (SDUs) or transitional housing, "N have-nots households" or households with financial difficulties referred by NGOs or District Council members, and low-consumption residential customers.

Tariff Adjustment for 2024

Following the 2024 Tariff Review, we announced an adjustment to our Average Net Tariff, which was set at 165.5 cents per unit of electricity starting in January 2024. This signifies a 16% decrease as compared to that in January 2023. The general decline in global fuel costs from peak levels has enabled this downward tariff adjustment despite an increase in the Basic Tariff and our ongoing switch from coal to natural gas, which is a more costly fuel.

關懷弱勢社羣
Caring for Community

- 資助採用節能設備
Subsidise the installation of energy efficiency equipment
- 派發現金券
Distribute cash coupons
- 為劏房戶提供電費津貼
Offer electricity subsidies to sub-divided unit households
- 資助社福機構為基層人士舉辦餐飲活動
Sponsor NGOs to organise catering activities for underprivileged

Adjustments from the period of January 2023 to January 2024

Basic Tariff	114.5	➡	119.5 ¢/kWh
Fuel Clause Charge	82.5	➡	46.0 ¢/kWh
Average Net Tariff	197.0 ¢/kWh	➡	165.5 ¢/kWh



We will set aside more than \$55 million in 2024 to provide support to the underprivileged by enhancing relevant initiatives under our Smart Power Services.



Serving our Customers

Management Approach

HK Electric is committed to delivering excellent customer service, characterised by outstanding supply reliability and exceptional customer support. We strive to meet and exceed customers' expectations by continually enhancing our services and engaging with customers in an open and transparent manner in line with our Customer Services Policy and Complaints Handling Policy. As a further layer of assurance, we obtained ISO 9001: Quality Management System certification covering the design and provision of customer services, inspection services and metering.

Our pledged Customer Service Standards specify targets that can be monitored for electricity supply, connections, accounts and meters, customer enquiries, emergency services and customer satisfaction. Related performance metrics are diligently overseen by our Customer Services Steering Committee. Our Stakeholder Satisfaction Steering Committee is dedicated to prompt and efficient resolution of queries and complaints. Customers can access HK Electric information in a timely and efficient manner through various communication channels, including our website and the HK Electric App.



With Power We Serve

We respect and safeguard the privacy of personal data in accordance with our Personal Data Privacy Policy that ensures compliance with the Personal Data (Privacy) Ordinance. Our Privacy Management Programme comprises robust privacy infrastructure supported by ongoing monitoring and review procedures. In 2023, we experienced no incidents of material legal non-compliance concerning product or service information, labelling or marketing. We also received no confirmed complaints regarding breaches of customer privacy or losses of customer data.

Excellent Service

The role of our customer service team is to consistently exceed expectations by ensuring customers feel appreciated and valued. In 2023, we met or surpassed all 18 of our pledged Customer Service Standards and received prestigious customer service awards. In addition to achieving an average customer satisfaction score of 4.7 out of 5 in after-service surveys, we received 2,100 positive commendations.

Guided by our Complaints Handling Policy, we address stakeholder complaints in a prompt and thorough manner

and strive for objectivity in every case. Our Stakeholder Satisfaction Steering Committee diligently tracks complaint cases and trends and emerging issues. In 2023, we received five complaints from our stakeholders. All complaints were managed in accordance with established procedures.

We recognise that customers increasingly expect self-service options. To meet this demand, we offer a suite of online platforms allowing for efficient and convenient handling of account-related enquiries. Service requests can be made online via easy-to-use request forms and customers can access up-to-date information about their applications of supply, transfer and termination, as well as meter readings and autopay via an online portal.



HK Electric App



In 2023, we introduced our new “On the Way” SMS alert for inspections of electrical installation, providing real-time updates to customers about the expected arrival time of our technicians. We optimised our customer service hotline with a new call flow to streamline our processes and support customers to prepare the necessary information before speaking to our Customer Services Executives, including offering immediate selection between account opening and other inquiries.

During the year, we upgraded the HK Electric App to provide more intuitive user experiences, including improving our display of consumption records and simplifying the process for password resetting. To increase customer adoption of the App and help them use it most effectively,

we launched tutorial videos on our corporate website. Besides, smart meter customers can receive notifications on our HK Electric App and use various features in the App for management of energy consumption.

Smart meters are instrumental in assisting our customers with reducing their energy usage. Throughout 2023, we made substantial advancements in deploying Advanced Metering Infrastructure (AMI) across our distribution network. By year end, we had installed more than 360,000 smart meters, serving approximately 60% of our customer base. Additionally, we have enhanced our AMI Head-End System to boost system performance and network communication. We also initiated smart meter data analysis to improve monitoring of meter conditions and to identify irregularities.



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 on planned shutdowns and supply interruptions via our website and app



E-billing / E-payment / Group Billing / Bill of Small Outstanding Amount Services
Environmentally friendly and convenient options for billing and payment



One-stop Services for SMEs / Data Centres
Comprehensive services for business start-ups 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 and mobile app 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 counters



For the Visually impaired
Voice-assisted e-bill service, Braille bills and a tactile guide path installed at our Customer Centre



For the Elderly
“Web for the Elderly” and express counters equipped with magnifying glasses



For the Disabled
Automatic doors for access to our Customer Centre and a dedicated wheelchair-friendly counter





Connecting with our Customers

We engage with customers continuously and listen carefully to their feedback through various channels, including our website, social media and virtual or in-person meetings. Our Customer Liaison Group (CLG) is a valuable forum for exchanging ideas with customers and gauging public opinion on critical issues. In 2023, the CLG comprised 43 members, including customer representatives and representatives from district councils and community organisations. Throughout the year, online and face-to-face meetings were organised to share HK Electric’s latest developments.

Our other communication channels include a customer service hotline, customer service surveys, “We Meet on Friday” sessions, customer suggestion and feedback form, excellent service commendation form and our quarterly newsletter “HK Electric Online”. During the year, we continued to strengthen video communications through KR44 TV, which mimics “HK Electric Online”, and produced various short programmes on our latest developments, environmental protection work and customer services.



Personal Data Protection

We are committed to respecting and safeguarding customer privacy in accordance with our Privacy Policy Statement and Personal Data Privacy Policy to ensure compliance with the Personal Data (Privacy) Ordinance and other relevant codes of practice.

Our Privacy Management Programme incorporates annual personal data inventory reviews and privacy impact assessments to evaluate the effectiveness of data handling and identify areas for improvement. Our Personal Data Protection Officer oversees the programme and coordinates with our Customer Personal Data Protection Officer and Employee Data Protection Officer to implement appropriate controls and raise awareness among our employees. Our Data Loss Prevention system prevents unauthorised disclosure of personal data through the Internet, emails, portable storage devices or file transfers. In the event of a breach, we have automated incident procedures and response plans in place.

In 2023, HK Electric received a “Privacy-Friendly” Gold Award from the Office of the Privacy Commissioner for Personal Data. In the context of emerging privacy risks associated with the evolving technological landscape, we have proactively formulated new Guidelines for Collection of Personal Data via Digital Means to educate our employees and ensure responsible data collection practices throughout our operations.





Smart Power Services

Buildings account for the vast majority of Hong Kong’s energy consumption, which means that engaging with our customers and the public to promote EE&C is critical for reducing the city’s energy intensity and carbon emissions. HK Electric fosters EE&C, RE, electrification and low-carbon lifestyles in the community through a suite of funding and initiatives known collectively as Smart Power Services.

We raise awareness and engage with stakeholders about the Smart Power Services through a range of channels, including our webpage and YouTube channel, mobile app, phone hotline, bill inserts and email enquiry service. We have various initiatives in place targeting residential, commercial and industrial customers, including the construction industry and education and welfare organisations. To facilitate a just transition to a low-carbon economy, our focus is on supporting members of the community who are most in need, including underprivileged households and SMEs.

To instil environmental awareness among Hong Kong’s public, particularly the youth, our Smart Power Gallery offers physical and virtual tours providing education on climate change, carbon neutrality, RE and smart city concepts. In 2023, there were 122 physical and virtual tours of the Smart Power Gallery, including tours for kindergarten-age children.



Green Energy Partner, Powers up a Low-Carbon World Rallycross Championship

During the year, we distributed an activity book for young learners entitled “Decarbonisation ABC” and launched a new Coding Workshop for primary and secondary school students. This workshop is integrated into our guided tours, offering an enhanced learning experience focused on promoting RE and green transportation.

Looking ahead to 2024, we have set aside over \$55 million to enhance decarbonisation initiatives under the Smart Power Services. This funding will support the underprivileged with cash coupons, assist welfare organisations and schools with subsidies for installation of solar photovoltaic systems and promote low-carbon living to advance Hong Kong’s journey towards carbon neutrality.





2023 Accomplishments

Energy Efficiency

Smart Power Building Fund

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



109 applications were approved representing **159** buildings and **~\$38 million** in subsidies.

Smart Power Energy Audit

Free energy audits for non-residential customers to help identify energy saving potential



210 free energy audits were conducted.

Smart Power Loan Fund

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



3 major banks have participated in the loan provision.



Smart Power EV Charging Solution

One-stop service for customers to implement EV charging solutions



37 private residential estates were supported to apply for the Government's EV-charging at Home Subsidy Scheme (EHSS) and technical advice was offered to **~100** non-EHSS carparks.



Smart Power for Construction Site

One-stop service to provide timely and sufficient grid-electricity supply for construction sites



15 service requests were handled.

Smart Power for Data Centre

One-stop service for industry practitioners to develop low-carbon data centres



2 service requests were handled.

Renewable Energy

Feed-in Tariff Scheme

Purchase of electricity generated by customers' grid-connected RE power systems at Feed-in Tariff rates



160 RE grid connections were made, amounting to **~3.4 MW** in total installed capacity.

Renewable Energy Certificates

Sale of certificates to help customers achieve RE/ environmental targets while supporting local RE development



All green electricity generated in 2023 was fully subscribed (with **~9.1 GWh** subscribed as Renewable Energy Certificates for calendar year 2023).

Green Education

Smart Power Education Fund

Promoting EE&C, RE and low-carbon lifestyles through our Happy Green Campaign (\$5 million allocated annually)



>100,000 participants were recorded in various activities. (Please see the chapter on [Sharing our Planet](#) for more information.)

Supporting the Needy

Smart Power Care Fund

Providing services, advice and financial assistance to help the disadvantaged (including households living in SDUs), customers and the community adopt low-carbon and smart lifestyles and improve living environment



~52,000 underprivileged families benefited from:

- Energy-efficient Appliance Subsidy Programme
- SDU Electricity Charges Relief Programme
- SDU Rewiring Subsidy Programme
- "Care and Share" 2023 Dining Coupon

68 NGO community centres benefited from:

- NGO Catering Subsidy Programme

50 non-residential customers benefited from:

- Energy-efficient Equipment Subsidy Programme

28 projects were approved under:

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



Caring for the Community

Management Approach

Caring for our community is central to our corporate ethos at HK Electric. Our efforts focus on deploying technical expertise, volunteering time and resources to aid those in need. For decades, our community investment strategy has worked to create lasting social benefits by partnering with leading NGOs dedicated to elderly care and environmental education.

Our community investment activities are steered by our Sustainability Policy, and Media, Stakeholder Engagement and Donation Policy, ensuring that our contributions are impactful, culturally respectful and aligned with our values and sustainability goals. In 2023, our commitment to social responsibility has once again earned HK Electric the "10 years+ Caring Company Logo" from the Hong Kong Council of Social Service.



Caring for our Elders

"CAREnJOY for the Elderly" is one of our signature community programmes, which we run in partnership with nine elderly service NGOs on Hong Kong and Lamma Island to show care for single elders. In 2023, we resumed our electrical safety talks, reaching out to about 800 elders through 12 talks held in various districts to promote domestic electrical safety and energy efficiency. After a three-year pause, we recommenced our home visits and extended care to more than 90 households with single elders in the second half of the year.



We also continued sending useful information about green living, home safety and health tips regularly to around 10,000 elders via our "CAREnJOY Non-stop" mobile-phone message service throughout the year. Under the "CAREnJOY Go-Go-Go," we distributed giftbags, daily necessities and personal care supplies to 1,200 seniors living on their own across Hong Kong and Lamma Island.



Fun & Joy

To alleviate the impact of social isolation in the aftermath of the COVID-19 pandemic, we launched a new initiative – Fun & Joy – in 2023, which encourages elders to join outings and become more socially involved. In the second and fourth quarters of the year, more than 350 elders enjoyed outings to the movie house and The Peak.



Golden Third Age

The U3A (University of 3rd Age) Network of Hong Kong was co-founded by HK Electric and the Hong Kong Council of Social Services in 2006. This partnership promotes lifelong learning, and mental and physical fitness by encouraging local retirees to pursue their interests, fulfil their dreams and continue to contribute to the community. During the year, 486 courses/classes were organised providing 2,910 learning opportunities.

In 2023, we funded 35 self-learning centres operated by 15 social service agencies through the HK Electric Centenary Trust. From April to December, about 300 U3A students attended three thematic sessions covering retirement planning, post-pandemic travel and gerontechnology. There were also three outings focused on green living and smart city development attended by about 40 U3A students.



U3A - "Keys to a Happy Retired Life" Sharing Session

U3A "Travelling at 3rd Age" Sharing Session

Two outstanding U3A students and two guest speakers joined a radio programme to share their experiences and professional knowledge of retirement planning.



Never Stop Dreaming

In support of the United Nations' Decade of Healthy Ageing, "U3A Dream+" was launched in 2023 to encourage local retirees to pursue their dreams and continue contributing to society. Seven self-driven projects were selected to empower retirees to unleash their potential, turning dreams into reality and co-creating social impact. The teams are now

implementing their projects in full steam hopefully to gain more recognition at the final presentation held in 2024.

In November, 10 members from the "U3A Dream+" teams hosted a sharing session at the Gerontech Expo to share their dreams, their plans and their works about being an "active senior."



E+ercise Anywhere



Journey through Story



Creative Caretaker

Elder Clowns in Town



Walk Along
Dream Along



MEMROR the Choir



Highrise Greenery



Giving to Good Causes

In 2023, we continued to support various charitable causes through sponsorships and donations to aid students from low-income families, NGOs, green organisations and community groups among other beneficiaries. In addition to funding U3A centres, the Centenary Trust provided scholarships for 70 secondary school students. We also donated 481 computer items to underprivileged households through our longstanding collaboration with Caritas.



Please refer to the section on [Smart Power Services](#) for more information about HK Electric's programmes to support people-in-need.

HK Electric Volunteers

We encourage and support our employees to contribute their time, knowledge and expertise towards local community affairs. Since 2004, the HK Electric Volunteers team has grown to include approximately 1,200 employees.

2023 saw the full resumption of physical services. Our volunteers contributed more than 3,370 service hours to 32 services or projects during the year, including supporting patients with epilepsy to compete in an Indoor Rowing event, selling old books for World Vision and conducting mock job interviews for secondary students. The Team also helped prepare and distribute hot meals for homeless people through a long-term service project co-organised with the St. Barnabas Society and Home.

To make it easier for our volunteers to track their services record, we launched an internally developed service management platform – EasyLog – in the first half of 2023. EasyLog provides volunteers with quick access to their service records. It is also equipped with functions of redemption of service incentives, service planning and real-time attendance recording to improve operational efficiency and encourage more colleagues to join our services.



 HK Electric Volunteers Team 2023



Running a
Sustainable Business

Sharing
our Planet

Serving
Hong Kong

Working with Partners

Co-creating

Shared Values





BEIJING UNIVERSITY OF AERONAUTICS AND ASTRONAUTICS
STATE GRID CORPORATION OF CHINA
HONG KONG ELECTRICITY COMPANY
100 YEARS OF FOUNDED

**BELT AND ROAD
Advanced Professional Development Programme in Power and Energy Graduation Ceremony**
「一帶一路」電力能源高層人才發展計劃結業禮

22.8.2023

BEIJING UNIVERSITY OF AERONAUTICS AND ASTRONAUTICS
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22.8.2023

Mr. LUYI Sheng

Prof. Dr. ZHANG Zhiwei



Working with Partners

Overview

Employees, contractors and other suppliers are essential business partners who play a key role in helping achieve our Vision of excelling in the power business in Hong Kong while maintaining safe and responsible business operations.

Recognising that our business is only as resilient as our workforce, we are committed to cultivating a rewarding and fulfilling work environment. We empower our people to achieve their full potential through teamwork and open dialogue. We promote their well-being through comprehensive wellness programmes and invest in their professional development in line with our Learning and Development Policy.

We strive for zero accidents. Our Health & Safety Policy is reviewed biennially by our Health and Safety Board. It integrates safety considerations into all aspects of our business with emphasis on risk mitigation in full compliance with applicable laws and regulations.

Our Safety Management Systems conform to ISO 45001 covering 100% of our operations across power generation, transmission, distribution and infrastructure development. These are complemented by our robust Asset Management Systems conforming to ISO 55001, safeguarding our customers and the public as well as employees and contractors. We conduct regular third-party audits to ensure the integrity of these systems.

As a responsible corporate citizen, we require all business partners to uphold our Core Values and to 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, climate action and cybersecurity. Our robust procurement process complies with ISO 20400 Sustainable Procurement – Guidance, ensuring that we embed sustainability in all purchasing decisions.

In accordance with our Human Rights Policy, which extends to all employees, we are dedicated to upholding international principles of human rights. We expect and actively encourage our business partners and suppliers to adhere to these principles and implement similar policies.





Respecting Human Rights

Management Approach

We are committed to honouring human rights in accordance with our Human Rights Policy. To implement this policy effectively, we have incorporated respect for human rights explicitly in our Code of Conduct and our Code of Practice for Suppliers. We also conduct regular training for our employees.

In addition to ensuring compliance with human rights legislation in Hong Kong, we respect international human rights principles enshrined by the Universal Declaration of Human Rights, the International Bill of Human Rights, the International Labour Organisation’s 1998 Declaration on Fundamental Principles and Rights at Work, and the United Nations Guiding Principles on Business and Human Rights.



Our operations comply fully with the Employment Ordinance, which prohibits child labour and forced labour. In 2023, none of our operations were identified as having risk of incidents of child, forced or compulsory labour.

Our Commitment to Human Rights

As an equal opportunity employer, we strive to ensure fair and equal treatment irrespective of gender, disability, family status, race, age, sexual orientation or other personal attributes. We base recruitment, advancement and other human resources decisions solely on objective criteria in line with the Employment Ordinance and Equal Opportunity Ordinance. Having said this, we also cultivate a diverse workforce representing a mix of skills, experiences and perspectives. To redress gender imbalance in our industry, we are actively increasing representation of women at all levels of our organisation.

We strive to provide a supportive and transparent working environment free from discrimination and harassment. In support of our employees’ right to fair treatment, we implement whistleblowing and grievance procedures that are designed to ensure sensitive, confidential and independent investigation of reported concerns. Human rights reviews and impact assessments will be conducted, where necessary.

We uphold employees’ freedom to participate in or establish Trade Unions without risk of retaliation, intimidation or harassment. For those represented by an officially

recognised Union, the Senior Manager (Employee Relations) serves as the primary contact for Union representatives. Additionally, we periodically invite our employees, regardless of Union membership status, to contribute their views and suggestions in focus group discussions.

Our Code of Practice for Suppliers sets out standards for business partners on ethical conduct and safeguarding human and labour rights, including freedom of association, anti-discrimination and prohibition of child and forced labour. We are also committed to promoting human rights in our community by ensuring electricity is accessible and affordable for all and by reaching out with a helping hand to those in need.

For more information about our practices for supplier engagement and how we support those in need through our Smart Power Services and other community investment initiatives, please refer to the [Managing our Supply Chain](#) section of this chapter and the [Serving Hong Kong](#) chapter of this report.



Promotion of Anti-discrimination and Equal Opportunities in 2023



>200
new hires



>280
employees



7
workshops

Over 200 new hires attended HK Electric's Orientation Programme, featuring a briefing on the Anti-discrimination Ordinances and the company's Code of Conduct.

Over 280 employees attended two webinars on the Anti-discrimination Ordinance and HK Electric's corresponding policies and guidelines.

Seven workshops on Application of the Anti-discrimination Ordinances for Managers were held to help participants understand how to manage team members' performance and behaviours and mitigate associated risks.





Human Capital Management

Management Approach

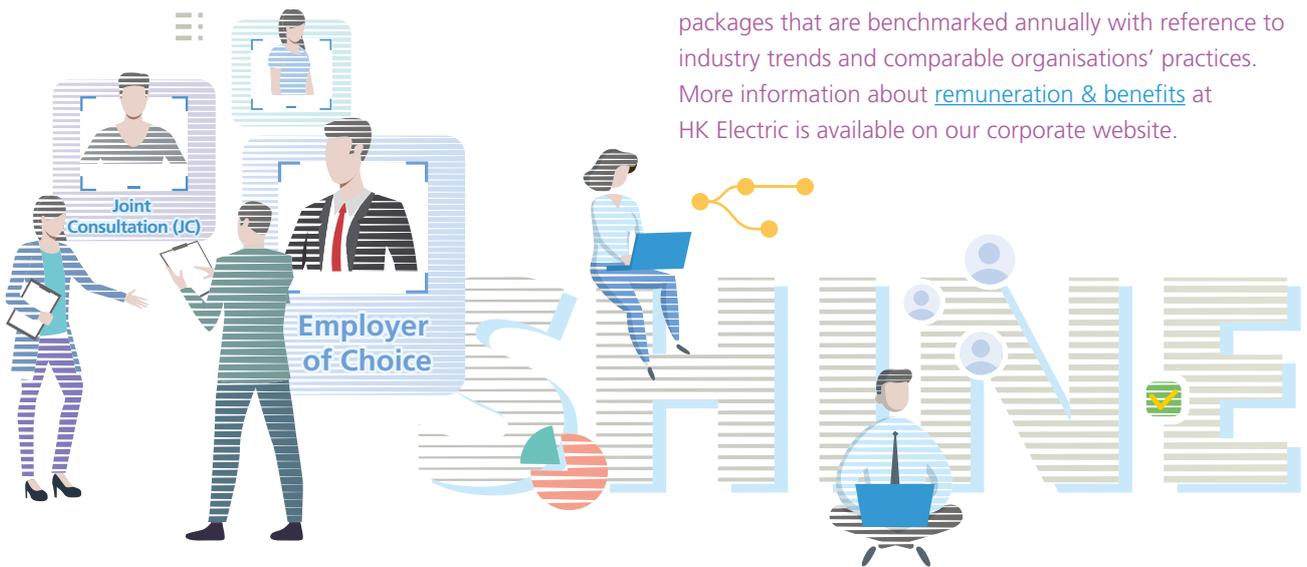
Our workforce is the heart and soul of our business. We embrace diversity, equity and inclusion (DEI). We strive to treat our colleagues fairly and reward their performance while listening and responding to their needs. We are proud to be an “employer of choice” that attracts and retains top talent. To overcome labour supply challenges facing our industry, we seek out both experienced candidates and young people embarking on new careers in the power sector. In 2023, we ranked among the top twenty Most Attractive Employers in Hong Kong in the annual Randstad Employer Brand Awards.



The essence of HKEI’s human resource strategy is captured by the acronym **“SHINE”**, which stands for **Synergy, Holistic Development, Ideal Workplace, Nurture Future Leaders and Excellence**. These are the guiding principles for our Human Resources Steering Committee that is responsible for leading our continuous efforts in nurturing a harmonious and productive workforce. To facilitate effective communication with all colleagues, we meet regularly with our Joint Consultation (JC) Committee members. In addition, we conduct quarterly focus group meetings with employees and arrange thematic discussions or briefings on organisational matters. We also have a formal grievance procedure to address and resolve employee concerns.

Training and guidance is important for helping our people develop skills and gain experience, especially as we transition towards carbon neutrality by adopting green energy solutions. In line with our Learning and Development Policy and Promotion and Transfer Policy, we support employees to pursue long-term career development goals by investing in their personal and professional growth. We also proactively seek partnerships with industry and academia to promote knowledge sharing. Consequently, many colleagues enjoy long and fulfilling careers with us.

We incentivise excellence through our pay-for-performance approach, offering competitive remuneration and benefits packages that are benchmarked annually with reference to industry trends and comparable organisations’ practices. More information about [remuneration & benefits](#) at HK Electric is available on our corporate website.





2023 Employee Profile

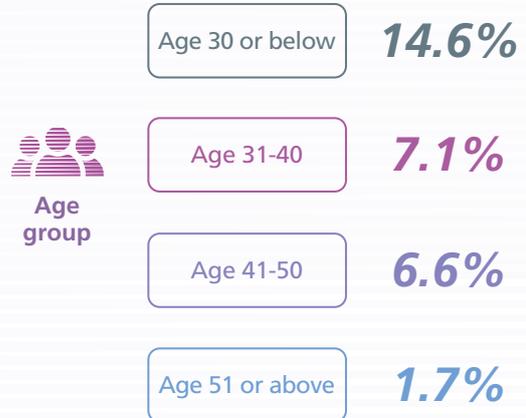
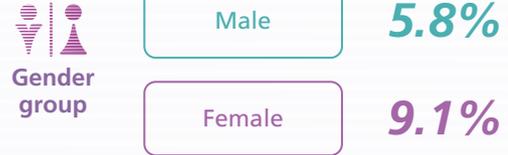


Note:

- All employees are based in Hong Kong and nearly all are locally employed.
- Reported figures may not add up to the total due to rounding.



2023 Voluntary Turnover Rate



6.5%
Overall Turnover Rate





Engaging with Employees

We prioritise timely and consistent employee engagement to build constructive relationships and monitor employee satisfaction. To achieve this objective, we operate various internal communication channels, including our Corporate Intranet Portal, My HKE mobile app, “Ideas Click” online suggestion platform, special taskforces, subject matter briefing sessions and an employee hotline.

We have been promoting effective and open communication for more than 40 years through the JC Committee which is composed of six formal panels. 70 directly elected representatives from various employee groups participate in the six panels, providing an effective platform for management representatives to share important information and enabling employees to respond with their ideas and opinions.

Although collective bargaining agreements are not covered by local legislation, we maintain open communication with Trade Unions through ad hoc written and oral exchanges as well as regular meetings. We are committed to idea sharing with Union members, as needed. Additionally, elected JC

representatives engage with employees individually or in groups to gather feedback and relay their views to senior management via the Human Resources Division.

Each quarter, we invite employees selected at random from various business units to participate in dedicated focus groups and share their views on specific topics. “Hear Your Voice” is another regular forum for dialogue between our young talent and our Managing Director and senior executives. It is a particularly valuable tool for gaining insight into the perspectives of younger employees.

All employees receive annual performance appraisals. Our Performance Management System enables supervisors and appraisees to align through all three phases of the appraisal process from performance planning and mid-year review to year-end evaluation. Additionally, we provide targeted support in the form of small group reinforcement meetings and individual follow-up calls for recently promoted frontline supervisors who have participated in our “Meeting the Challenge for Success” workshop to facilitate smooth adaptation into their new roles and responsibilities.



Connecting with Employees in 2023



70 young employees engaged in one-on-one discussions with senior executives as part of the “Hear Your Voice” initiative.



12 JC panel meetings were held to discuss a range of topics concerning business operations and employee welfare.



Over 60 employees were invited to share their opinions and suggestions during quarterly focus group discussions.



270 newly promoted frontline supervisors attended training workshops and small group reinforcement meetings and received individual follow-up calls to support them as they adapt to their new roles and to offer assistance.



Attracting and Retaining Talent

We conduct an annual workforce planning exercise to evaluate our staffing needs over a 10-year timeframe so that we can ensure our workforce continues to provide the skills and expertise required to sustain our business over the long term. In addition to rewarding staff for introducing qualified individuals to our organisation through the Employee Referral Scheme, we also collaborate with industry and academic bodies to promote our career opportunities and employer brand.

Besides, an E-Buddy Programme has been in place since 2015. It is part of our New Hire Care Programme initiatives aiming at helping our new hires assimilate quickly and easily into our corporate culture. Each new hire is partnered with an experienced colleague known as E-buddy. The E-buddies have received training on communication skills and promoting positive dynamics at the workplace. In 2023, 66 E-buddies were nominated by various business units to offer support to new hires, including advice, resources and guidance to facilitate assimilation.

Under our pay-for-performance approach, we compensate employees based on overall performance, encompassing their achievements against targets as well as demonstrated competencies. To ensure that we maintain a leading edge for talent retention, we regularly review our practices on employee pay, benefits and rewards. We also continually update our job design and working conditions to better engage our employees and enable them to perform at their best. This is particularly important for attracting, nurturing and retaining younger professionals.

To foster awareness about career prospects with HK Electric, we engage with students in local universities through career fairs and recruitment presentations. To gain hands-on industry experience, young individuals are invited to partake in various trainee and internship programmes.

Attracting Young Talent

Career Fair and Expo

In 2023, we sought to attract and nurture new talent by participating in a series of virtual and physical career fairs organised by local universities. Our presence at these events enhances our employer brand and helps raise awareness about our Trainee Programmes and other entry-level opportunities.

During the year, we participated in the E&M Expo organised by the Hong Kong Electrical and Mechanical Industry Promotion Working Group to inspire and enlist new apprentices in the electrical and mechanical trades. We also delivered online and on-campus recruitment talks at local universities.



As a result of our recruitment activities, we warmly welcomed seven new Graduate Trainees to HK Electric.

Industrial Placement Programme

Through our Industrial Placement Programme, we provided opportunities for two third-year Bachelor's degree students and three second-year Higher Diploma students in IT-related disciplines to gain on-the-job exposure. This was an effective way to help prepare them for careers in the industry.

Vacation Trainee Programme

Through our Vacation Training Programme, we provided dynamic on-the-job experience for 18 second and third-year students of Bachelor's degree programmes in engineering, IT, business, environmental science, public administration and journalism. This initiative enriched the participants' summer vacation with practical insights and hands-on exposure in their respective fields of study.





Opportunities for Growth

In accordance with our Learning and Development Policy, we provide upskilling and professional development opportunities to equip our workforce with expertise and experience to excel in all core areas of our business. Transition from coal-fired to gas-fired generation is a critical issue that is diligently addressed through various channels of communication between management and employees. We are dedicated to ensuring a just transition in which every employee currently engaged in coal-fired operations will receive retraining and be reassigned to alternative positions within our organisation to suit the transition program.

The Managing Director conducts an annual succession planning exercise with individual business unit heads with the support of the Human Resources Division. We also regularly assess employees' training needs in consultation with line managers as part of our performance appraisal process. Relevant divisions coordinate

technical and functional training, while the Human Resources Division is responsible for other learning and development opportunities, such as a wide spectrum of competency-based learning modules as well as our Leadership Development Programme and Young Talent Development Programme that are aligned with the company's Four-level Leadership Competency Framework.

The HK Electric Institute nurtures technical and professional competencies of our workforce by facilitating knowledge transfer from seasoned employees and retirees to current employees. In 2023, the Institute organised a series of courses on various topics. We also collaborate with local universities to enrich learning opportunities and strengthen our industry's talent pool. Our partnership with The Hong Kong Polytechnic University, for example, enables us to share professional and technical expertise, proprietary information and access to equipment and facilities.



Learning and Development at HK Electric

Talent development

Programme/initiative	Purpose
Trainee and Professional Development Programmes	Support young recruits to build professional careers
Rotational Development Programme	Nurture untapped leadership potential through cross-functional job rotations
Accelerated Development Programme	Accelerate preparation of exceptionally high-potential talent for leadership positions
Young Talent Development Programme	Advance young talent into first-line leadership roles
Leadership Development Programme	Prepare mid-level leaders to succeed senior leadership roles
Executive Education Programmes	Enable senior and mid-level leaders to benefit from inspiring learning experiences with external executives and develop business acumen

Knowledge sharing

Programme/initiative	Purpose
HK Electric Institute	Transfer knowledge and expertise to the next generation
	
Seminars, workshops and online learning platforms	Strengthen learning culture across the Company
Knowledge inventory	Enable systematic planning for knowledge succession



2023 Employee Training



Percentage of employees trained (%)



Average training hours per employee

Gender group

Male **97.8%**

Female **95.4%**

Gender group

Male **30.9**

Female **26.7**

Employee category

Senior staff **98.7%**

General staff **98.2%**

Workman **80.8%**

Employee category

Senior staff **27.9**

General staff **31.3**

Workman **12.3**

Overall
97.3%

Overall
30.0

55,606
Total Training Hours

Remarks:

- Training hour figures exclude employees who left HK Electric in 2023.
- Total training hours of employees who left HK Electric in 2023 was 2,005.



● Experience sharing with State Grid



2023 Learning and Talent Development Initiatives

Learning-for-All Series

Over 550 employees participated by self-enrolment in four webinars in our Learning-for-All Series. These webinars were entitled: Enhancing Persuasive Communication Skills, Boosting Adversity Quotient (AQ) for Greater Resilience, Understanding and Leveraging AI, and Mastering Skills for Conducting Effective Online Meetings.

Fostering a Self-directed Learning Culture

In October, we launched a new online Learning Management System, i-learn, to foster a culture of self-directed learning and support sustainable preservation of knowledge within our organisation. More than 60 video-based learning modules are available on a range of topics.

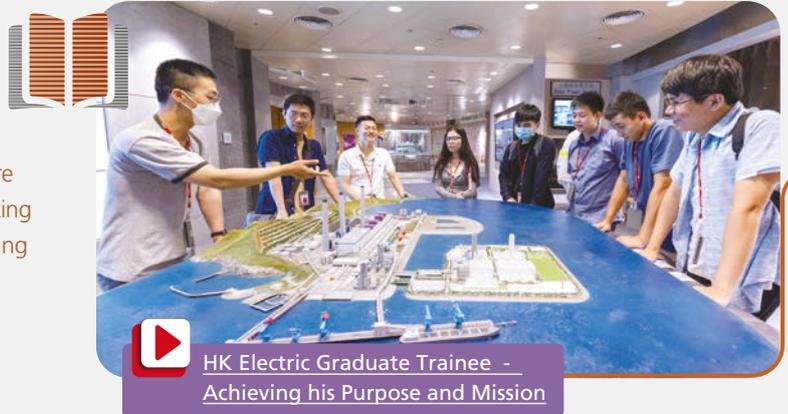
During the year, 28 teams participated in a Self-learning Video Contest that was initiated in 2022. All teams showcased expertise in their respective fields by producing training or educational videos.



Development Programmes for Young Talent

In 2023, we welcomed seven new members into our Trainee and Professional Development Programmes, including six Graduate Trainees and one Trainee Technician, along with five directly hired young professionals exhibiting high potential. Two exceptional individuals were also selected for our Accelerated Development Programme.

Since the launch of our Young Talent Development Programme in 2018, 36 young people have completed the programme. Of these, 29 continue to be employed by HK Electric, with 19 having advanced one to three levels beyond their initial roles.



Collaboration with External Organisations

We arrange site visits and knowledge-sharing sessions with peer organisations for our employees on an ongoing basis as part of our commitment to benchmarking against industry best practices and facilitating exchange of ideas.

In April, we hosted 25 managers and engineers from ASMPT at our LPS and Electric Tower. In October, four distinguished executives and experts from the State Grid delivered presentations on "Rethinking in Construction of a New Power System" and "Development Trend of the Hydrogen Industry and Discussion on the Electricity-Hydrogen Hybrid Model in China". The seminar was attended by over 130 employees.





Promoting Employee Well-being

Caring is one of our Core Values. We embrace this value in our management approach to promoting employee well-being through comprehensive wellness programmes encompassing physical and psychosocial health and healthy work-life balance. For the ninth consecutive year, we were named as a Happy Company by the Happiness-at-Work Promotional Scheme.

We support our employees to cultivate and maintain strong familial bonds through our Code of Practice for

Work from Home and staggered working hours, which empowers business unit heads to tailor employees' working arrangements to their specific work nature and circumstances. Our comprehensive leave policies, including parental and examination leave, are structured to support employees to achieve optimal balance between their professional and personal lives.

2023 Employee Health and Well-being Initiatives

Psychosocial Programme Series

Our psychosocial programme series, launched in 2021, aims to bolster the emotional resilience of supervisors and managers by supporting them to handle pressure at work and challenges in their personal lives. The series comprises a foundational module with follow-up session for newly promoted frontline supervisors and an advanced workshop with learning session for mid-level leaders. In 2023, this programme was attended by over 120 first-line leaders (Level 2) and 13 mid-level leaders (Level 3).

Good Neighbours' Club

The Good Neighbours' Club (GNC) comprises more than 150 colleagues trained in employee counselling so they can provide timely emotional support for their peers at work. To bolster this network, inspirational stories and resources are regularly shared via our Corporate Intranet Portal and My HKE App. In 2023, a Basic Employee Counselling Skills Workshop welcomed 20 new GNC members. We also conducted an intermediate-level workshop for 19 GNC members to further enrich their knowledge and skills on counselling.



Interest Class and Fitness Course

In 2023, 65 participants participated in online Chinese New Year paper craft and make-up tutorials. A variety of physical classes—including tai chi chuan, pilates and team sports like table-tennis, badminton, basketball, soccer and lawn bowls—were attended by more than 1,000 participants throughout the year. Additionally, 138 colleagues benefited from a gym room training course and our Runners' Club expanded to 108 members, with 15 training sessions drawing a total of 286 participants.

Promotion of Health and Family-friendliness

During the year, over 100 colleagues attended talks on alleviating neck and shoulder pain and participated in stretching exercises such as Shuaishougong and Baduanjin. To promote environmental friendliness through family fun and bonding, we also ran a "Decarbonisation ABC" class based on our popular children's activity book. This was attended by 13 employees and 24 family members, including 17 children.





Wellness Initiatives at a Glance



Physical and intellectual well-being

- Interest groups and interest classes;
- Health talks, fitness courses and recreational facilities;
- Distribution of fruit;
- Flu vaccinations;
- Medical check-ups for eligible employees; and
- Tips on physical wellness.



Emotional and social well-being

- Volunteering activities;
- Employee Recreational Subsidy;
- 24-hour Employee Counselling Hotline Service manned by professional counsellors;
- Good Neighbours' Club providing timely emotional support to colleagues ;
- E-buddy programme helping new hires assimilate into our corporate culture; and
- In-house educational programme on psychosocial wellness.



Good family relationships

- 5-day work week;
- Flexible work arrangements in special circumstances;
- Lactation rooms for breastfeeding mothers;
- Medical check-up plans and flu vaccinations for employees' family members at preferential rates;
- Children's Education Subsidy;
- Family day, outings and eco-heritage tours; and
- Parenting talk.



• "Dog doctor" workshop



Health & Safety

Management Approach

Our robust culture of safety is guided by our comprehensive Health & Safety Policy, which outlines our approach to protecting the health and safety of employees, customers, contractors and the public. HK Electric's Health and Safety Board is chaired by the Managing Director and meets quarterly to oversee implementation of the policy and related guidelines. It is supported by divisional/departmental health and safety committees for monitoring health and safety performance, reviewing training needs and formulating safety measures and emergency response plans. We also have dedicated sub-committees for engaging with employees and contractors on health and safety issues. These sub-committees facilitate overall engagement with internal and external stakeholders, ensure robust communications and publicity and report comments and suggestions from workers on health and safety issues.



We have comprehensive Safety Management and Asset Management Systems in place adhering to ISO 45001 and ISO 55001 covering 100% of our operations across power generation, transmission, distribution and infrastructure development. At LPS, our dedicated Natural Gas Safety Management System covers the design, construction, commissioning, operation and maintenance of gas facilities and gas-fired generating units.

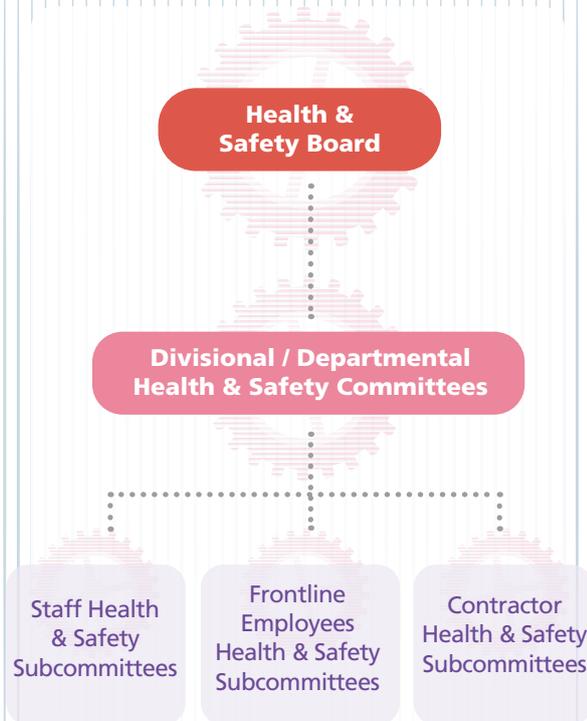
In addition to rigorous health and safety guidelines, our Corporate Health & Safety Manual aligns with recommendations from the Labour Department's Code of Practice on Safety Management. It is reviewed and updated regularly to ensure compliance with industry best practices and government regulations.

We strive to achieve zero accidents among employees and contractors and to provide customers and the public with a safe and reliable supply of electricity. We implement health and safety programmes, maintain high standards in all facilities, deploy advanced technologies and ensure safety preparedness. We also promote health and safety awareness by educating our employees about safety culture, encouraging knowledge sharing and providing incentives for employees and contractors to maintain incident-free operations.

Occupational health and safety is a critical component of just transition. We acknowledge the associated risks as we navigate the complexities of climate change, including new work processes associated with switching from coal to gas and other green energy. We are committed to integrating robust health and safety considerations into every aspect of our transition process.



HK Electric's Health & Safety Governance Structure





Safety First

We place strong emphasis on employee health, workplace safety and health and safety culture. Our management approach includes comprehensive risk assessments and targeted measures to mitigate safety risks. We also provide comprehensive training for employees and contractors, reward safety excellence and implement various campaigns and activities to heighten health and safety awareness. We have a dedicated "Health & Safety Information" corner on our Corporate Intranet Portal and disseminate health and safety updates through emails and notice-board displays.

During the year, we updated our Corporate Guideline on Prevention of Heat Stroke at Work in a Hot Environment in response to escalating risks posed by climate change. These revised guidelines offer clearer directives for minimising heat-related stress and risk of heat stroke for employees and contractors working in high-temperature conditions.



Furthermore, in response to the specific dangers of working in confined spaces, in 2023, we mandated video-recording of workers entering and exiting confined areas, such as underground pipelines and drainage/sewage manholes, as part of the requirements in our work contracts. Recognising the grave implications of cable damage during excavation work, we have also reinforced precautionary measures with our trenching contractors.

In addition to engaging with employees and contractors, we engage with customers and the public on health and safety awareness too. We distribute educational materials on electrical safety and proper use of electricity via several platforms, including service pamphlets, our corporate website, the HK Electric App and our Customer Centre and Call Centre.

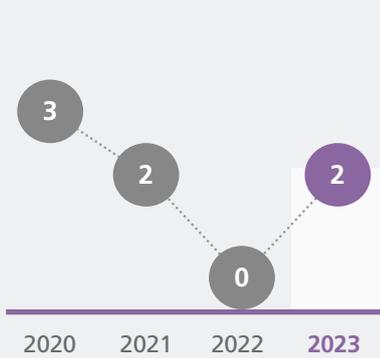




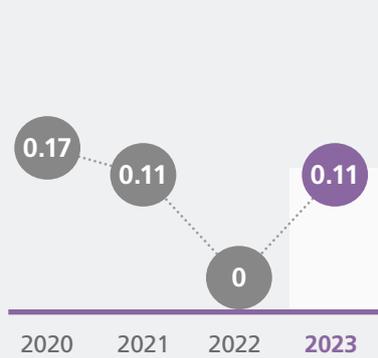
Employee Safety Performance

The number of Lost Time Injuries among our employees has remained consistently low in recent years, although there were two such incidents, albeit minor ones, recorded in 2023. Due to these incidents, we missed one of our targets for continuous improvement, cited as reduction in Lost Time Injury Frequency Rate as compared to the average of the previous three years. The incidents were thoroughly investigated and preventive measures have been implemented. For additional Health & Safety data, please refer to the [Key Statistics](#) section and [GRI Content Index](#).

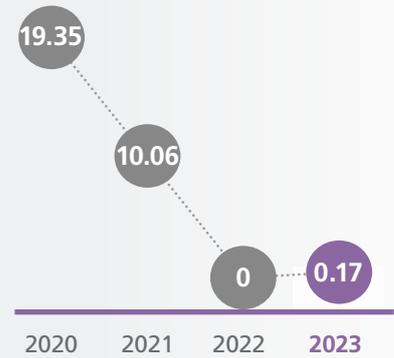
Number of Lost Time Injuries



Lost Time Injury Frequency Rate*



Lost Time Injury Severity Rate*



* Per 200,000 employee-hours

- Health & Safety Forum to raise awareness



2023 Risk Prevention Indicators



393

Work Safe Behaviour observations



2,355

safety inspections



49

reported near-miss incidents



4,590

risk assessments



8.6

average safety training hours per employee

Health and Safety Management Practices

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 persons 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 reoccurrence;
- Work Safe Behaviour programme to eliminate risky behaviours in a range of operational areas;
- 5S Good Housekeeping programme to enhance workplace efficiency, occupational health and safety, space utilization and cleanliness;
- Workplace hygiene inspections and participation in Hong Kong's voluntary IAQ Certification Scheme to ensure a healthy work environment;
- Oil-free distribution substations and zone substations to reduce potential fire hazards; and
- Contingency plans and procedures.



• Drill on power interruption incident

Training and awareness

- Comprehensive safety training for employees including the use of virtual reality technology to bring training sessions to life;
- Monthly safety briefings on selected health and safety topics for employees;
- Health and safety alerts for employees;
- Company-wide Safety Climate Index survey every three years;
- Promotional campaigns for employees and contractors, such as Health & Safety Week; Safety, Health & Environment Day; Health & Safety Forum; Life First Campaign; Environmental, Health & Safety Quiz; and health and safety talks;
- Relevant safety information on our corporate website for third-party contractors carrying out works near our power supply lines; and
- Engaging with our customers and the community to promote safe use of electricity.



• Safety, Health and Environment Day 2023

Encouragement

- Incentive and award schemes to recognise employees for zero-accidents;
- Incentive schemes for reporting near-miss incidents and safe driving;
- Supporting the "Charter on Preferential Appointment of Occupational Safety and Health Star Enterprise" by giving preference to contractors that have an effective Safety Management System in place for repair, maintenance, alteration and addition works; and
- Supporting the "Construction Safety Charter" by continuously enhancing our safety culture.



2023 Highlights on Raising Health and Safety Awareness

Proactive engagement with employees and contractors is essential for good occupational health and safety outcomes. We focus on raising health and safety awareness through comprehensive education on safety culture, fostering an environment of open knowledge-sharing and offering incentives to employees and contractors for achieving our goal of zero accidents.

- Produced an animated video explaining safety measures on Use of Display Screen Equipment
- Conducted a webinar on Manual Handling Operations and Prevention of Back Injuries for employees
- Organised “Life First 2023 – Walk the Talk” and “Distribution of Lo Pan Rice Campaign” at LPS, attended by more than 500 employees and contractor personnel
- Held a webinar on Work and Cardiovascular and Cerebrovascular Diseases for employees
- Convened an online Health and Safety Forum for employees and contractors themed “Safety, is an Attitude!” to promote a safety-first culture in the workplace



Timeline:

- March:**
 - Held “Good Housekeeping and Clean Shorelines Campaign” at LMX site and beach near LPS, with over 100 employees and contractor personnel participating
- April:**
- June:**
- July:**
 - Hosted Heart Caring Campaign cum Charter Signing Ceremony at LPS for more than 200 employees and contractor personnel
- September:**
- October:**
 - Organised Health & Safety Week 2023 at LPS on the theme of “Work Safe with Love, Remember the Ember” to raise fire awareness among employees and contractors at all levels
- November:**

Contingency Preparedness

Interruptions to the power supply may significantly affect community facilities, such as road traffic systems, communication infrastructure and lifts. We make every effort to provide 24-hour emergency customer support via telephone and SMS (Short Message Service). Contingency plans are in place to ensure smooth and efficient recovery from crisis situations, including natural disasters or other force majeure events. We review these plans regularly. We also have special contingency plans in place for hospitals. Customers operating life-support equipment are encouraged to register with us so that we can provide advance notification of planned supply interruptions.

We conduct regular drills with our employees, contractors and customers to enhance our emergency response capabilities. Our contingency planning processes consider



● Chemical spill drill at LPS

health and safety risks for employees, contractors, customers and the public during potential emergency situations, such as fire, oil and chemical spills, typhoons and flooding. They also consider various emergency responses, such as evacuations, confined-space rescues and treatment for heat-stroke or serious accidents. We also have a three-level contingency plan in place to manage outbreaks of influenza and other similar public health crises.



Managing our Supply Chain

Management Approach

Our procurement process adheres to ISO 20400 Sustainable Procurement – Guidance. We share our values and vision for sustainable development with diverse stakeholders throughout our supply chain. This network includes contractors, consultants and vendors providing essential materials and technical equipment, all of whom are integral for constructing, operating and maintaining our power facilities and supporting our daily operations.

Our supply chain comprises predominantly local companies, defined as those based in Greater China, including Hong Kong. Except for coal and natural gas, all other major input materials at LPS are supplied by local companies. In addition, we procure 90% of other general goods and services locally.

Our Code of Practice for Suppliers (CoP) is a living document that is regularly reviewed and updated to reflect the highest standards of business ethics, including anti-corruption, compliance with laws, intellectual property rights, data

privacy, competitive practices, anti-bribery and avoiding conflicts of interest. We encourage all suppliers to report publicly on their sustainability performance and expect them to act in accordance with the CoP, including communicating the standards outlined in the CoP to their own employees and suppliers.

The CoP also details our expectations regarding health and safety, cybersecurity, environmental protection and climate action, as well as protecting and promoting human and labour rights, including eliminating child and forced labour, respecting freedom of association and implementing anti-discrimination policies. To ensure adherence to the CoP, our policies and procedures are communicated to all contractors and suppliers in the Conditions of Tendering/ Bidding and as part of the application for admission to our Recognised Tenderers Register (RTR).

2023 Number of Suppliers by Geographical Region





Responsible Procurement

HK Electric is one of the founding members of the Hong Kong Sustainable Procurement Charter organised by the Green Council. We strive to work with suppliers who conserve resources and protect the environment in accordance with our Green Purchasing Policy and Green Purchasing Guidelines. In our procurement decisions for selected commodities, we consider environmental impacts together with other selection criteria such as quality, price and punctuality. Suppliers found to be in violation of our CoP, environmental laws and regulations may be excluded or suspended from our registered supplier list and be excluded from contracting.

In 2023, the percentage of environmentally friendly products listed in our Electronic Ordering System accounted for 40% of general office commodity items, up from 32% in 2022. Annual expenditure on these items amounts to approximately \$561,000. During the year, we organised a webinar on Integrity in Procurement attended by over 400 employees to heighten awareness of corruption risks in the procurement process.

Every tender or quotation received by HK Electric is handled according to established commercial procedures. We evaluate our fuel, limestone and urea suppliers on a case-by-case basis, including sustainability performance. For example, in 2023, we conducted a visit to a supplier's coal mine for on-site assessment of its operations, quality control and sustainability practices.

To be accepted onto our RTR, major suppliers of other materials and services undergo screening for environmental

and health and safety performance. We periodically review the RTR and request suppliers to submit updates on their sustainability performance. During the year, all new suppliers were assessed with respect to environmental and social requirements. In total, 56 suppliers were evaluated for environmental and social performance. No significant actual or potential negative impacts were identified.

Influencing our Suppliers

We work closely with our suppliers to achieve shared sustainable development goals, with particular focus on measures to improve environmental and health and safety performance. For example, we proactively encourage and support our contractors to reduce carbon emissions and improve local air quality by electrifying their construction sites.

Our Contractor Handbook includes detailed guidelines on environmental protection, health and safety, quality assurance, housekeeping and security. We meet with contractors regularly to monitor their performance and obtain feedback. In addition to working with contractors' Safety Officers to conduct site inspections, we encourage all contractors' employees to report near-miss incidents and offer their suggestions for preventing potential hazards in our workplaces. There is also a merit and demerit point system in place for trenching contractors to incentivise workplace safety.

Please refer to the section on [Health & Safety](#) for more information about how we engage with our contractors to enhance safety performance.

Engagement Seminar for Suppliers

In May 2023, we convened a Suppliers Engagement Seminar as a follow-up to our sustainable procurement survey for suppliers. The seminar focused on sustainable procurement



practices, emphasising climate resilience and carbon reduction initiatives. The event was well-received, with participation of 45 representatives from 26 suppliers.

At the event, guest speakers from prominent supplier companies shared insights and success stories about integrating sustainable procurement into their operations. Our in-house experts from various divisions also contributed to the discussion, presenting topics such as the United Nations' SDGs, best practices in sustainable procurement, and the importance of cyber security.



Key Statistics

Environment	2023	2022	2021
Fuel Consumed ^[1]			
Gas (TJ)	43,613	40,150	40,201
Coal & oil (TJ) ^[2]	51,687	55,210	62,421
Licence Compliance			
Percentage of Compliance (%)	100	100	100
Air Emissions ^[1]			
SO ₂ (kT)	0.81	1.36	0.82
NO _x (kT)	3.68	4.42	5.33
RSP (kT)	0.08	0.10	0.12
CO ₂ (million T)	6.59	6.73	7.35
Mercury (T) ^[3]	0.027	See note 3	See note 3
GHG Emissions			
Direct (Scope 1) GHG emissions (million T of CO ₂ e) ^[4]	6.64	6.77	7.39
Indirect (Scope 2) GHG emissions (million T of CO ₂ e) ^[4]	0	0	0
Indirect (Scope 3) GHG emissions (million T of CO ₂ e) ^[4]	1.08	1.07	1.10
Indirect (Scope 3) GHG emissions by category (kT of CO ₂ e):			
Cat. 1: Purchased goods and services	15.2	15.1	14.1
Cat. 2: Capital goods	170.2	235.1	228.8
Cat. 3: Fuel-related and energy-related activities	894.1	823.3	858.3
Cat. 4: Upstream transportation and distribution ^[5]	See note 5	See note 5	See note 5
Cat. 5: Waste generated in operations	0.3	0.4	0.5
Cat. 6: Business travel	0.3	0.0	0.0
Cat. 7: Employee commuting	0.5	0.4	0.4
CO ₂ e per electricity unit sold (kg/kWh) ^[6]	0.66	0.68	0.71
Material Non-Hazardous Waste ^[7]			
Ash collected for industrial uses (kT) ^[11]	105	123	162
Gypsum collected for industrial uses (kT) ^[11]	41	45	47
Construction waste from major construction projects for reuse (kT)	17	0	0
Construction waste from major construction projects for recycle (kT)	19	23	32
Construction waste from major construction projects for disposal (kT)	3	2	2
Material Hazardous Waste ^{[8],[9]}			
Waste oil collected for recycle (litre)	71,270	178,880	0
Waste oil collected for disposal (litre)	306,378	159,138	151,800
Other material hazardous waste recorded in volume for recycle (litre)	0	0	0
Other material hazardous waste recorded in volume for disposal (litre)	28,800	8,944	13,600
Other material hazardous waste recorded in weight for recycle (kg)	26,212	7,339	17,750
Other material hazardous waste recorded in weight for disposal (kg)	9,001	8,872	16,080
Water Consumption/Discharge ^[1]			
Seawater withdrawal & discharge (million m ³)	1,749	1,816	1,971
Town water consumption (million m ³) ^[10]	1.51	1.57	1.99
Wastewater discharge (million m ³)	0.18	0.19	0.24
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



Health & Safety^[11]	2023	2022	2021
Number of fatalities	0	0	0
Number of Lost Time Injuries	2	0	2
Lost Time Injury Frequency Rate (LTIFR) (per 200,000 employee-hours)	0.11	0	0.11
Number of days lost/charged (no. of employee-days) ^[12]	3	0	179
Lost Time Injury Severity Rate (LTISR) (per 200,000 employee-hours) ^[12]	0.17	0	10.06
Longest period without a Lost Time Injury (no. of days)	158	365	154
Number of reported traffic accidents (no. of cases)	6	3	10
Traffic Accident Frequency Rate (TAFR) (no. of cases per million km travelled)	3.6	1.8	5.9
Number of ISO 45001 certificates	3	3	3
Operations	2023	2022	2021
Customer Service			
Number of customers (thousands) ^[13]	589	586	584
Residential (thousands)	474	472	470
Commercial (thousands)	110	109	108
Industrial (thousands)	5	5	5
Average rating of customer satisfaction level (5-point scale)	4.7	4.7	4.7
Number of pledged service standards	18	18	18
Percentage achieved (%)	100	100	100
Installed Capacity			
Gas (MW) ^[1]	1,095	1,095	1,060
Coal & oil (MW) ^{[1][2]}	2,305	2,305	2,555
Renewable energy (MW) ^[14]	3.2	2.0	1.9
Plant Availability^[1]			
Total (%)	89.4	86.6	89.0
Gas (%)	88.2	88.7	89.0
Coal & oil (%) ^[2]	90.1	85.6	88.9
Thermal Efficiency^[1]			
Total (%)	39.3	38.9	37.6
Gas (%)	48.4	48.6	46.3
Coal & oil (%) ^[2]	31.7	31.8	31.9
Electricity Sent Out^[15]			
Total (GWh)	10,425	10,305	10,717
Gas (GWh) ^[1]	5,870	5,432	5,179
Coal & oil (GWh) ^{[1][2]}	4,544	4,865	5,532
Renewable energy (GWh)	10.7	8.5	5.8
Transmission and Distribution Losses^[16]			
Total (%)	3.7	3.5	3.3
Transmission losses (%)	1.2	1.2	1.2
Distribution losses (%)	2.5	2.3	2.1
Electricity Sold			
Electricity sold (millions of kWh)	10,040	9,941	10,361
Energy intensity (per electricity unit sold) ^[17]	1.64	1.66	1.75
Electricity Supply Reliability^[18]			
Supply reliability rating (%)	>99.999	>99.9999	>99.9999
Unplanned customer minutes lost (minutes)	3.4	0.3	0.3



Operations	2023	2022	2021
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

Notes:

- [1] For power generation only.
- [2] Fuel oil is mainly used for starting and flame stabilisation of coal-fired units and hence specific breakdown for fuel oil is not given.
- [3] Starting from 2023, mercury emissions are reported with reference to the SASB Standards for Electric Utilities and Power Generators.
- [4] HK Electric's direct (Scope 1) GHG emissions are mainly attributed to power generation. HK Electric runs a vertically integrated utility business. All the electricity consumed or lost is generated by ourselves and the associated indirect (Scope 2) GHG emissions are already covered in our direct (Scope 1) GHG emissions. Hence, our indirect (Scope 2) GHG emissions are reported as zero. Our indirect (Scope 3) GHG emissions refer to the indirect GHG emissions arising from our operations and activities, including those from transportation, products used, use of our products (i.e., our ash and gypsum by-products) and other sources (i.e., our town water demand). All GHG emissions figures are independently verified according to ISO 14064.
- [5] Integrated upstream Well-to-Tank (WTT) emission factors covering extraction, production and transportation are used in the quantification of Cat. 1-3 emissions and therefore Cat. 4 emissions are covered in Cat. 1-3 emissions.
- [6] HK Electric's GHG intensity refers to the total of direct (Scope 1) GHG emissions and indirect (Scope 2) GHG emissions per unit of electricity sold.
- [7] HK Electric's material non-hazardous waste streams are ash and gypsum generated from power generation and construction waste generated from major construction projects managed under the mandatory construction waste disposal charging scheme. All ash and gypsum generated were collected for industrial use, while all construction waste generated was reused, recycled or disposed of.
- [8] HK Electric's material hazardous waste streams are those required to be managed under the mandatory trip ticket systems. All these waste streams generated were collected by licensed waste collectors for recycle or disposal at licensed waste management facilities.
- [9] The increase in waste amount in 2023 was due to the demolition work for the old gas turbine units and commissioning work for the new gas-fired unit, L12, at LPS.
- [10] Town water is provided by the Water Supplies Department of the HKSAR Government. Please refer to Water Supplies Department's [website](#) for information about the source of water.
- [11] For our employees only. For our contractors' safety statistics, please refer to the [GRI Content Index](#).
- [12] For lost time injuries in which disability continued beyond the closing date (31 December) of a specific year, days lost of the year were estimated on the basis of medical opinion as to probable ultimate disability.
- [13] Almost all points of connection were of distribution type. The number of customers who are also producers i.e., customers who produce electricity to the grid, is insignificant as compared to the total number of customers.
- [14] The total installed capacity of RE includes the Lamma Winds, solar power system at LPS and other RE installations at HK Electric's premises in Hong Kong Island.
- [15] Electricity sent out refers to the electricity sent out from our grid, which includes those from our power plants and RE systems, as well as our customers' RE systems under the Feed-in-Tariff Scheme.
- [16] Non-technical losses are assumed to be insignificant.
- [17] The energy intensity refers to the energy consumed (excluding the electricity sold) by HK Electric, in the course of generation, transmission and distribution of electricity, per unit of electricity sold.
- [18] The supply reliability rating and unplanned customer minutes lost in 2023 would be >99.9999% and 0.3 minute if the power interruption incident on 19 April 2023, which is classified as a Major Event Day, is excluded as per international standards.
- [19] For our workforce data and other social data, please refer to the relevant chapters and the [GRI Content Index](#).
- [20] For economic/financial data, please refer to our [Annual Report](#).



Awards and Recognition

It is encouraging that our ongoing efforts have been widely recognised with various awards in the areas of quality, health and safety, environmental protection, community involvement, customer service, and corporate and staff achievements. For a full list of our awards in 2023, please refer to our [Annual Report](#).





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 2023 (“the Report”). The scope of HKQAA’s verification covers the data and information of HKEI’s sustainability performance for the period from 1st January 2023 to 31st December 2023. The Report conveys the information of HKEI’s commitment, strategies and progress towards sustainability to stakeholders.

The Report has been prepared in accordance with the Global Reporting Initiative’s (“GRI”) Sustainability Reporting Standards and GRI’s Electric Utilities Sector Disclosures, as well as Hong Kong Exchanges and Clearing Limited’s (“HKEX”) Environmental, Social and Governance (“ESG”) Reporting Guide. The Report has also been prepared in alignment with the recommendations from the Task Force on Climate-related Financial Disclosures (“TCFD”) and referencing the Sustainability Accounting Standards Board (“SASB”) Standards for Electric Utilities and Power Generators.

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 above-mentioned reporting scope and criteria.

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 of sustainability performance data. Also, the verification procedures 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 preparation of the Report. HKQAA was not involved in calculating, compiling, or in the development of the Report. Our verification activities are independent from HKEI.

Conclusion

Based on our verification results and in accordance with the verification procedures undertaken, it is the opinion of the verification team that:

- The Report has been prepared in accordance with the GRI’s Sustainability Reporting Standards and GRI’s Electric Utilities Sector Disclosures;
- The Report has complied with all mandatory disclosure requirements and “comply or explain” provisions outlined in HKEX’s ESG Reporting Guide;
- The Report is aligned with TCFD’s recommendations;
- The Report has been prepared with reference to the SASB Standards for Electric Utilities and Power Generators;
- The Report illustrates HKEI’s sustainability performance, covering all material aspects in a balanced, comparable, clear and timely manner; and
- The data and information disclosed in the Report are reliable and complete.

Signed on behalf of Hong Kong Quality Assurance Agency

Connie Sham
Head of Audit
March 2024



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:

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