

## Sustainability Report 2024



Driving Innovation for a Smart, Resilient and Sustainable Future



# Driving Innovation for a Smart, Resilient and Sustainable Future

The cover design of this report features a smart, sustainable cityscape and a battery "energised" with HKEI's efforts in various sustainability aspects. This represents HKEI's active role in providing a world-class power supply for Hong Kong and advancing sustainable development through innovation, resilience, care and excellence.





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# **Report Overview**

#### Scope and Boundary

This is the Sustainability Report 2024 for HK Electric Investments and HK Electric Investments Limited (collectively, "HKEI"). 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 in the period from 1 January to 31 December 2024, unless otherwise specified. We report our sustainability performance on an annual basis, including our approach to sustainability, key performance during the year, targets and future plans. This report is intended to be read alongside information from our other key reporting channels. Details about our policies and ongoing initiatives can be found on our corporate website www.hkei.hk. More information on our governance practices, financial performance, awards and recognition are available in our Annual Report.

#### **Basis of Reporting**

This report has been prepared in accordance with the Global Reporting Initiative's ("GRI") Sustainability Reporting Standards and Electric Utilities Sector Disclosures, as well as the Hong Kong Exchanges and Clearing Limited's ("HKEX") Environmental, Social and Governance ("ESG") Reporting Guide (the version effective from 31 December 2023, which remains applicable to annual reports for financial years commencing before 1 January 2025). Additionally, we have made reference to the Sustainability Accounting Standards Board ("SASB") Standards for Electric Utilities and Power Generators and HKEX's new ESG Reporting Code (effective from 1 January 2025) including the new climate-related disclosure requirements under Part D of the Code. A GRI Content Index, HKEX ESG Content Index, and SASB Content Index are available on our corporate website. These indexes cross-refer to relevant disclosures and provide additional information, if any, on specific disclosure items.

To ensure the quality and relevance of our report, we have applied the reporting principles outlined in the GRI's Sustainability Reporting Standards and HKEX's ESG Reporting Guide. These principles include "sustainability context", "materiality", "quantitative", "timeliness", "comparability", "balance", "consistency", "verifiability", "accuracy", "clarity" and "completeness". We have conducted a double-materiality assessment, as elaborated in the chapter on <u>Our</u> <u>Business and Approach to Sustainability</u>, to determine topics that should be included in this report. Our sustainability data are collected and analysed based on relevant guidelines and standards, such as the International Standard ISO 14064 and the Greenhouse Gas Protocol ("GHG Protocol") for greenhouse gas ("GHG") emissions data. We establish

sustainability targets for monitoring our performance over time. Our progress on the targets and major performance statistics in the latest three years are presented in the chapter on <u>Our Business and Approach to Sustainability</u> and the <u>Performance Data Summary</u>, respectively, for tracking and comparison. To provide a balanced view of our performance, we include both our achievements and areas for improvement, such as unmet targets and complaints received. We use consistent methodologies to enable meaningful comparisons over time and significant changes in methodology, if any, are indicated.

In this report, shareholders refer to holders of our Share Stapled Units, while suppliers denote business entities engaged in direct commercial relationships with us, including contractors. Our workforce primarily comprises full-time employees, with an insignificant portion of part-time and temporary staff. Employees of our contractors, with whom we do not have direct employment relationships, are not considered 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 video links, some of which are only available in Chinese.

#### Verification and Endorsement

In line with our commitment to promoting accountability and transparency regarding our sustainability impacts and performance, we have commissioned an independent third party to verify the contents of this report and to assure its credibility. Details about the verification can be found in the <u>Verification Statement</u>.

This report has been endorsed by the Sustainability Committee of our Board of Directors ("the Board") and approved by the Board. For details on how the Board oversees the sustainability strategy, management, performance and reporting of the Group (refers to HK Electric Investments Limited and its subsidiaries), please refer to the chapter on <u>Our Business and Approach to</u> <u>Sustainability</u>.

#### Feedback

Your are welcome to share your views on our sustainability performance and this report by completing the <u>feedback</u> <u>form</u> on our corporate website. Your valuable feedback will help us realise our vision for a sustainable future.



# **2024 Performance Highlights**

## **Environment & Awareness New gas-fired** 0.60 kg/kWh 40% unit L12 carbon intensity reduction in carbon emissions as compared to that in 2005 (CO<sub>2</sub>e per electricity unit sold) commissioned in March 68% >13 GWh >110,000 of electricity output of green electricity generated participants in generated from natural gas from renewable energy Happy Green Campaign installations of HK Electric and its Feed-in-Tariff customers Full compliance with ~1,000 stipulated emissions caps participants in a month-long campaign on for sulphur dioxide, nitrogen oxides World Environment Day and respirable suspended particulates for employees

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# **Customer & Community Care**

>99.9999%

supply reliability rating

All 18 pledged Customer Service Standards

#### met or surpassed

~15,000 learning opportunities provided for retirees through University of 3<sup>rd</sup> Age Network

**4.8** average customer satisfaction rating on a 5-point scale

>11,000

households subsidised under

Smart Power Care Fund

#### smart meters deployed since 2020

>480,000

yed 2020

> **216** free Smart Power Energy Audits

of subsidies

Smart Power

**Building Fund** 

approved under

~\$45 million



# **Employee Care & Safety**

**3** Lost Time Injuries

**2.28** Lost Time Injury Severity Rate

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**0.17** Lost Time Injury Frequency Rate **4,565** number of safety risk assessments

**2,763** number of safety inspections **38 hours** of training per employee on average

**7.0%** employee voluntary turnover rate (including retirement)

# A Word from our CEO

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HKEI is advancing its energy transition in a responsible and orderly way, aiming for net-zero electricity generation before 2050. As we close the chapter on 2024, I am delighted to present the Sustainability Report of HKEI for the year, which encapsulates our vision for a sustainable future.

#### Advancing our Energy Transition

The 29<sup>th</sup> United Nations Climate Change Conference ("COP29") reinforced the urgency of reducing reliance on fossil fuels and accelerating adoption of clean energy. As the impacts of climate change continue to unfold globally, HKEI remains committed to providing a safe, reliable, clean and affordable electricity supply for its customers. To combat climate change, we are navigating the transition from coal-fired generation to adopting clean energy in a responsible and orderly way, aiming for net-zero electricity generation before 2050.

This energy transition is at the core of our strategy. In 2024, we achieved a significant milestone by reducing carbon emissions by 40% comparing to the 2005 level. This progress was mainly driven by the advancement of the coal-to-gas transition in our fuel mix, increasing the share of electricity generated from natural gas to 68%, up from 56% in 2023. A key part of this achievement was the completion of the project to construct three new gas-fired generating units under the 2019-2023 Development Plan, alongside the retirement of two more coal-fired generating units due for replacement.

Looking ahead, by 2035, all our remaining coal-fired generating units would cease operation for daily electricity generation and would be replaced by cleaner and more efficient technologies. Our planned commissioning of another new gas-fired generating unit by 2029 will further increase our gas-fired generation ratio, contributing towards Hong Kong's target of a 50% reduction in carbon emissions by 2035, against a 2005 baseline.

To achieve net-zero electricity generation in the long term, we are exploring alternative fuels such as hydrogen. With appropriate modifications, as has been proven by



some pilot projects in other areas, we expect our gas-fired generating units to be capable of utilising both natural gas and hydrogen in the future, positioning green hydrogen as viable zero-carbon energy in Hong Kong.

Our efforts to decarbonise our power generation are also accompanied by the potential to import zero-carbon energy, such as renewable energy and nuclear power, from the Mainland. We are collaborating with the Government and other strategic partners to drive this regional cooperation forwards. To this end, we fully support feasibility studies for necessary infrastructure development, including the construction of new electricity facilities for power receiving and conversion.

On the other hand, we will continue to facilitate the local development of distributed renewable resources through the Feed-in Tariff Scheme and offer Renewable Energy Certificates for purchase by our customers.



# Driving Innovation for a Resilient Future

The reliability of our electricity supply is fundamental to our operations. We continue to enhance the resilience of our power infrastructure to ensure supply reliability, learning from past experiences and preparing for future challenges including climate-related risks. I am glad to share that our supply reliability rating in 2024 once again exceeded 99.9999%, which translates to less than 0.5 minutes of unplanned power interruption on average per customer. This achievement highlights our unwavering commitment to excellence and delivering reliable energy to the communities we serve.



With more frequent adverse or extreme weather events brought by climate change, we have implemented robust measures to strengthen our power infrastructure against storms, overtopping waves, flooding and strong winds, covering our generation, transmission and distribution facilities. Additionally, surveillance systems and contingency plans are in place to ensure prompt and effective responses during emergencies.

We also utilise technologies to enhance the reliability of our power systems. Notable examples include two patented technologies we have self-developed for the identification of faulty low-voltage cables and continuous monitoring of switchgear performance, respectively. To ensure the reliability of power generation during the energy transition, we have taken a thoughtful approach to extending the operational life of the two latest existing coal-fired generating units by replacing critical components, allowing them to remain dispatchable up to the 2030s before being replaced by cleaner energy sources. Simultaneously, we are decommissioning the ageing oilfired open-cycle gas-turbine generating units ("OCGTs") and constructing three new OCGTs to cater for highdemand periods and emergencies.

#### Empowering Elderly and Supporting Underserved Communities

Beyond delivering sustainable energy, we remain dedicated to building an inclusive and supportive society. Community care is one of the focus areas of our Smart Power Services. We support those in need through various initiatives under the Smart Power Care Fund, such as distributing cash coupons to underprivileged families, subsidising sub-divided units ("SDUs") for the installation of tariff meters and providing tariff subsidies to needy SDUs.

As Hong Kong's ageing population continues to grow, we are committed to supporting this treasured part of our community. During the year, in line with the United Nations' "2021-2030 Decade of Healthy Ageing" advocacy, we launched a new "U3A Dream+" scheme with the Hong Kong Council of Social Service to provide project funding for retirees to pursue their aspirations, leveraging their capabilities to sustain their contributions to society. Meanwhile, our "CAREnJOY for the Elderly" programme continues to address practical and emotional needs of single elders, promoting well-being and a sense of community.

# Nurturing an Innovative Workforce for the Power Industry

Our success, now and in the future, relies on our dedicated and innovative pool of talent. We believe it is imperative to support and provide for our workforce and to nurture broader talent development in the power industry.

To empower our employees to excel in their roles, we continue to provide them with comprehensive development opportunities and competitive remuneration packages, while respecting their rights and taking care of their well-being, as well as encouraging and supporting them to innovate. We also offer scholarships and internship opportunities to students, inspiring them to pursue careers in engineering and the power industry.

Ensuring the health and safety of our workforce remains our top priority. The number of Lost Time Injuries among our employees has remained consistently low in recent years, with three accidents, which were all relatively minor ones, recorded in 2024. We take each accidents seriously and have conducted thorough investigations and implemented improvement and preventive measures.



#### Shaping Sustainability Priorities for Enhanced Value

At HKEI, we recognise the interconnected nature of sustainability with our business – while business operations impact society and the environment, sustainability issues also influence enterprise value. In 2024, we conducted a double-materiality assessment to identify sustainability issues material to the environment and society, as well as our business. This helps us strengthen our sustainability strategy and disclosures, reinforcing our commitment to accountability and transparency.

We have also enhanced our climate-related disclosures with reference to the new ESG Reporting Code of HKEX, which is developed based on international disclosure standards, providing insights into the effects of climate change on our business. Our Development Plan, which lays out capital investment for major projects over a five-year period, supports emissions reduction and strengthens climate resilience. This strategic approach enables us to transform climate-related risks into opportunities that benefit both our business and the wider community.

# Moving forwards to a Sustainable Future

Reflecting on the progress we have achieved in 2024, I deeply appreciate the trust, confidence and support extended by the Board, my colleagues and other stakeholders in getting us this far. While confident in the robust foundation and strategic roadmap we have established, we remain mindful of the challenges that lie ahead and will continue to collaborate with our stakeholders towards achieving a resilient and sustainable future.

Thank you for your continued support.

Francis Cheng Chief Executive Officer March 2025

# **Our Business and Approach to Sustainability**

## **HKEI in Brief**

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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 our 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 593,000 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 its 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.



## **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.



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

Total: 7,047 km

## **Sustainability Governance**

HKEI is committed to operating 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 sound corporate governance and high ethical standards.

Our Sustainability Framework supports the consistent integration of sustainability practices, aligning with our Sustainability Policy and other key corporate policies and business priorities. The framework includes 15 focus areas, addressing the most material topics for HKEI and its stakeholders. These focus areas are organised into four strategic directions that reflect the nature of our business, with clear connections to the United Nations' Sustainable Development Goals (SDGs). The Framework enables us to convert our values and commitments into actionable and measurable targets, ensuring consistent monitoring and evaluation of our performance and effective communication with our stakeholders.

HKEI has set sustainability targets for the Group with reference to the United Nations' 2030 Agenda for Sustainable Development and the associated SDGs, of which the progress is reviewed and reported on an annual basis. For further details on the sustainability targets established, please refer to the <u>Sustainable Development</u> <u>Goals and Targets</u> section. Our commitment to sustainability is integrated throughout our organisation, with clear accountability at every level:

- The Board holds overall responsibility for the Group's sustainability strategy, management, performance and reporting.
- The Board has delegated specific oversight to the Sustainability Committee, which is responsible for overseeing the development and implementation of sustainability initiatives. This includes reviewing relevant policies and practices, as well as evaluating sustainability risks and opportunities. The Sustainability Committee also advises the Board on matters related to public communication and disclosures as regard to the Group's sustainability performance, such as the annual Sustainability Report. In 2024, the Sustainability Committee held two meetings. The committee's Terms of Reference can be found on our corporate website.
- At the management level, the Sustainability Management Committee supports the Sustainability Committee in executing its responsibilities. The Sustainability Management Committee, chaired by the Chief Executive Officer, meets quarterly to drive and coordinate the Group's sustainability efforts and foster a deeper understanding of sustainability throughout the organisation.

In 2024, the following issues were discussed at the Sustainability Management Committee meetings and reported to the Sustainability Committee:



As part of our commitment to continuous improvement, we actively participate in both local and global benchmarking initiatives, including the MSCI ESG Rating, S&P ESG Rating and Morningstar Sustainalytics ESG Risk Rating. As a result of these efforts, HKEI is featured in the product repository of the Sustainable & Green Exchange (STAGE) established by HKEX.

#### SUSTAINABILITY GOVERNANCE STRUCTURE

#### The Board

Accountability and Leadership

## Sustainability Committee

Governance and Oversight

#### Sustainability Management Committee

(Management Level) Strategy, Management and Monitoring

#### **Business Units**

Implementation and Reporting

Stakeholder Sustainable Engagement and Materiality Assessment

#### Development Goals and Targets

#### SUSTAINABILITY FRAMEWORK

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

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



#### Supporting the United Nations' Sustainable Development Goals, specifically:

#### Goal 7



Affordable and Clean Energy

#### Goal 11



Sustainable Cities and Communities



Goal 8

8 DECENT WORK AND

Decent Work and Economic Growth



#### Goal 9



Industry, Innovation and Infrastructure

Goal 13



Climate Action

## **Stakeholder Engagement and Materiality Assessment**

#### Stakeholder Engagement

At HKEI, we are committed to fostering open and effective communication with our stakeholders, guided by our Media, Stakeholder Engagement and Community Investment Policy. Our engagement efforts focus on individuals and groups who are impacted by or hold influence over our operations and value chain. Through a structured and transparent stakeholder engagement process, we aim to address concerns and expectations related to the environmental, social and economic impacts of our operations, supporting the sustainable development of our business and society. To ensure the effectiveness of our engagement efforts, the Sustainability Management Committee reviews our approach on a biannual basis. In addition, we have a digital stakeholder engagement platform that enables business units to plan, record and evaluate their engagement activities. This platform ensures a systematic approach to capturing stakeholder insights.



Stakeholder groups	Why their views are important to HKEI	Usual er cha	igagem innels	nent
Customers	Electricity is an essential part of their daily life, and understanding their needs helps us meet or exceed their expectations.	126	4	6
Shareholders and Investors	We are accountable for safeguarding their interests and ensuring sustainable returns.	10	44	6
Employees	We are committed to their well-being, and their contributions are vital to our business success.	126	4	6
Suppliers and business partners	Shared sustainable values and collaboration are essential for fostering long-term relationships.	126	4	6
Local communities	We are committed to supporting the city's sustainable development and helping those in need.	126	4	6
Green groups and social NGOs	They are key partners in driving environmental conservation and sustainable community development.	126	4	6
Education sector	Promoting green education, especially among young people, helps build a sustainable future.	126	4	6
Engineering sector and professional institutions	They are key industry partners who contribute to innovation and technical excellence.	••	4€	6
Media	They are effective channels for communicating with the public.	•		6
Authorities and legislators	Their regulatory oversight ensures compliance and accountability in our utility operations.	12	4	6

Stakeholders' suggestions in 2024	HKEI's responses
Accelerate the shift to RE by reducing reliance on coal and exploring solar and wind power opportunities. Invest in R&D on hydrogen energy and explore innovative clean energy solutions.	HKEI aims for net-zero electricity generation before 2050. We are increasing gas-fired generation and plan to cease using coal for daily electricity generation by 2035. With appropriate modifications, we expect our gas-fired generating units could utilise both natural gas and hydrogen in the future. Moreover, we are exploring with the Government and other strategic partners on the potential to import zero- carbon energy from the Mainland. We will also continue to facilitate the local development of RE through the Feed-in Tariff Scheme and provide Renewable Energy Certificates for purchase by our customers.
Upgrade electricity infrastructure to meet local demands and ensure supply reliability. Strengthen emergency response protocols to address adverse or extreme weather events due to climate change.	HKEI is committed to delivering a world-class electricity supply to support the economic and social development of Hong Kong. We will continue to enhance our power infrastructure to ensure supply capacity and reliability. We have implemented robust measures to strengthen our power infrastructure against adverse or extreme weather events. Additionally, surveillance systems and contingency plans are in place to ensure prompt and effective responses during emergencies. More details can be found in this report.
Develop educational programmes on sustainability and community programmes for the elderly and retirees, tailored to Hong Kong's ageing population.	HKEI acknowledges the growing needs of elderly due to the ageing population in Hong Kong. We have been collaborating with different NGOs to organise or sponsor them to organise a wide variety of programmes, under our "CAREnJOY for the Elderly" programme and "University of 3 <sup>rd</sup> Age" network to support the elders in need and promote lifelong learning.
Address investors' investment constraints due to ESG criteria and fossil fuel reliance. Keep engaging with investors to discuss sustainability strategies.	HKEI is fully committed to sustainable development and is progressing on its energy transition in a responsible and consistent manner. We acknowledge that investors have diverse expectations regarding our sustainability and decarbonisation strategies and will continue to maintain a close dialogue with them through various channels.

## **2024 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 the Customer Liaison Group and updating group members on company development through meetings and company visits			
	> After-service surveys to gauge customer satisfaction			
	<ul> <li>Customer newsletter "HK Electric Online" and video communication "KR 44 TV"</li> <li>KR 44 TV</li> </ul>			
	> Annual General Meeting with shareholders			
	> Updating shareholders on our business operations through company visits			
Shareholders and investors	> 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			
	<ul> <li>"Dialogue with Francis (CEO)" employee communication forum, Joint Consultation meetings and focus group meetings to exchange views and ideas with our employees</li> </ul>			

> Theme talk on ESG to enhance employees' awareness of the latest ESG trends and practices



Employees, suppliers and business partners

- > "Hear Your Voice" communication channel to connect our young professionals with senior executives and foster open dialogue
- > Employee Well-being Survey to understand our employees' level of happiness and work stress, state of work-life balance and workplace engagement
- > Performance management system to provide feedback and coaching to employees on their performance and development
- > Targeted initiatives and awareness campaigns to promote physical and psychosocial wellbeing among our employees and contractors and help them stay safe and healthy
- Sustainable Procurement Survey to understand suppliers' progress in implementing relevant sustainable procurement practices

Stakeholder groups	Activities
	Exchanging views with community members and updating them on company development through meetings and company visits
	Various educational activities under the Happy Green Campaign themed "Be Chill. Be Carbor Neutral" to enhance environmental awareness among the public, particularly young people
Local communities, green groups, social NGOs and education sector	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 3 <sup>rd</sup> Age" network
	Participation in career fairs to foster awareness of career prospects with HK Electric among university students
	> Participation in knowledge and experience sharing activities with professional bodies
Engineering sector and professional	Collaboration in the "Belt and Road Advanced Programme in Power and Energy" to nurture senior-level talent in the energy industry
institutions	Participation in meetings and forum of the Joint Utilities Safety and Occupational Health Policy Group to discuss safety issues and benchmark safety practices
	Press releases, interviews and social media posts to keep media informed on corporate initiatives
	安全の第一



Media

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- Updating legislators and government officials on company development through meetings and company visits
- Working closely with relevant authorities to ensure proper implementation and transparency of the SCA, as well as 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



Authorities and legislators

## **Materiality Assessment**

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. Building upon the work and results from the 2023 materiality assessment, we enhanced the robustness of the 2024 assessment by engaging stakeholders in more detailed discussions regarding impact materiality and financial materiality. This double-materiality approach provides us with further insights to comprehend the materiality level of sustainability topics relevant to HKEI, by examining the associated positive and negative impacts, as well as risks and opportunities.

#### 2024 MATERIALITY ASSESSMENT PROCESS

## Step 1

#### IDENTIFY

- In 2024, we identified 24 material topics after reviewing and analysing relevant materials, considering their relevance to our business model and value chain.
- Reference has been made to the 2023 materiality assessment results, global megatrends, statutory and nonstatutory requirements, industry peer review, sustainability reporting standards and ESG rating criteria, as well as relevant impacts, risk and opportunities. Updates on our corporate strategy, policies and practices have also ben considered.

Step 2

#### PRIORITISE

- For the double-materiality concept was implemented throughout the exercise. Both internal and external stakeholders were asked to rate, on a 5-point scale, the significance of the material topics identified from Step 1 based on the associated positive and negative impacts, as well as risks and opportunities, from the perspectives of impact materiality and financial materiality.
- Opinions from various stakeholders including investors, shareholders, employees, customers, suppliers, the engineering sector, green groups, social NGOs, the education sector and local communities, as well as representatives from our business units, were gathered through focus group discussions and surveys.

# Step 3

#### VALIDATE

The results of the materiality assessment were reviewed by the Sustainability Management Committee and formally endorsed by the Sustainability Committee upon completion. The results have been duly considered in the preparation of this report and will be integrated in the Group's sustainability strategies, objectives and targets.

Sustainable Development Goals and Targets

#### **HKEI's 2024 DOUBLE MATERIALITY MATRIX**

The materiality matrix below summarises the relative importance of the 24 material topics according to their significance for HKEI and its stakeholders from the perspectives of impact materiality and financial materiality. The numbers in brackets against each material topic reference the relevant material areas in our Sustainability Framework.



#### **Financial Materiality**

#### **Running a Sustainable Business**

- 1 Upholding business ethics (1.2)
- 2 Bolstering contingency preparedness (1.2, 4.3)
- B Ensuring effective corporate governance (1.2, 1.3)
- 4 Enhancing economic performance (1.1)
- 5 Engaging with stakeholders to advance sustainability (1.4)
- 6 Fostering innovation to drive sustainability (1.5)
- Strengthening climate resilience and adaptation strategies (1.3)
- 8 Leveraging sustainable finance mechanism (1.1)

## Serving Hong Kong

- (5) Ensuring supply reliability and asset integrity (3.1)
- 6 Facilitating access to electricity and promoting affordability (3.1)
- Safeguarding customer privacy, health and service quality (3.2, 4.3)
- 18 Promoting community relations and investments (2.3, 3.3)
- Strengthening cybersecurity (3.1, 3.2)

#### **Sharing our Planet**

- 9 Combatting climate change (1.3, 2.1)
- Enhancing energy efficiency (2.2, 3.2)
- 1 Implementing sustainable water management (2.2)
- Advancing circular economy through waste management (2.2)
- Conserving biodiversity (2.2)
- Promoting low-carbon behaviour (2.3)

#### Working with Partners

- 20 Prioritising occupational health and safety (4.3)
- 2 Managing human capital effectively (1.2, 4.1, 4.2)
- Establishing a sustainable supply chain (1.2, 4.1, 4.4)
- <sup>23</sup> Upholding and managing human rights (1.2, 4.1)
- Promoting diversity, equity and inclusion (1.2, 4.1)

## 2024 Materiality Assessment Outcomes

Materiality level: Low Medium

High

## RUNNING A SUSTAINABLE BUSINESS

		Impact Materiality			Financial Materiality	Double Materiality
Material  Relevant S		Positive and Negative Impacts	Alignment with UNSDGs (for positive impacts only)	lmpact Materiality Level	Financial Materiality Level	Double Materiality Level
1 Upho busin	lding ess ethics	Promote integrity among employees, suppliers, contractors and other business partners, and gain trust from key stakeholders, such as investors and customers.	8 december 2011 10 million - 10 million - 1			
Busine	ess Ethics htegrity	Affect the way employees, suppliers, contractors and other business partners do their job and reduce public trust in the company in terms of the fairness and integrity of businesses, if failing to maintain a high standard of ethics.	-			
	ngency	Minimise disruption to the local economy and communities due to critical events through effective contingency planning.	7 constanting Constanting 13 cm Constanting 13 cm Constanting Co			
preparedness  Risk Management	May result in catastrophic consequences for workers, local communities and the environment, if failing to respond promptly and effectively to critical incidents.	-				
3 Ensur effect corpo	tive prate	Provide directions for the Group to achieve its goals and control the identified risks, which helps create and safeguard long-term shareholder value and benefits other stakeholders, society and the environment.	8 converses initial for the second se			
governance  Corporate Governance	Heighten exposure to legal, regulatory and reputational risks, which in turn impacts shareholder value and sustainability of the company's business, if effective governance is not in place.	-		-		
4 Enhai econo perfo		Achieve economic, social and environmental enhancement through proper business planning and development that ensures a reliable and affordable power supply.				
Sustainable Long-term Growth	May impose economic, social and environmental burden on the local communities, if failing to sustain and improve the Group's economic performance.	_		_		

## RUNNING A SUSTAINABLE BUSINESS

		Impact Materiality			Financial Materiality	Double Materiality
	terial Topics —– evant Section	Positive and Negative Impacts	Alignment with UNSDGs (for positive impacts only)	Impact Materiality Level	Financial Materiality Level	Double Materiality Level
1	Engaging with stakeholders to advance sustainability	⊕ Facilitate sustainable development of society and increase public awareness of sustainability by building mutual understanding and trust with stakeholders and addressing their expectations through different types of engagement activities.				
l	Stakeholder Engagement and Materiality Assessment	Cannot promote ownership from stakeholders and gain their support towards sustainable development, if failing to communicate with them effectively and get them involved appropriately.	-		-	
i 1	Fostering innovation to drive	⊕ Support transformation of the energy industry for a low-carbon economy and other outcomes that benefit the sustainable development of society through ongoing commitment to innovation and collaboration with stakeholders.	7 сонступний         9 сонструкций           2000         2000           13 лист         2000           13 лист         2000           13 лист         2000			
sustainability  Innovation	Impede the advancement of low-carbon transition and the realisation of 2050 carbon neutrality goal, if failing to implement relevant innovation and digital transformation projects.	-		-		
(	Strengthening climate resilience and	Reduce damages to infrastructure, and associated economic disruptions and potential losses of lives and properties, by enhancing preparedness for climate-related impacts.	9 merenenen Series 13 sere Series			
-	adaptation strategies  Climate-related Disclosures	Lead to increased vulnerability to extreme weather events, resulting in more frequent and severe damages to infrastructure, and associated economic disruptions and threats to lives and properties, if failing to strengthen climate resilience and adaptation strategies.	-			
1	Leveraging sustainable	⊕ Help identify and manage positive and negative impacts on society and the environment associated with investment activities through the integration of sustainability considerations into financial decision-making process.	Bunneren Bunner		_	
-	finance mechanism Sustainable Long-term	Channel capital towards environmentally friendly and socially responsible projects and initiatives, contributing to mitigating climate change and promoting sustainable development.	-			
(	Growth	May cause economic challenges or job losses in certain traditional industries that may not meet sustainability criteria, if redirecting capital from these industries.	-			

## SHARING OUR PLANET

	Impact Materiality		Financial Materiality	Double Materiality
Material Topics	Positive and Negative Impacts	Alignment with UNSDGs (for positive impacts only) Impact Materiality Level	Financial Materiality Level	Double Materiality Level
	↔ Help alleviate climate change and in turn benefit the whole society, by reducing greenhouse gas emissions through increasing gas-fired generation, phasing out coal-fired generation and supporting zero-carbon energy applications such as RE.			
9 Combatting climate change	Boost economic activities and facilitate new employment opportunities and skills development throughout the course of low-carbon transition.			
Climate Action and Clean Air	Pose potential impacts on workers and local communities, e.g., due to closure of coal-related facilities for the transition to a low-carbon economy, if there are inadequate provisions for a just transition.	-		
	Lead to air pollution and anthropogenic climate change, which affects all of society and causes negative impacts on the health, livelihoods and human rights of millions of people, if continuing to rely on coal-fired power generation	-		
10 Enhancing energy efficiency	Can achieve significant reductions in energy costs and carbon emissions, benefiting the environment, by effectively monitoring and controlling efficiency, and conserving energy.			
Climate Action and Clean Air, Smart Power Services	Implementation of energy saving measures may cause inconvenience or stress to employees, if no adequate assistance and training is provided for employees to adapt to the new processes.	-		
11 Implementing sustainable water management	Lead to more sustainable operations by adopting stringent water management practices to reduce water consumption and enhance water recycling.			
Responsible Environmental Management	Inadequate water management practices may elevate water stress, degrade water quality and affect the marine environment.	-		
12 Advancing circular economy through waste management	← Can lead to significant improvements in resource efficiency by adopting circular economy practices and waste reduction at source to reduce reliance on raw materials and minimise waste.			
Responsible Environmental Management	Ineffective waste management and circular economy practices could result in increased pollution and resource depletion, exacerbating waste problems.	-		
13 Conserving biodiversity	↔ Conserve local biodiversity and ensure our operations do not impose insurmountable impacts on ecological resources.			
Responsible Environmental Management	Inadequate conservation efforts may endanger protected species and critical natural habitats, leading to ecosystem imbalances and biodiversity loss.	-		
14 Promoting low-carbon behaviour	Achieve larger reduction in greenhouse gas emissions through driving collective efforts in decarbonisation.	4 dente 10 dente 10 dente Constantino 10 dente 10 d		
Education and Awareness	May result in pushback from the community for the initial costs of certain decarbonisation initiatives, if no adequate support is provided for relevant stakeholders.	-		

## SERVING HONG KONG

	Impact Materiality			Financial Materiality	Double Materiality
Material Topics	Positive and Negative Impacts	Alignment with UNSDGs (for positive impacts only)	lmpact Materiality Level	Financial Materiality Level	Double Materiality Level
15 Ensuring supply reliability and asset integrity	Help support the societal and economic development of local communities by delivering a reliable and secure power supply.	7 ваниет Законски Самента В ментостики В ментостики С			
World-class Power Supply	Unreliable or unsafe power supply will affect community and cause disruptions to the societal and economic functioning.	-			
16 Facilitating access to electricity and promoting affordability	Ensure that even low-income or vulnerable households can enjoy reliable and affordable electricity.	7 инжение журование со журование со журование со журование со журование со журование со журование со журование со журование со со со со со со со со со со со со со			
World-class Power Supply, Smart Power Services	Increase the number of households living under the energy poverty line, if failing to ensure accessible and affordable electricity for those in need.	_			
17 Safeguarding customer privacy, health and	Enhance customer experience and satisfaction by delivering high-quality services and providing efficient personal data protection.				
service quality  Serving our Customers	May lead to bad customer experience and leakage or misuse of personal data or unauthorised access to such data, if no suitable policies and initiatives are in place.	-			
18 Promoting community relations and	Encourage and promote effective public, public- private and civil society partnerships, in building an inclusive and sustainable community.	10 EXCEPTION TO A CONTRACT OF THE CONTRACT.			
Investments Smart Power Services, Caring for the Community	Lack of collaboration between utilities and local communities may give rise to dissatisfaction of community members and is not desirable in the building of a harmonious community.	_			
19 Strengthening cybersecurity	Protect sensitive customer data and critical infrastructure from digital threats, thereby avoiding associated inconvenience to consumers and disruptions to electricity supply service.				
World-class Power Supply	Lack of cybersecurity measures may lead to data breaches, exposing sensitive information and disrupting essential services.	_		_	

## WORKING WITH PARTNERS

	Impact Materiality			Financial Materiality	Double Materiality
Material Topics	Positive and Negative Impacts	Alignment with UNSDGs (for positive impacts only)	lmpact Materiality Level	Financial Materiality Level	Double Materiality Level
20 Prioritising occupational health and safety	Promote greater hazard awareness and change the way people approach risk, prevent illness and promote healthy lifestyles, and hence provide lasting benefits for the workforce, their families and the general public.	Sametican 			
Health & Safety	Increase the risk of work-related illness, injury and death, if failing to implement appropriate health and safety procedures.	_		-	
21 Managing human capital effectively	Promote sustained and inclusive economic growth and facilitate the creation of personal, social and economic well-being through providing stable and decent jobs and expanding the knowledge and skills of colleagues.	4 auru ↓↓↓ ↓↓↓			
Human Capital Management and Development	Ineffective human capital management not only leads to fewer decent job opportunities but also imposes negative impacts on our operations and hence service quality.	_		-	
22 Establishing a sustainable supply chain	Promote social and environmental responsibility throughout the supply chain, benefiting the sustainable development of the whole society.	8 Extra entra entr			
Responsible Supply Chain Management	Increase negative social and environmental impacts, if suppliers fail to adopt adequate management policies and practices.	-			
23 Upholding and managing human rights	Promote proper management of human rights issues throughout operations and supply chain, helping ensure that the human rights of individuals involved are being respected.	10 menu C			
Respecting Human Rights	May result in infringement of human rights, if failing to effectively manage human rights issues.	_		-	
24 Promoting diversity, equity and	Enhance organisational performance and hence contributions to society, by bringing a wide array of skills, experiences and perspectives.	5 Martin Barton and Aller And Aller			
inclusion  Respecting Human Rights	Neglecting workplace diversity, equity and inclusion may limit the ability to innovate for sustainability, as well as result in negative company image.	-			

## **Sustainable Development Goals and Targets**

HKEI is committed to advancing the United Nations' 2030 Agenda for Sustainable Development and its 17 SDGs, which aim to end poverty, protect the planet and ensure peace and prosperity for everyone by 2030. We continue to align our sustainability efforts with these SDGs, striving to extend our impact and make meaningful contributions across our entire value chain.

We have established targets to gauge our progress towards helping achieve these SDGs and report

## **Progress on Sustainability Targets**

#### **Running A Sustainable Business**

annually on our performance against these targets. We particularly focus on the following six SDGs, which closely align with our corporate strategies and business priorities.

- **•** Goal 7: Affordable and Clean Energy
- **4** Goal 8: Decent Work and Economic Growth
- **•** Goal 9: Industry, Innovation, and Infrastructure
- Goal 11: Sustainable Cities and Communities
- **4** Goal 12: Responsible Consumption and Production

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4 Goal 13: Climate Action

Sustainability Targets	Progress in 2024	Alignment with UNSDGs
<ul> <li>Enhance asset integrity in the face of climate change: *</li> <li>Complete a retro-commissioning project for one office building at LPS to optimise use of energy by 2025</li> <li>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: <ul> <li>Phase I: Complete retrofitting work for substations situated within 100 m of coastline by 2024</li> <li>Phase II: Complete retrofitting work for substations situated outside 100 m of coastline by Q2 2026.</li> </ul> </li> </ul>	In Progress The retro-commissioning project for the Fire & Security Building is scheduled to be completed by 2025. The programme of Phase I of the retrofitting work for substations was adjusted and had been completed in Q1 2025.	7 mmm 2000 10 mm 10
<ul> <li>Encourage innovation and use of new technology for enhancing productivity and operational effectiveness: *</li> <li>Continue to introduce innovative problem-solving tools and technology updates to employees through in-house training and sharing sessions</li> <li>Continue to introduce innovative initiatives to enhance productivity and operational effectiveness.</li> </ul>	Achieved	8:marrier M
<ul> <li>Engage business partners &amp; targeted stakeholders on smart zero-carbon caring city &amp; sustainability: *</li> <li>Arrange 100 engagement activities such as workshops and seminars during the period from 2024 to 2028.</li> </ul>	In Progress In Progress 11 engagement activities were arranged 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	Achieved	16 riss, and a more an
Engage 55,000 fans via our corporate and campaign Facebook pages in 2024 *	Achieved	13 control 17 for the control of the
Engage 58,000 fans via our corporate and campaign Facebook pages in 2025 *	Extended Target	13 source 17 references

Notes:

 <sup>\*</sup> Targets for the six particularly focused SDGs, which closely align with our corporate strategies and business priorities, including SDG 7, 8, 9, 11, 12 and 13.

#### **Sharing Our Planet**

Sustainability Targets		Progress in 2024	Alignment with UNSDG
Replace coal-fired units with gas-fired units to reduce		> In Progress	
<ul> <li>carbon emissions: *</li> <li>Commission a new gas-fired unit, L13, in early 2029.</li> </ul>	Climate-Related	The foundation work for the construction of the gas-fired unit, L13 is on schedule.	7 subset (13 cm) (15 cm) (1
Increase the use of RE: *		In Progress	
Increase aggregate electricity generated from RE sources of HK Electric and its customers to over 15 GWh/year by 2028.	Climate-Related	Aggregate electricity generated from RE sources was over 13 GWh in 2024.	7 Statement of 13 state
		In Progress	
<ul> <li>Reduce carbon emissions per electricity unit sold: *</li> <li>Ensure yearly average emissions do not exceed 0.5 kg of CO<sub>2</sub>e per kWh by 2029.</li> </ul>	Climate-Related	The yearly average carbon emissions per electricity unit sold was 0.60 kg of CO <sub>2</sub> e per kWh in 2024.	13 and the second
<ul> <li>Reduce emissions of air pollutants from power generation: *</li> <li>Control yearly emissions of sulphur dioxide, nitrogen oxides suspended particulates to within the emission caps stipulate Technical Memorandum under the Air Pollution Control Ord</li> </ul>	ed in the relevant	Achieved	
Concerne natural recourses 9 reduce waste concrations *		In Progress	
<ul> <li>Conserve natural resources &amp; reduce waste generation: *</li> <li>Reduce total electricity consumption, water consumption, p and waste generation of key office premises including Hong Electric Tower, Electric Centre and seven main buildings at I and 10% respectively in 2025 as compared to that in 2020</li> <li>Collect 5,000 kg of used lead-acid batteries for recycling by year during the period from 2024 to 2028.</li> </ul>	gkong Electric Centre, LPS by 5%, 1%, 10%	We are closely monitoring the total electricity consumption, water consumption, paper consumption and waste generation of our key office premises. Over 8,500 kg of lead-acid batteries were collected for recycling by local recyclers in 2024.	7 enternador Terrestario Terr
Minimise the impact on marine ecology arising from use of seav	water for cooling		12 /00/98/01 (000/04/19) (000/04/19)
generating units: * > Commission a fish deterrent system at No. 5 CW Intake (for		Achieved	

- Notes:
- \* Targets for the six particularly focused SDGs, which closely align with our corporate strategies and business priorities, including SDG 7, 8, 9, 11, 12 and 13.

Sustainability Targets	Progress in 2024	Alignment with UNSDGs
Support the wider use of electric vehicles (EVs) to reduce carbon emissions and improve local air quality: *		
<ul> <li>Increase the proportion of EVs in the corporate fleet to 55% by 2025.</li> </ul>	The proportion of EVs in the corporate fleet increased to 56% in 2024.	
Engage the public on combatting climate change and adopting low-carbon lifestyles: *	> In Progress	
<ul> <li>Organise 1,600 education and promotion activities during the period from 2024 to 2028.</li> </ul>	More than 800 education and promotion activities were organised in 2024.	4 see 13 sere
<ul> <li>Mid-term carbon intensity target aligns with Paris Agreement and was validated and approved by the Science Based Target initiative (SBTi) in 2022<sup>[1]</sup>: *</li> <li>Reduce Scope 1 GHG emissions by 68.4% per kWh of electricity generated by 2035 as compared to that in 2019.</li> </ul>	> In Progress	13 IIII
Collect at least 80,000 m <sup>3</sup> of plant effluent and rainwater for reuse at LPS in 2024	Achieved	6 сламована нас очитатана С
Collect at least 80,000 m <sup>3</sup> of plant effluent and rainwater for reuse at LPS in 2025	Extended Target	6 and version
Plant at least one more species of native trees or shrubs at LPS in 2024 to support biodiversity	Achieved	15 mux
Plant at least one more species of native trees or shrubs at LPS in 2025 to support biodiversity	Extended Target	15 <sup>III</sup> STUDE
Reduce food waste at the canteen of LPS in 2024 as compared to that in 2023 $\star$	Achieved	12 REFERENCE
Reduce food waste at the canteen of LPS in 2025 as compared to that in 2024 $st$	Extended Target	12 ADDRESS ADR
Reduce fuel usage per registered non-EVs of vehicle fleet in 2024 to a level not more than that in 2023 *	Not Achieved The fuel usage for each registered non-EVs of the fleet rose by 6.72% in 2024 compared to 2023. This increase also includes the fuel usage from vehicles for emergency use.	12 mmeri Recordson 13 mmeri 13 mmeri Recordson 13 mmeri Recordson 14 mmeri 15
Reduce the fuel usage of the registered non-EVs of vehicle fleet, excluding vehicles for emergency use, in 2025 to a level not more than that in 2024 *	Extended Target	12 month and approximation approxi
Increase total mileage of EVs of vehicle fleet to exceed total mileage of non-EV in 2024 *	Achieved	
Increase total mileage of EVs of vehicle fleet to exceed total mileage of non-EV in 2025 *	Extended Target	11 SECHAMERICUS ACCOMMENTS 13 JUNE

Notes:

[1] Our science-based target is in line with the well-below 2°C pathway following the Sectoral Decarbonisation Approach

Sustainability Targets	Progress in 2024	Alignment with UNSDGs
Obtain at least one Wastewi\$e Certificate and one Energywi\$e Certificate under the Hong Kong Green Organisation Certification Scheme in 2024 *	✓ Achieved	7 And the second
Obtain at least one Wastewi\$e Certificate and one Energywi\$e Certificate under the Hong Kong Green Organisation Certification Scheme in 2025 *	Z Extended Target	7 addresses addresses Sec. 12 Horward AD RECENT
Reduce production of ash and gypsum at LPS by 37% in 2024 as compared to that in 2019	Achieved	12 BECARTS BECARTS COO
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 *	✓ Achieved	7 contract contractor contractor
Conduct a retro-commissioning project for Hongkong Electric Centre in 2024 *	The retro-commissioning works for the 4/F of Hongkong Electric Centre was postponed and are scheduled to be completed by 2025.	N12
Involve 120,000 participants in green education activities in 2024 *	d Achieved	4 more total 13 mere total 13 mere
Involve 140,000 participants in green education activities in 2025 * Climate-Relate	☑ Extended Target d	4 more 13 mm 13 mm 14 mm
Reduce corporate water intensity (per unit of electricity sold) by 7% by 2029 as compared to 2024 *	New Target	B RUMENTER ADSIANTERN TOTAL
Conduct a bird survey in Lamma Power Station in 2025 spanning summer and winter to assess and enhance biodiversity conservation efforts	New Target	15 ж. Ф
Reuse at least 5,000 litres of the used turbine oil from the retired units in othe generating units and equipment in 2025*	r 🔂 New Target	12 BOOMER BOOMER BOOMER BOOMER

Notes:



#### Serving Hong Kong

Sustainability Targets	Progress in 2024	Alignment with UNSDGs
Maintain a safe and reliable electricity supply: * Maintain a yearly supply reliability rating of better than 99.999%.	Achieved	Protection and Constraints
<ul> <li>Alleviate the impact on reliability of fuel supply and the pressure on electricity tariffs due to volatility in global fuel market: *</li> <li>Continue to source worldwide cost-competitive fuels of suitable quality to meet fuel demand.</li> </ul>	Achieved	7 economicato Possi-
	> In Progress	
Deploy smart meters: * > Complete full-scale smart meter deployment by 2025. Climate-Related	As at the end of 2024, more than 480,000 smart meters were deployed, covering approximately 80% of our customers.	9 March Hanna Reserved Reserve
	> In Progress	
<ul> <li>Promote electrification to improve energy efficiency and reduce carbon emissions: *</li> <li>Support 100 construction sites to use grid-electricity supply to replace diesel generators during the period from 2024 to 2028</li> <li>Support 20,000 parking spaces to install EV charging-enabling infrastructure during the period from 2024 to 2028</li> <li>Support 500 businesses to adopt energy-efficient electrical equipment for business operations during the period from 2024 to 2028.</li> </ul>	In 2024, 20 construction sites were supported to adopt grid- electricity supply to replace diesel generators, about 7,000 parking spaces were supported to install EV charging-enabling infrastructure and 85 businesses were supported to adopt energy- efficient electrical equipment for business operations.	Temmen Mir
	> In Progress	
<ul> <li>Provide free energy audits for non-residential customers and subsidies to building owners for implementing energy efficiency enhancement projects: *</li> <li>Complete 1,000 audits and subsidise 500 buildings during the period from 2024 to 2028.</li> </ul>	In 2024, 216 free Smart Power Energy Audits were completed and subsidies for 193 buildings were approved.	7 trimetan K
Complete at least 200 audits under Smart Power Energy Audit in 2024, particularly for NGOs, schools and SMEs * Climate-Related	Achieved	7 testantus Testantus
Complete at least 200 audits under Smart Power Energy Audit in 2025, particularly for NGOs, schools and SMEs * Climate-Related	Extended Target	7 consult and

Notes:

Sustainability Targets	Progress in 2024	Alignment with UNSDGs
Confirm energy efficiency enhancement project subsidies for at least 100 buildings in 2024, including residential buildings, commercial buildings, NGO buildings and schools *	Achieved	
Confirm energy efficiency enhancement project subsidies for at least 100 buildings in 2025, including residential buildings, commercial buildings, NGO buildings and schools *	<b>Extended Target</b>	7::::::::::::::::::::::::::::::::::::
Fulfil all our customer service pledges, embracing supply reliability, speediness of provision of supply and other customer services, including emergency services, in 2024 *	Achieved	
Fulfil all our customer service pledges, embracing supply reliability, speediness of provision of supply and other customer services, including emergency services, in 2025 *	Z Extended Target	
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 *	Achieved	4 antr A antra Mili
Further expand the Plant Ownership Programme at LPS by adding at least one new project in 2025 to enhance plant reliability and availability, and to facilitate development of young engineers *	Z Extended Target	4 andr Markan Mili
Launch a promotion programme on electronic billing and the HK Electric App in 2024 to encourage more customers to switch to electronic services *	Achieved	9 Karts Newer Karts Newer Kar
Launch a promotion programme on electronic billing and the HK Electric App in 2025 to encourage more customers to switch to electronic services *	Extended Target	9 Kontenentation Statementati
Complete as least one new Reliability Centred Maintenance (RCM) project in 2025 *	New Target	9 Institution

Notes:



#### Working with Partners

Sustainability Targets		Progress in 2024	with UNSDGs
<ul> <li>Build capacity in HK Electric's supply chain: *</li> <li>Conduct a Sustainable Procurement Survey with key their awareness of climate change and related topic</li> </ul>		Achieved	22 Exactly 13 Sector 13 Sector
Ensure employees are paid fairly: * > Continue to implement a pay-for-performance polic	y and ensure timely review.	Achieved	8 more and one
<ul> <li>Promote and incentivise health and safety: *</li> <li>Hold at least two webinars and one forum per year</li> <li>Continue to implement a Safety Excellence Scheme Scheme.</li> </ul>	and Safe Driving Incentive	Achieved	3 marana marana 
Achieve a reduction in the Lost Time Injury Frequency Ra average over the previous three years	ate in 2024 as compared to the	Not Achieved The Lost Time Injury Frequency Rate was 0.17 in 2024, which is higher than the average over the previous three years of 0.07.	3 annu Antoine Antoine
Achieve a reduction in the Lost Time Injury Frequency Ra average over the previous three years	ate in 2025 as compared to the	Extended Target	3 100 MUR 
Achieve a reduction in the Lost Time Injury Severity Rate average over the previous three years	in 2024 as compared to the	Achieved	3 non-mura 
Achieve a reduction in the Lost Time Injury Severity Rate average over the previous three years	in 2025 as compared to the	Extended Target	3 non-mura 
Obtain at least three Excellent Class IAQ Certificate IAQ Certification Scheme in 2024	es under the Government's	Achieved	3 months and - Market
Obtain at least three Excellent Class IAQ Certificate IAQ Certification Scheme in 2025	es under the Government's	Extended Target	3 normalised -///
Organise a series of health talks and interest classe maintain a healthy and balanced lifestyle in 2024	s to enable our employees to	Achieved	3 (200 (8011)) -///
Organise a series of health talks and interest classe maintain a healthy and balanced lifestyle in 2025	s to enable our employees to	Extended Target	3 2000 MACT → √ ↓

Notes:

\* Targets for the six particularly focused SDGs, which closely align with our corporate strategies and business priorities, including SDG 7, 8, 9, 11, 12 and 13.



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# Investing for the Future

# Running a Sustainable Business

Sharing our Planet Serving Hong Kong Working with Partners



# **Running a Sustainable Business**

## **Overview**

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HKEI recognises that true success extends beyond financial results; it lies in our unwavering commitment to sustainability and social responsibility. By engaging a diverse group of stakeholders – including shareholders, employees, suppliers, business partners, customers, local communities and government authorities – we strive to create long-term value while advancing our mission. Guided by our Sustainability Policy and Sustainability Framework, we integrate sustainability into every facet of our operations, realising our Vision, Missions and Core Values.

Through strategic governance, prudent financial management and an unwavering focus on operational efficiency, we ensure steady growth and resilience in a rapidly changing world. In alignment with the Corporate Governance Code of the Hong Kong Stock Exchange, our governance policies demonstrate our dedication to ethical standards, transparency and accountability. This robust framework not only reinforces stakeholder confidence but also drives sustainable investment and long-term growth.

Innovation and integrity are the foundations of our approach, empowering us to adapt and thrive. By fostering a culture of innovation, we prepare for future challenges while nurturing talent and encouraging collaboration across all levels of the organisation. Leveraging technological advancements, we address climate-related risks and alleviate the financial burden of rising energy costs for the most vulnerable members on our community.

With sustainability at the heart of our strategy, we continue to take meaningful steps towards a more resilient, inclusive, equitable and environmentally conscious future. As a responsible corporate citizen and public utility, we are committed to a just and inclusive transition to a low-carbon economy.

#### **Key Corporate Policies**

Striving for excellence beyond regulatory requirements, our corporate policies demonstrate our commitment to responsible business practices in key areas such as workplace standards, environmental sustainability, community engagement and ethical conduct. In line with this overarching principle, individual business units and subsidiaries may implement additional measures tailored to their specific operations and needs.

Regular reviews and updates are carried out to keep the policies aligned with changing operational needs and regulatory requirements. Guided by a robust corporate governance framework, the Board, assisted by relevant committees and Senior Management, oversees and approves any revisions to maintain the standards of these policies.

The following key corporate policies are available on our corporate website.

Corporate governance policies	Sustainab	ESG Dility policies				
<ul> <li>Anti-Fraud and Anti-Bribery Policy</li> <li>Board Diversity Policy</li> <li>Code of Conduct</li> <li>Director Nomination Policy</li> <li>Holder of Share Stapled Units Communication Policy</li> <li>Information Security Policy</li> <li>Personal Data Privacy Policy</li> <li>Policy on Inside Information and Securities Dealing</li> <li>Whistleblowing Procedure</li> </ul>	<ul> <li>Sustainability Policy</li> <li>Anti-harassment Policy</li> <li>Biodiversity Policy</li> <li>Code of Practice for Suppliers</li> <li>Complaints Handling Policy</li> <li>Corporate Security Policy</li> <li>Customer Services Policy</li> <li>Environmental Policy</li> <li>Health &amp; Safety Policy</li> <li>Human Rights Policy</li> </ul>	<ul> <li>Learning and Development Policy</li> <li>Quality Policy</li> <li>Workforce Diversity Policy</li> <li>Media, Stakeholder Engagement and Community Investment Policy</li> </ul>				
	Sustainable		Business		Climate-	
----------	-------------	------------	---------------	------------	-------------	------------
	Long-term	Corporate	Ethics	Risk	related	
Overview	Growth	Governance	and Integrity	Management	Disclosures	Innovation

## Sustainable Long-term Growth

We are committed to excelling in the power business and contributing to Hong Kong's sustainable development by providing safe, reliable, clean and affordable electricity. In the face of the climate challenge, we recognise the pressing need to reduce GHG emissions. In collaboration with the Government, we are exploring effective strategies to achieve carbon neutrality in Hong Kong.

To drive our long-term growth, we are guided by three core strategies that create lasting value for our investors while advancing sustainability across the power sector.

#### World-class Power for a World-class City

We recognise that delivering highly reliable electricity supply services is vital to supporting Hong Kong's economic growth and prosperity. At the same time, we are adopting advanced technologies and innovative solutions to help transform Hong Kong into a greener, smarter city, enhancing the quality of life for Hong Kong residents. Reducing our carbon footprint is a cornerstone of our decarbonisation strategy. Central to this effort is the transition from coal to gas, which includes phasing out all coal-fired power generation at LPS by 2035. This transition not only supports global climate goals but also underscores our commitment to cleaner energy and sustainable growth.

We are also introducing smart meters across our customer clusters, empowering them to monitor and manage their energy use more effectively, 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.

In alignment with Hong Kong's ambitious goal of achieving net-zero electricity generation by 2050, we are actively supporting the Government's vision by transitioning to more sustainable energy sources. Our efforts include collaborating with the Government and other strategic partners to facilitate zero-carbon energy imports from the Mainland, a critical initiative to diversify our energy mix and meet our sustainability targets.

#### **Prudent Financial Management and Efficient Operations**

In an economic environment marked by increasing risks and rising costs, prudent financial management has become more essential than ever. We are committed to maintaining a robust capital structure with strong liquidity, ensuring that we are well-positioned to navigate uncertainties and seize growth opportunities. This financial discipline not only allows us to safeguard our operations but also enables us to remain agile in the face of market fluctuations.

Our approach to financial management focuses on optimising operational processes and resource allocation to drive efficiency across the business. Where appropriate, we will also consider leveraging on sustainable finance to bring positive impact on our sustainability performance. This strategy not only safeguards our financial health and enables us to invest in advanced, innovative projects that propel our sustainability agenda, but also helps ensure sustainable returns for our investors and affordable electricity supply for our customers.

## **Corporate Governance**

HKEI is dedicated to maintaining the highest standards of corporate governance through its policies and practices. Guided by a robust governance framework, we uphold core values such as integrity, accountability, transparency, diversity and sustainability, ensuring these principles are actively put into practice. Through strict compliance and a commitment to continuous improvement, HKEI strives to refine its governance approaches, aligning with global sustainability trends to create a better future for the next generation.



#### **Corporate Governance Structure**

The Board plays a critical role in ensuring HKEI's strategic alignment with its long-term objectives by establishing and overseeing the governance framework. It also takes responsibility for setting the strategic direction and ensuring accountability and sustainability across the organisation. With the support of various standing committees, the Board carefully reviews and guides management decisions to ensure that operations align with HKEI's objectives. While the Board maintains oversight of the Group's operational, financial and sustainability performance, dayto-day management is delegated to the executive team, led by the CEO. The Board also strengthens its leadership role by fostering effective communication with shareholders and actively engaging with other key stakeholders.

Recognising the importance of effective climate governance, we ensure that our Board of Directors is equipped with the necessary qualifications and competencies. Our board members are involved in the climate-related strategy making process and they maintain a balanced mix of skill sets, experience, expertise and diverse perspectives, enabling them to effectively oversee business strategies, including those related to climate-related risks and opportunities. For further details on the skills and competencies of our Board, including its diversity profile and the Board Performance Evaluation, please refer to our <u>Annual Report</u>.

## **Board Training**

HKEI prioritises providing its directors with necessary trainings and resources. These trainings are designed to address key areas such as sustainability, climate-related issues, corporate governance, board diversity, business ethics, legal, accounting and regulatory developments. In addition, Directors receive regular updates on HKEI's business performance to ensure they remain informed and prepared for decision-making. For details, please refer to our <u>Annual Report</u>.

### **Board Committees**

The Board is supported by the Audit Committee, Nomination Committee, Remuneration Committee and Sustainability Committee. Each committee plays a vital role in specific aspects of HKEI's corporate governance, focusing on policy development, strategy formulation and financial performance management while ensuring effective risk management and compliance with applicable laws and regulations. Regular communication between the committees and the Board ensures alignment with HKEI's strategic priorities and promotes a cohesive approach to governance. For further information on our corporate governance, please refer to our <u>Annual Report</u>.



> 2024 Annual General Meeting

# **Business Ethics and Integrity**

HKEI is dedicated to maintaining the highest standards of ethics and integrity in all its operations. To ensure this, we have implemented robust controls and frameworks that guide fair decision-making across all levels of the organisation. The Board of Directors, executives and employees are all required to adhere to our comprehensive Code of Conduct, which serves as the foundation for ethical behaviour and protects both personal and company integrity.

To strengthen our ethical practices, our business units perform anti-bribery risk assessments twice a year. Any incidents of bribery or corruption are required to be reported quarterly to the Internal Audit Department. In 2024, all 14 business units underwent comprehensive assessments for fraud and corruption risks. This process ensures that high-risk areas, such as procurement, are given attention during our internal audits, which focus on identifying fraud risks and implementing anti-fraud controls.

Additionally, our contracts clearly outline ethical expectations alongside sustainability requirements, which are communicated through our tender documents. We hold all suppliers and contractors to the same ethical standards by requiring adherence to our Code of Practice for Suppliers, ensuring that they uphold similar ethical standards in their operations.

#### **Guidance on Business Ethics**

To further support our ethical standards, we have guidance that outlines clear moral expectations in key areas such as anti-corruption, respecting human rights and whistleblowing. These are made accessible to all employees, and trainings are provided to reinforce these essential subjects. For more information, please visit our <u>corporate website</u>.



#### Code of Conduct –

Accompanied by comprehensive human resources policies and procedures to address ethical concerns;

#### Anti-Fraud and Anti-Bribery Policy and Fraud Prevention and Awareness Policy –

Supported by a biannual anti-bribery and anti-corruption control assessment to minimise exposure to fraud and bribery risks;

#### + Human Rights Policy –

Ensures the organisation respects human rights and encourages stakeholders to uphold these rights throughout our value chain;

#### Intellectual Property Policy and Copyright Guidelines –

Protect our intellectual property while respecting the rights of others;

**4** Whistleblowing Procedure –

Provides channels and guidance for employees and other stakeholders to report incidents of suspected impropriety, misconduct or malpractice; and

#### **4** Code of Practice for Suppliers –

Encourages suppliers to uphold high standards of business conduct related to ethics and governance, human and labour rights, health and safety, environmental protection and climate action, and physical security and information security.

#### Training for Board of Directors and Employees

To foster a culture of integrity, we provide comprehensive anti-corruption training for Board members and employees. New hires are required to attend an Orientation Programme that covers our Code of Conduct, fraud prevention, bribery awareness and our Whistleblowing Procedure. Consequently, nearly 100% of employees have received anti-corruption training.

### **Year-round Compliance Trainings**





## Whistleblowing

HKEI is committed to maintaining the highest standards of honesty, openness, and accountability. In line with this commitment, we have established a comprehensive Whistleblowing Procedure that enables employees and external stakeholders, including customers, suppliers, creditors and debtors, to report any suspected wrongdoing within the organisation. Our Whistleblowing Procedure is easily accessible in local languages on our Corporate Intranet Portal and corporate website, encouraging employees, suppliers, customers and other stakeholders to report any suspected misconduct. Our dedicated whistleblowing channel is available round the clock.

The Audit Committee oversees the enforcement and effectiveness of this Whistleblowing Procedure and conducts regular reviews to ensure its relevance and effectiveness. In 2024, we received 2 whistleblowing reports, all related to breaches of the Code of Conduct. There were no convictions for discrimination, harassment, breaches of personal data privacy, corruption, money laundering or insider trading during the year.

## **Risk Management**

Risk management begins at the Board level and extends throughout all levels and operational units of the organisation. Our Enterprise Risk Management ("ERM") Framework adopts a dual top-down and bottom-up approach to systematically identify, assess, mitigate and monitor key business, financial, operational and compliance risks, including ESG risks such as those related to climate change. ESG and climate-related risks are identified and managed through the Group's ESG Risk Management Framework. Climate scenario analysis is performed to support the identification of climate-related risks and opportunities. To stay resilient, we monitor risks continuously and review them regularly to respond quickly to emerging challenges, while also preparing for climate-related opportunities.

The risk identification process takes into account internal and external factors. These include economic, political, social, technological, environmental, laws and regulations, Group strategy and our stakeholders' expectations in these aspects. Risks are grouped into different categories to facilitate their management. Each risk identified is analysed on the basis of likelihood and impact in accordance with the risk appetite set by the Company Board. During the risk assessment process, the impact of a risk is evaluated across various aspects, including financial, health and safety, environmental, reputational, regulatory, customer service, reliability, organisational and employee engagement, with severity levels ranging from insignificant to very substantial. The likelihood of a risk occurring is assessed on a scale from rare to almost certain. Together, these two dimensions determine the overall risk rating, which informs the prioritisation and management of risks. Action plans are then developed to mitigate potential impacts and reduce the likelihood of occurrence. The risk assessment process also includes a review of the control mechanisms for each risk and a rating of the effectiveness of each control.

To ensure business continuity and effective responses to emergencies, we have developed a Crisis Management Plan ("CMP"), along with tailored contingency plans for individual business units. A dedicated Crisis Management Team is prepared to activate the CMP when necessary. Additionally, we conduct routine drills to enhance the effectiveness of our crisis management procedures, ensuring that our teams are well-equipped to handle potential emergencies.

We have listed climate-related physical and transition 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 identifying climate-related risks and opportunities by leveraging climate-related scenario analysis, please refer to the <u>Climate-related Disclosures</u> section of this chapter.



## **Climate-related Disclosures**

HKEI continuously enhances its climate-related disclosures. In April 2024, we published the <u>Climate-related Disclosures</u> <u>Report</u>, detailing our approach to managing climate risks and opportunities from the perspectives of governance, strategy, risk management, as well as metrics and targets in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). This section provides additional disclosures and updates covering the above four pillars.

HKEI is committed to combatting climate change and supporting Hong Kong's transition to a zero-carbon future. Recognising the importance of effective climate governance, the company Board is equipped with the necessary qualifications and competencies. The CEO supports the Board by actively participating in the company's climate-related strategy-making process. He has a balanced mix of skill sets, experience, expertise, and diverse perspectives, enabling him to effectively oversee business strategies, including those related to climaterelated risks and opportunities, ensure the integration of climate considerations into the company's strategic planning, and oversee the implementation progress of the climate-related initiatives, including projects approved under Development Plans to ensure goals are met. To support continuous capacity building, ESG and climate related trainings are provided to the Directors of the company Board in the year. For further details, please refer to our Annual Report.

The Sustainability Management Committee comprises senior management and chaired by the CEO, meets quarterly to understand the latest situation of the above matters. It also leads and coordinates HKEI's sustainability efforts and foster a deeper understanding of sustainability

throughout the organisation. The Corporate Development Division coordinates the company's sustainability and climate-related initiatives of HK Electric. For details of the climate management governance, please refer to the chapter on <u>Our</u> <u>Business and Approach to</u> <u>Sustainability and Climate-</u> related Disclosures Report.



# Identifying climate-related risks and opportunities

As part of the ESG risk management process, we identified climate-related risks and opportunities material to its operations and value chain, then applied scenario analysis to evaluate their potential impacts. We recognise the importance of understanding and managing these risks and opportunities for our business model and value chain.

> Our business model

HK Electric is the only operating company of HKEl group, and its financial effects represent the same for the group. HK Electric's operations are subject to the SCA entered into with the HKSAR Government.

The SCA sets out a permitted rate of return of 8% on Average Net Fixed Assets, meaning our permitted level of earnings is based principally on a return on our capital investment in electricity generation, transmission, distribution and other related assets. The current SCA is effective for a term of 15 years from 1 January 2019 to 31 December 2033. For details, please refer to the Corporate Information 2023/24.

> Our value chain

HK Electric integrates sustainability across its value chain as part of our management approach to transitioning our business towards carbon neutrality and achieving long-term sustainable growth. Our value chain encompasses our business processes and stakeholders from downstream to upstream. For details on our value chain, please refer to the chapter on <u>Our Business and</u> <u>Approach to Sustainability</u>.

To assess our infrastructure's climate resilience and readiness, we used scenario analysis to evaluate the potential impact of the identified physical risks, as well as transition risks and opportunities material to our business activities and value chain. For details of the climate scenario analysis, please refer to the <u>Climate-related Disclosures</u> <u>Report</u>.

**Sustainable Business** Climate-Long-term Corporate **Ethics** Risk related **Overview** Growth and Integrity Management Disclosures Governance Innovation



envelope. Similarly, the potential financial implications arising from our upstream activities, primarily related to the purchasing of fuels, services, raw materials, etc., also remain insignificant. Impacts on our downstream activities are considered immaterial, as our customers continue to enjoy a safe and highly reliable electricity supply, with a reliability rating maintained at over 99.999% since 1997, as long as our climate-related risks are properly managed and mitigated. In summary, our total operating costs are fully recoverable under the SCA framework, allowing us to address climate challenges by consistently providing accessible, reliable, and greener electricity supply to our customers.

We continually leverage our ESG risk management framework to evaluate the impacts of our climate-related risks and opportunities. This well-established process enables us to implement appropriate control measures, monitor progress, and track risk ratings, allowing us to holistically manage their impacts on our operations.

# challenges through Development Plan

Our current Development Plan, covering 2024 to 2028, details the expenditures of major projects aimed at decarbonisation and climate resilience, addressing our material climate-related risks and opportunities identified. In the power generation system, key initiatives include increasing gas-fired generation by commissioning a new gas-fired combined cycle gas turbine unit at Lamma Power Station, enhancing the reliability of combined cycle gas turbines, and improving generation systems along with the required civil work at Lamma Power Station. For the transmission and distribution systems, significant projects involve building new zone substations to meet future demands, replacing aged cable circuits, and upgrading substations to enhance reliability. This plan aligns with the HKSAR Government's decarbonisation visions and balances our stakeholders' interests.

Underpinned by the Development Plan, we report climaterelated financial implications during the year, including capital investments in climate actions and the anticipated effects for the short-term (0 to 1 year) and for the medium term (2 to 5 years). The quantitative financial implications for the long-term (5+ years) involve significant uncertainty as they are beyond the current Development Plan under the SCA, which is effective until the end of 2028.

## Summary of current and anticipated capital expenditure and other costs

Transmission and distribution assets Capital investment
HK\$1,821 million
We have allocated capital for:
Transmission and distribution systems
Smart meters and advanced meter infrastructure.
The goal is to enhance resilience against extreme weather events and improve energy usage by
customers.

#### Provision for decommissioning costs

Provision	Utilisation
HK\$86 million	HK\$67 million
We have estimated future costs required for dismantling ret	tired or retiring generating units and common facilities

We have estimated future costs required for dismantling retired or retiring generating units and common facilities. A provision has been recognised on the balance sheet to be financially prepared, and actual costs are tracked as decommissioning activities commence.

Feed-in Tariff Scheme and	Smart Power Building Fund &
RE Certificates	Smart Power Education Fund
Investment	Investment
HK\$41 million	HK\$30 million
<ul> <li>We have recognised the relevant costs of the Feed-in Tariff (net of the sale proceeds from RE Certificates), with the goal to:</li> <li>Promote local renewable energy development</li> <li>Encourage individuals and businesses to utilise more renewable energy (e.g., solar, wind) in their day-to- day lives.</li> </ul>	<ul> <li>We have recognised the funds based on annual injections on its statement of profit or loss to, with the goal to:</li> <li>Subsidise building owners to implement energy efficiency enhancement projects for building services installations</li> <li>Promote energy efficiency and a low-carbon lifestyle.</li> </ul>

Overview	Sustainable Long-term Growth	Corporate Governance	Business Ethics and Integrity	Risk Management	Climate- related Disclosures	Innovation	
	Anticipat	ed Capital	Expenditure	e and Fund P	rovisions		
G	ort- and Mediun eneration as	sets		Tran	and Medium-to	nd	
Planned capital investment HK\$9,126 million <sup>#</sup>				distribution assets Planned capital investment HK\$7,379 million#			
<ul> <li>We plan to invest in Lamma Power Station to support the coal-to-gas energy transition, ensure reliability and enhance system resilience against extreme weather events.</li> <li>Key initiatives include:</li> <li>Construction of a new gas-fired unit L13</li> <li>Re-provision of OCGT</li> <li>Enhancement and reliability upgrades of generation systems, civil structures, and common facilities at Lamma Power Station.</li> </ul>			and resi events. floo Key 4 H t ation 4 C at 4 I	<ul> <li>We plan to invest in projects that improve system resilience against extreme weather events including flood control and protection against typhoon attack.</li> <li>Key initiatives include:</li> <li>Kick off the development of new zone substations to meet district developments</li> <li>Upgrading of substations for reliability enhancement</li> <li>Improvement and reliability upgrade of the 132-kV and 275-kV transmission system</li> </ul>			
C-			<b>4</b> ( <b>4</b> ( t	Grid automation a	nd control impro ovements and re nd distribution fa	eliability upgrades acilities.	

We plan to promote energy efficiency, a low-carbon lifestyle, and the use of renewable energy through various subsidy programmes, educational initiatives, and promotional activities.

Short-term	Medium-term	Long-term
Provision of fund	Provision of fund	Provision of fund
HK\$60 million^*	HK\$90 million^*	HK\$150 million^*

Notes:

- # HKEI is unable to provide capital investment figures beyond the current Development Plan which is up to 2028 because capital expenditures of HKEI are subject to the HKSAR Government's approval.
- <sup>^</sup> The long-term projection has been calculated up to 2033, as HKEI is unable to provide figures for 2034 and beyond because this timeframe exceeds the terms of the current SCA, which covers 2019 to 2033.
- \* Under SCA, HKEI is entitled to recover its operating costs. Therefore, the provision of the two funds does not have effects on the group's financial performance.

## Tackling climate-related risks and opportunities through business activities

HKEI is actively managing its exposure to climate risks while seizing climate opportunities. A host of climate mitigation and precautionary measures are implemented at the Lamma Power Station and within our transmission and distribution network. Climate risk assessments are conducted regularly to help us better understand and effectively manage existing and potential impacts.

To help meet the HKSAR Government's 2035 interim decarbonisation target, HKEI is transitioning from coal-fired to gas-fired generation and plans to cease using coal for

daily electricity generation by 2035. In 2024, our proportion of gas generation increased to 68%, up from about 56% in 2023.

To enable our society to decarbonise, we promote green education among the public and support our customers in reducing their carbon footprints through our Smart Power Services. For more details about promoting energy efficiency, electrification, and low-carbon lifestyle, please refer to the chapter on <u>Serving Hong Kong</u>.

#### Alignment of our business activities with climate-related risks and opportunities

– Physical Risks –

Our Lamma Power Station, is not highly exposed to physical risks based on a site-specific physical risk assessment.\*

We have implemented various physical resilience measures at the station, including:

- Anti-flooding facilities
- Regular reviews of contingency plans.

#### **Transition Risks** -

We are transitioning from coal to gas in power generation and is committed to phasing out coal for daily electricity generation by 2035.

**32%** coal-fired

generation

Fuel mix in 2024

68% gas-fired generation

Key achievement: Carbon intensity reduction from **0.66** kg  $CO_2e/kWh$  in 2023 to **0.60** kg  $CO_2e/kWh$  in 2024.

	Climate opportunities	
Generation System	Transmission and Distribution System	Smart Power Services
We are allocating <b>HK\$10.6 billion</b> <sup>^</sup> from 2024 to 2028 to build new energy infrastructure that helps reduce carbon emissions.	We are allocating <b>HK\$9.2 billion</b> <sup>^</sup> from 2024 to 2028 to enhance the power grid and support smart city development.	We are investing over <b>HK\$55 million</b> in 2024 to assist customers and the community in decarbonisation efforts, including:
This amount constitutes <b>48%</b> of the total expenditure in our 2024–2028 Development Plan. Key initiatives include:	This amount constitutes <b>42%</b> of the total expenditure in our 2024–2028 Development Plan. Key initiatives include:	<ul> <li>Continuous decarbonisation through electrification</li> <li>Community care</li> <li>Education and stakeholder engagement.</li> </ul>
<ul> <li>Building of new gas fired generating unit</li> <li>Sustaining the reliability of gasfired generating units.</li> </ul>	<ul> <li>Improving system resilience against extreme weather, e.g., flood control and wind protection against typhoon attack</li> <li>Deploying smart meters and enhancing grid intelligence and automation</li> <li>Replacing aged underground cables to sustain supply reliability.</li> </ul>	These efforts drive Hong Kong toward a smart, zero-carbon, and caring city.

#### **Climate opportunities**

Notes:

\* Based on scenario analysis, the magnitude of climate physical risk is assessed to be insignificant and low, estimated at less than HK\$40 million. For details, please refer to the <u>Climate-related Disclosures Report</u>.

<sup>^</sup> Figure extracted from 2024-2028 Development Plan.

## Innovation

Innovation has always been a cornerstone of HKEI's business philosophy, enhancing operations and stakeholder value. By integrating advanced technologies and adopting forward-thinking approaches, we aim to achieve transformative outcomes that support our long-term goals. This is a key element in our Sustainability Framework and is essential for addressing the dynamic challenges of today's ever-changing environment.

To this end, we foster a continuously innovative working environment, encouraging and supporting initiatives for improvement and breakthrough approaches. Employees are motivated to explore new ideas and pursue excellence. Furthermore, we collaborate with research institutions, universities and industry partners to enrich the innovation ecosystem, facilitating the exchange of knowledge and resources that drive advancements.

Our CEO-led Innovation Steering Committee plays a central role in cultivating a work culture that embraces innovation. The committee focuses on enhancing operational efficiency, improving performance and elevating customer experiences through cutting-edge technologies and renewed approaches. By harnessing the capabilities of mobile applications, big data, artificial intelligence ("AI") and other advanced innovations, the committee's objective to pursue excellence is closely aligned with our sustainability goals. Comprehensive internal policies and programmes are in place to promote innovation, ensuring they contribute to our broader sustainability ambitions.

## Establishing a Culture of Innovation

Innovation is at the core of our business strategy, where we encourage collaboration with external experts while harnessing the creativity and dedication of our employees. This approach not only enables us to excel in the utilities sector but also fosters a culture of continuous improvement. By integrating external insights with our internal expertise, we strengthen our climate resilience and ensure sustainable practices that support both our business goals and the communities we serve.

The Innovation Steering Committee leads our strategic initiatives, ensuring that innovation remains a top priority. With the support of the TechWatch Teams, which monitor emerging technologies and identifies integration opportunities, we enhance our innovation capabilities.

Innovating Beyond Boundaries

We Power Innovation for Success

Through partnerships with research institutes, universities and startups, we gain access to cutting-edge expertise and maintain our competitiveness and adaptability in response to rapid technological advancements.

Demonstrating our dedication, HK Electric has revised its Innovation Strategy in 2024, ensuring it complements our investments in state-of-the-art technologies such as Internet of Things ("IoT") and AI. We have enhanced our innovation processes and bolstered our management systems with advanced analytics to support our continuous innovation efforts. Furthermore, we have increased both funding and staffing to enhance personnel development and advance our innovation projects. To embed strategic foresight into our operations, we integrate insights from mega trend analysis into our strategic planning. This approach not only informs our decision-making but also positions us to remain at the forefront of industry developments, as highlighted by our new IT strategies for 2024-2028.

#### Empowering Innovation Champions and Collaborative Platforms

To strengthen our culture of innovation, we have appointed Innovation Champions across departments to promote new ideas and facilitate the sharing of solutions. Launched in 2018, Inno Hub, our online collaboration platform, has played a key role in this effort, generating over 240 ideas that have moved from concept to successful implementation. This dynamic platform fosters creativity and empowers employees to actively contribute to our innovation journey, driving meaningful change throughout the organisation. Recently, we have set up a physical Inno Hub at our Head Office, providing a venue for our colleagues to meet, discuss and develop innovative ideas together.



 The Inno Hub at Hongkong Electric Centre helps inspire innovative ideas.

### **Embracing Innovative Energy Efficiency Solutions**

The Administration and Control Building ("ACB") at HK Electric's Lamma Power Station Extension is at the forefront of environmental innovation, aligning with the Hong Kong Government's goal for net-zero carbon emissions by 2050. The building integrates cutting-edge energy-saving technologies including an Artificial Intelligence Energy Optimisation Solution ("AI-EOS") for the chiller plant, an IoT system, and a Smart Building Platform ("SBP").



The AI-EOS optimises the high-energy-consuming chiller plant, crucial in a city where air-conditioning

historically accounts for 30% of electricity usage. Utilising algorithms like Artificial Neural Networks (ANN) and Particle Swarm Optimisation (PSO), it enhances efficiency by dynamically adjusting system settings based on data analysis.

The IoT system employs a LoRaWAN network for seamless data collection on environmental and operational conditions, reducing installation costs and improving system flexibility. Furthermore, the SBP integrates and visualises this data, enabling efficient real-time monitoring and management of building systems.

#### **Smart Monitoring for Switchgear Operations**

In 2024, we introduced an innovative project to monitor the operations of distribution switchgear by capturing the current profile of DC control power during remote switchgear operation tests. We developed a smart tool that alerts our engineers if operation times exceed pre-set thresholds, aiding in the identification of sticky switches that need re-lubrication. This tool was further modified as a permanent installation for continuous monitoring of switchgear operations. The project received the HKIE MIS Industry Award — Innovation Award (Bronze) in 2024 and was patented in the second half of the year.

# Strategy Optimisation for Proactive 11-kV Power Distribution Cable Diagnosis using Artificial Intelligence

In 2024, we have deployed an Artificial Intelligence (AI) programme to sort out the high-risk 11-kV power distribution cables to be tested with priority. This AI model was trained from database of cable testing results in past ten years. This trained AI model was validated with high accuracy for identifying high-risk power distribution cables in a blind test and was used to pick up potential high-risk 11-kV power distribution cables without testing. A part of the selected high-risk cable was arranged to test with priority in 2024 and remedial action has been taken to repair the defects of the cable once confirmed in further onsite inspection. Thanks to this AI model, the allocation of manpower for cable maintenance has been optimised and the reliability of the distribution network has been further enhanced.

## Use of 11-kV Mobile Transformer to Enhance Supply Reliability

Mobile transformer significantly enhances urban power supply reliability, crucial for economic stability, public safety, and daily life in densely populated cities like Hong Kong. Traditional contingency plans rely heavily on nearby networks, limiting restoration speed and flexibility during outages. Mobile transformer, paired strategically with low-voltage mobile generators, offers rapid, high-voltage backup power, streamlining restoration processes through the existing 11-kV infrastructure. The compact, modular, and versatile design reduces restoration times, optimises resources, and effectively addresses varying load conditions, especially beneficial in rural or constrained urban areas. Thus, adopting mobile transformer technology advances operational efficiency, enhances resilience, and fortifies overall power system reliability.

# Un-interrupted LV Backfeed using EMMCO Source Side Receptacle and Power Changeover Truck

In 2024, we introduced an innovative project to achieve uninterrupted backfeed to customers by installing an additional LV receptacle on the source side of the off-load disconnectors of the EMMCO isolator panel and using a Power Changeover Truck (PCT). The PCT would be connected across the source side and load side receptacles to provide a current shunt path, enabling opening of the off-load disconnectors without breaking the load current. Our maintenance/reinforcement work can then be carried out while customers will not experience any supply interruption.



#### **Innovative Low Voltage Fault Indicator**

To improve monitoring and diagnostic of our Low Voltage ("LV") network, we have designed an innovative LV Fault Indicator ("LVFI") using internal resources. This compact electronic device employs wireless LoRaWAN communication to identify faults in LV cable sections. Following a successful trial of 92 units, a second version of the LVFI has been developed, adding functionality to monitor current and voltage at service cut-outs. After successful site tests in May 2024, we fabricated 300 new units for deployment in a bigger scale. Recognising its uniqueness, a patent was granted for this innovative design.

#### Application of Data Analytics on Smart Meter Event Data to Enhance Operational Efficiency

As the number of smart meters grew in our network, the number of meter events being reported daily ballooned to hundreds of thousands making it unfeasible to process them manually to look for abnormalities. For better operational efficiency, we developed an innovative tool to analyse and filter the data generated every day into a manageable amount. By leveraging Python programming and statistical techniques, the tool automates the analysis and monitoring of events, enabling early detection and handling of potential issues with meters and sometimes, even the grid. This project has also cultivated a specialised team with engineering and IT related skills, capable of applying their expertise to other data analytics projects.

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Running a Sustainable Business

# Sharing our Planet

Serving Hong Kong Working with Partners



# **Sharing our Planet**

## **Overview**

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HK Electric recognises that the power sector plays a key role in driving the decarbonisation of society on the pathway to carbon neutrality. We wholeheartedly support the Government's climate and environmental policies, including its carbon reduction targets. Reducing emissions remains our top priority as we strive to combat climate change, improve local air quality and ensure full compliance with 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. To enhance our approach to biodiversity conservation, we formulated a Biodiversity Policy in 2024. These policies will be reviewed regularly or as needed to maintain their relevance and effectiveness.

HK Electric's Environment Committee ensures environmental considerations are fully integrated into business planning and operations. Climate-related and other environmental risks and opportunities are also considered in our risk management process. We systematically prevent or mitigate adverse impacts through assessments and appropriate mitigation measures, including regular monitoring and audits.

We implement Environmental Management Systems conforming to the International Standard ISO 14001, covering 100% of our operations in power generation, transmission and distribution, and infrastructure development. At LPS, there is also an Energy Management System certified to the International Standard ISO 50001. Implementation of these systems are monitored through regular third-party surveillance audits. In 2024, we developed 84 management plans with measurable targets to improve our environmental and energy performance.

We have embedded circular economy principles in our operations by promoting resource efficiency, waste management and sustainable use of materials. We collaborate with suppliers, contractors and other business partners to champion environmental stewardship across the value chain and work closely with the Government and NGOs on environmental education campaigns and services, and funding schemes.



# **Climate Action and Clean Air**

#### Management Approach

HK Electric supports the Government's decarbonisation goals for Hong Kong, including net-zero electricity generation and carbon neutrality before 2050. We are pursuing net zero and have set an interim science-based carbon reduction target in line with the Paris Agreement. We also contribute to improving Hong Kong's air quality by reducing other air emissions from power generation.

Our Environmental Policy outlines our approach to climate action, including phasing out coal-fired power generation, increasing gas-fired generation, promoting RE, exploring zero-carbon energy solutions and facilitating community decarbonisation efforts.

Our strategies for addressing climate impacts are detailed in our annual CDP Climate Change response. Our GHG inventory accounts for Scope 1, 2 and 3 emissions in line



with the GHG Protocol and the International Standard ISO 14064. We proactively monitor and address both physical and transition risks to ensure climate resilience and supply reliability. For more information, please refer to the chapter on Running a Sustainable Business.

#### PARTNERSHIPS FOR CARBON NEUTRALITY

HK Electric works with strategic partners to advance collective efforts toward climate resilience and carbon neutrality.



#### **Decarbonising Power Generation**

Decarbonising the electricity generation sector is one of the most crucial steps to reduce the city's carbon footprint. At HK Electric, we strive to achieve this by transitioning from coal-fired to gas-fired generation, harnessing RE, and exploring zero-carbon solutions. Switching from coal to natural gas is a clean, reliable and cost-effective way to help reduce carbon emissions from power generation as a transitional measure towards carbon neutrality.

In the past few years, we commissioned three new highly efficient combined-cycle gas-fired units at LPS, including L10 in 2020, L11 in 2022 and L12 in March 2024. On the other hand, since 2017, we have been phasing out ageing coal-fired units. By 2022, units L1, L2, and L3 have been retired, and units L4 and L5 followed suit in 2024. This transition enabled us to generate 68% of our total electricity output from natural gas in 2024 and achieve a 40% carbon reduction as compared with that of 2005.

Under the 2024–2028 Development Plan, a new 380-MW gas-fired combined-cycle generating unit, L13, is being constructed and planned for commissioning in 2029, to replace another ageing coal-fired unit L6. The last remaining coal-fired unit is expected to retire by 2035, enabling us to cease the use of coal for daily electricity generation by that year, in alignment with the Government's decarbonisation goals. L13, designed in line with the existing gas-fired units at LPS, will play a crucial role in further reducing carbon emissions during the energy transition. With appropriate modifications and repurposing, we expect our gas-fired units at LPS to be capable of utilising both natural gas





and hydrogen as fuel sources in the future, allowing us to explore the use of green hydrogen as a zero-carbon energy in Hong Kong.

HK Electric and CLP Power Hong Kong Limited commissioned an offshore liquefied natural gas (LNG) terminal in 2023. Facilitating access to international LNG markets, the terminal empowers both power providers to enhance gas supply stability and negotiate more competitive prices, thereby benefiting customers and contributing to the economic and decarbonisation of Hong Kong.

In support of the Government's plan, we are working together with the Government and other 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. To meet the future needs to increase the use of zero-carbon energy in Hong Kong, HK Electric fully supports conducting a feasibility study for the construction of the required Electricity Facilities at Tseung Kwan O Area 132. Additionally, we are exploring the feasibility of introducing more RE, including the installation of additional solar power systems on our premises.

During the year, HK Electric's Decarbonisation Study Group chaired by the Managing Director continue 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.

#### COAL-TO-GAS ENERGY TRANSITION

	2020	2022	2024
Electricity output from gas (%)	50%	53%	68%
Electricity output from coal (%)	50%	47%	32%
Carbon emissions per electricity unit sold (CO <sub>2</sub> e kg/kWh)	0.71	0.68	0.60
Reduction in carbon emissions from power generation vs 2005 (%)	28%	32%	40%
Remark	Commissioning of gas-fired unit L10	Commissioning of gas-fired unit L11 and retirement of an old and inefficient gas-fired unit GT57 that was due for replacement	Commissioning of gas-fired unit L12



#### MANAGING GHG EMISSIONS RESPONSIBLY

HK Electric is committed to managing GHG emissions responsibly through a comprehensive inventory and reduction programme. Our annual GHG emissions inventory, including Scope 1, 2 and 3 emissions, is prepared in compliance with the GHG Protocol and the International Standard ISO 14064, and is independently verified.

In 2024, our Scope 3 emissions accounted for approximately 17% of our total carbon footprint, primarily driven by fuel-related activities (Scope 3, Category 3) and capital goods (Scope 3, Category 2). For the methodology of GHG accounting, please refer to the <u>Greenhouse Gas</u> <u>Accounting Methodology</u>.

To support Hong Kong's decarbonisation goals, HK Electric has set an interim target to reduce its Scope 1 GHG emissions by 68.4% per kWh of electricity generated by 2035, using 2019 as the baseline year. This science-based target aligns with the Paris Agreement and was validated by the Science Based Targets initiative ("SBTi") in 2022, reflecting the company's commitment to the pursuit of net zero before 2050. Please refer to the chapter on <u>Running a</u> <u>Sustainable Business</u> for more information.



Sulphur hexafluoride ("SF<sub>6</sub>"), a gas with significant global warming potential, is an essential insulating material widely used in the electric utilities sector. While critical for ensuring the safe and reliable operation of highvoltage systems, SF<sub>6</sub> poses environmental challenges due to the potential to escape into the atmosphere over time. To address this in the short term, HK Electric has implemented robust measures to monitor and manage the use of SF<sub>6</sub> and minimise its emissions. In the longer term, we are actively exploring innovative technologies that help us move away from SF<sub>6</sub>-insulated equipment. We completed the trial test of a new type of 22-kV dry air-insulated switchgear in 2024 and put it into service in our system in Q1 2025. We have also explored the use of ester oil-insulated distribution transformer with our equipment suppliers and this kind of transformer will be ready for trial and evaluation by mid-2025.

#### Promoting RE, EVs and EE&C

Besides the coal-to-gas transition, we deploy clean energy solutions and energy efficiency measures to support the decarbonisation of our operation and the society as a whole.

To foster local RE development, HK Electric provides a Feedin Tariff ("FiT") Scheme and Renewable Energy Certificates ("RECs") as part of the company's Smart Power Services for customers.

In 2024, participation in the FiT Scheme maintained stable growth, with 135 new RE systems connected, resulting in a total capacity of 13.4 MW. Customers continued to utilise RECs to offset their GHG emissions associated with electricity. Since its launch in 2019, the REC scheme has facilitated the purchase of around 38 GWh of zero-carbon electricity.



strive towards carbon neutrality

We own and operate a 0.8-MW wind turbine known as Lamma Winds on Lamma Island. Additionally, the photovoltaic (PV) solar power systems at LPS and our other company premises contribute to a combined total installed RE capacity of 3.2 MW as at the end of 2024. Together with the RE produced from customer-side under the FiT scheme, more than 13 GWh of green electricity was supplied through HK Electric's power system in 2024.

Promoting the adoption of EVs remains a key strategy for reducing GHG emissions and improving local air quality. By the end of 2024, our vehicle fleet included 185 EVs, constituting 56% of our total vehicles. We provide a onestop Smart Power EV Charging Solution service to assist customers in implementing EV charging solutions for reducing carbon emissions and improving roadside air quality. We also continue to provide technical support for EV charging-enabling infrastructure projects under the Government's EV-charging at Home Subsidy Scheme ("EHSS"). In 2024, 40 projects under the EHSS on HK Island were completed.

Through our Smart Power Services, we also promote energy efficiency, electrification and low-carbon lifestyle via educational initiatives, funding and service offerings, reflecting our strong commitment to the community. Please refer to the chapter on <u>Serving Hong Kong</u> for more information.

# Reducing Air Emissions in Electricity Generation

To reduce air pollutant emissions, HK Electric prioritises cleaner fuel choices – natural gas and low-sulphur coal – for power generation. We employ advanced air pollution control technologies to minimise emissions of sulphur dioxide (" $SO_2$ "), nitrogen oxides (" $NO_x$ ") and respirable suspended particulates ("RSP") from our operations. These measures include the use of Selective Catalytic Reduction systems to control NO<sub>x</sub> emissions from gas-fired units, as well as low NO<sub>x</sub> combustion technologies, flue gas desulphurisation plants and high-efficiency electrostatic precipitators for coal-fired units.

Through these initiatives, LPS once again complied fully with the emission allowances specified by the Government. In the coming years, we aim to control annual emissions of  $SO_2$ ,  $NO_x$  and RSP to not higher than 0.161, 0.299 and 0.012 tonnes per GWh of electricity sold (T/GWh) respectively.

To assess the impact of emissions from LPS on local air quality, we monitor ambient conditions with six monitoring stations located across southern Hong Kong Island and Cheung Chau. The data collected is submitted to the Government and made publicly available on our website. Additionally, we conduct RSP monitoring at the perimeter of LPS.

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



## **Responsible Environmental Management**

#### Management Approach

Advancing a circular and low-carbon economy, which emphasises sustainable resource management and biodiversity protection, is vital for achieving climate goals and broader sustainable development. As outlined in our Environmental Policy, we are committed to conserving resources across our operations and encouraging stakeholders to do the same.

We integrate low-carbon practices and energy-saving measures, while minimising the use of raw materials and waste generation under the 4R principles: Reduce, Reuse, Recover and Recycle. We have set reduction targets for electricity, water and paper consumption, as well as waste generation. In addition, we adopt green building design standards, such as BEAM Plus New Buildings, for new developments.

Recognising the escalating risks of biodiversity loss, we work to mitigate the impact of our daily operations and new developments on local ecosystems through comprehensive assessments and robust monitoring systems.

To raise the environmental awareness of our employees, refresher training and talks covering various topics were arranged for them during the year.

#### **Partnerships to Protect the Environment**

In 2024, we maintained our commitment to responsible environmental management by engaging in various partnerships.





Recognising the critical importance of energy conservation, HK Electric implements energy-saving measures across the company's power operations and office buildings. We also promote EE&C to our customers and the community through our Smart Power Services.



In recent years, we have adopted several innovative strategies to lower auxiliary power consumption in our coal-fired units at LPS, including the development and integration of new energy-saving protocols to optimise the operation of high-energy-consuming equipment.

Since buildings account for a significant portion of Hong Kong's overall electricity consumption, optimising energy use within these structures is essential for the sustainable development of our city. We optimise energy use in our buildings by conducting regular energy audits, installing smart energy meters and leveraging data to enhance energy-saving strategies.

In 2024, LED lighting (142 W x 20 pcs) was installed on the ground floor of the New Machine Shop Workshop at LPS to replace older mercury high-bay lights (400 W x 20 pcs), with an anticipated annual electricity savings of >16,000 kWh

Selected mechanical ventilation and air-conditioning systems in various LPS buildings have been upgraded, with some standalone air conditioners replaced with more energy-efficient models. These efforts were complemented by the implementation of Building Management System for enhanced energy management. For the new Administration and Control Building at Lamma Extension (LMX), we have adopted an Artificial Intelligence Energy Optimisation Solution for the chiller plant, an Internet of Things system and a Smart Building Platform to enhance both operational efficiency and maintenance effectiveness.



Retro-commissioning ("RCx"), a powerful tool for improving energy efficiency in existing facilities, is part of our energysaving strategies. We have established a dedicated Task Force to evaluate RCx opportunities for our buildings. One of our key RCx projects in 2024 covered the Fire and Security Building at LPS. While this RCx project is expected to be fully completed by 2025, the electricity consumption at the building has already been reduced by 22.7% in 2024 compared to that in 2023. We have also started the RCx project for the Hongkong Electric Centre.

# ے Waste Management

HK Electric is committed to adopting circular economy principles throughout the company's project lifecycles and daily operations, focusing on minimising material consumption and reducing waste. We treat waste prevention, reduction, reuse, and recycling as top priorities to manage waste sustainably. When other waste management options have been exhausted, we dispose of our remaining waste in full compliance with relevant laws and regulations. To support these efforts, we monitor waste generation on a monthly basis, assess performance against established targets, identify areas for improvement and formulate follow-up actions. We have set targets for our main buildings and office operations regarding reducing paper consumption and solid waste. We have been awarded the Excellence Level Wastewi\$e Certificate for 18 consecutive years, reflecting our ongoing commitment to responsible resource management, waste reduction and sustainable operations.

Hazardous wastes are handled by licensed contractors under a trip-ticket system. We collaborate with a licensed contractor to re-refine spent mineral, cable and lubrication oils into environmentally friendly lubricants using Vibratory Membrane Advanced Treatment technology. In 2024, around 72,000 litres of our waste oil were recycled through this process for secondary use. We also collected over 8,500 kg of used lead-acid batteries in 2024 for recycling.

Ash and gypsum are significant non-hazardous by-products generated from coal-fired power generation. We partner with qualified third parties to recycle these materials for use in other industrial applications. As we advance our plans to transition from coal-fired to gas-fired power, we anticipate a gradual reduction in the production of ash and gypsum.

During the construction phase of new gas-fired units at LPS, we have implemented specific measures to avoid, recover, reuse, recycle, store, collect, treat and dispose of various waste streams, all in accordance with Waste Management Plans approved by the Environmental Protection Department of the Government. In 2024, our major construction projects generated around 115 kT of construction waste, with more than 99% being reused or recycled.

## More Examples of our Waste Management and Circularity Initiatives

- > We actively seek opportunities to reuse waste oil within our operations, such as collecting retired oil at LPS and reusing it to lubricate auxiliary equipment and coal unloading machinery.
- > We collect and recycle a variety of waste from our office buildings, including paper, metals, plastics, used batteries, compact fluorescent lamps and printer cartridges.
- > We digitalise our work processes wherever possible to save paper and print on used paper where necessary and appropriate.
- > We ban disposable tableware and plastic straws at our staff canteens and do not stock beverages in plastic bottles in our on-site vending machines.
- We reduce food waste by implementing meal ordering and meal planning systems, as well as separating out food waste from general waste and transforming it into fertiliser using on-site decomposers.





#### Promoting Waste Management and Circularity

To support the United Nations' World Environment Day 2024, a one-month campaign themed on waste reduction & waste management was launched in May to promote environmental awareness among our employees. Among the campaign activities, there was a new online quiz titled "Find your recycling point" to help employees get familiar with the locations of recycling facilities within the community and encourage them to practise recycling in their daily lives. We also invited representatives of the Government's Environmental Protection Department to deliver a theme talk on waste management for our employees.

# Water Conservation

We acknowledge the importance of managing water risks and seek to use water in a sustainable way. We evaluate water risks using WRI Aqueduct Water Risk Atlas, a globally recognised tool launched by the World Resources Institute ("WRI"). Our operations are located in areas with baseline water stress levels ranging from low to medium, stressing the need for responsible water management. We are guided by our Environmental Policy, which outlines practical measures to optimise water usage, including reducing consumption, reusing and recycling wastewater and minimising the environmental impact of discharged effluents. We also assess our water performance annually through the CDP Water Security survey, which helps us improve practices and track progress.

At LPS, we utilise seawater for cooling of the generation process. After use, the seawater is returned at a slightly elevated but controlled temperature, in compliance with environmental standards to minimise ecological impact. We also use municipal water for daily operations.

To alleviate pressure on local freshwater resources, we collect and reuse wastewater across various applications at LPS. We gather rainwater and plant process water to spray the coal yard, condition ash piles on barges and produce limestone slurry for use in our flue gas desulphurisation plants. In 2024, we reused over 124,000 m<sup>3</sup> of wastewater, which is equivalent to about 10% of raw water consumption of the year, and installed smart water meters to enhance our water efficiency. As we transition from coal to gas, the water consumption of our generating units and flue gas desulphurisation plants has notably decreased. As part of our commitment to water conservation, we have set our corporate water intensity target to reduce our freshwater consumption.

# Newly established corporate freshwater consumption reduction target:



per unit of electricity sold by 2029, with 2024 as the baseline year

At LPS, we treat all wastewater in accordance with local regulations to remove oil, grease, suspended solids and heavy metals. The treated effluent discharged from our on-site sewage treatment plant is disinfected. We also monitor effluent discharge in accordance with local licensing requirements. In 2024, 100% of the effluent discharged met these requirements. We have retrofitted a Brine Recovery Reverse Osmosis system to recover wastewater from one of our demineralisation plants. This compact modular system uses a two-stage reverse osmosis technology and treats water with high salt content rejected from the demineralisation plant, recovering around 70% of this wastewater for reuse. On-site storage and treatment facilities were set up for recycling wastewater during the construction of our new gas-fired units.



 A Brine Recovery Reverse Osmosis system is used to recover wastewater at Lamma Power Station.

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# Biodiversity Conservation

HK Electric integrates environmental considerations, including biodiversity, into its operations, as well as the planning and design of new and upgraded power facilities. Our Environmental Policy and Biodiversity Policy set out our commitment to protecting natural resources and conserving natural species, focusing on minimising habitat disturbance, mitigating negative impacts on natural sites and fostering awareness and engagement among stakeholders. A dedicated work instruction further guides the recognition of biodiversity in areas impacted by our operations, particularly transmission and distribution activities, while ensuring minimal disruption to sites of cultural and environmental significance.

Environmental impact assessments ("EIAs") are conducted for all our major developments, including projects such as the offshore LNG terminal, dredging of the LPS Navigation Channel and removal of overhead lines from retired parts of our electricity network. These assessments evaluate potential impacts on air and water quality, noise levels, ecological resources and socio-economic factors. Mitigation measures recommended in the EIAs are rigorously implemented, including environmental monitoring and audit programmes such as ecological field surveys to ensure marine and terrestrial ecosystems are protected.

The Marine Conservation Enhancement Fund and Fisheries Enhancement Fund, established as part of the offshore LNG terminal project, provide funding to improve marine environments in western and southern Hong Kong waters. In 2024, \$13.5 million was allocated to 9 projects aimed at enhancing ecosystems and supporting the sustainable development of local fishing industries.

HK Electric has also been dedicated to ecological conservation on Lamma Island for decades, implementing robust measures to manage air, noise, water, and light pollution while nurturing native flora and fauna. At LPS, an innovative deterrent system uses low-frequency acoustics to drive fish away from the seawater inlet culverts, protecting local marine biodiversity. Landscaping efforts contribute to ecological restoration, with additional species of native trees planted at LPS in 2024 as part of our ongoing initiatives to promote sustainability and biodiversity.



▲ Birds are easily found at Lamma Power Station.

## **Biodiversity Conservation in Hong Kong's South Side Land Rehabilitation**

HK Electric is working on the removal of overhead conductors and pylons of its decommissioned overhead transmission lines, based on conditions set out in the relevant Environmental Permit and regulations. We collaborate with the Government's Environmental Protection Department to implement the approved Ecological Management Plan. The objective of the Ecological Management Plan is to review the extent of work and verify the ecological baseline information collected within the country parks.



To protect biodiversity during these removal projects, we have implemented comprehensive mitigation measures such as minimising work areas, avoiding ecologically sensitive zones during sensitive periods and training workers on environmental conservation. All work complies with the guidelines to prevent encroachment into natural habitats and includes regular audits to ensure the effectiveness of these measures. The audit findings are documented and publicly accessible, demonstrating our commitment to environmental sustainability and transparency.

# **Education and Awareness**

#### Management Approach -

HK Electric adopts a collaborative approach to environmental stewardship, engaging stakeholders such as the Government, green groups, NGOs and social enterprises to achieve shared goals and create shared value. We work closely with these partners to raise community awareness of energy conservation, low-carbon lifestyles and sustainable practices through educational initiatives.

## Happy Green Campaign

Supported by the Smart Power Education Fund, HK Electric's Happy Green Campaign actively promotes energy efficiency, RE and low-carbon lifestyles, with a particular focus on the younger generation. In 2024, the theme continued to be "Be Chill. Be Carbon Neutral", encompassing educational activities like competitions and the use of multiple platforms such as Green TV, the Happy Green Gallery and various online channels to encourage public engagement towards Hong Kong's 2050 carbon neutrality goal.

One of the highlight activities in 2024 was the "Back in Fashion" competition, organised in partnership with the Technological and Higher Education Institute of Hong Kong (THEi). Aimed at promoting the innovative twist of unused clothes, the competition attracted over 220 entries from different groups. A catwalk finale was staged in Central Market to showcase the stylish outfits created by our talented finalists out of upcycled materials. With support from various green social enterprises such as Redress, Green Ladies and institutes such as the Hong Kong Research Institute of Textiles and Apparel (HKRITA), the competition also came with an online talk about sustainable fashion and workshops on mixing and matching upcycled clothes.

Another major initiative was the launch of the UNSDG Action Planner. Following the success of the Decarbonisation ABC activity book produced in 2022, 2024 saw the introduction of the UNSDGs Action Planner for primary and junior secondary students. Developed in collaboration with a local green group, Friends of the Earth, the planner includes weekly actions and games in support of the 17 UNSDGs. Teachers training sessions were also conducted to provide hands-on tips for bringing UNSDG concepts into classrooms while school talks were organised for students.



Catwalk Finale

During the year, over 700 schools joined the Happy Green Schools network, enjoying member school benefits including free Other Learning Experience (OLE) activities such as VR game workshops, story-telling workshops, visits to Smart Power Gallery and eco-tours to appreciate local ecology and heritage.

In the 2023-24 academic year, 89 Happy Green Ambassadors were trained to create low-carbon community maps. Ten ambassadors won prizes for their creativity and efforts in promoting green lifestyles on campus and in the community. For the 2024-25 academic year, the training has expanded to include about 100 students nominated to help disseminate green messages in engaging ways.

#### **O** Green Energy Dreams Come True

The annual "Green Energy Dreams Come True" competition continued to foster sustainable and innovative ideas from students to support sustainable developments. Shortlisted teams received up to \$50,000 in seed funding and technical mentorship, with the winning team selected from the final presentation awarded a scholarship. The winners for the 2023/2024 session included a team from Ng Yuk Secondary School for their non-electric refrigerator and a team from the University of Hong Kong for their smart garden design.

In 2024, Happy Green Campaign expanded its outreach efforts by organising an engagement lunch to collect views and suggestions from school principals, while continuing collaborations with government departments, green groups and social enterprises. Green messages were broadcast via Green TV on the campaign's mini-site and Facebook page, promoting a sustainable lifestyle in fun and engaging ways.





#### Green Hong Kong Green

Since 2005, HK Electric has partnered with the Conservancy Association on the Green Hong Kong Green ("GHKG") project, developing 12 eco-heritage routes across Hong Kong and Lamma Islands. Through organising guided tours of all these routes, GHKG aims to encourage the public to explore and appreciate the rich historical and ecological resources of Hong Kong and Lamma islands.

In 2024, the first Eco-tour Day organised since the pandemic also saw the launch of the enriched "West Town Story" route at the historic Lo Pan Temple, attended by government officials, community leaders and ambassadors from the Happy Green and U3A programmes, who delved into the Western District's fading cultural narratives. The guided tours conducted along the nine other routes successfully drew over 200 participants to learn more about local ecology and heritage.

"West Town Story" traces Kennedy Town's evolution from a colonial enclave to a bustling urban area, spotlighting significant historical and ecological spots like the Lo Pan Temple, Seven Terraces and stonewall trees. Offering a fresh perspective on the unique stories of the Western District, the new route showcased the harmony between urban development and ecosystems.

During the year, the GHKG project hosted a total of six online public tours, 18 physical tours and eight school tours, involving over 2,800 participants. Additionally, following the success of Night Safari@Lamma, a new night route incorporating a reservoir "Night Safari@Tai Tam" was introduced, focusing on exploring the nocturnal ecology of Tai Tam Country Park, while enhancing public awareness of biodiversity conservation.

A group of seasoned and professional eco-leaders was the backbone of GHKG's success. They keenly brushed up their knowledge through attending annual gathering and thematic talks, enabling them to share updates with the participants during guided tours.



### Summer-exclusive adventure: Night Safari@Tai Tam

Established in 1977, Tai Tam Country Park is the largest country park on Hong Kong Island. The clear pond water nurtures many species of animals and plants; therefore, the newly launched night route took participants to explore the fascinating nocturnal ecology of Tai Tam Country Park, especially the interesting amphibious animals and insects that are more active and easily found during their mating season in summer.

On 22 June, the inaugural public tour of this night route took place. Ray So, founder and principal instructor of Hong Kong Wild Trek, guided participants through the country park, teaching them how to locate fascinating creatures in the dark using their hearing sense and torches. Participants were captivated by this ecological adventure and the intriguing knowledge shared.











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Working with Partners



# **Serving Hong Kong**

## **Overview**

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HK Electric is committed to powering Hong Kong with cleaner, more sustainable energy while making a meaningful impact on the community. To achieve operational excellence, we have instituted Quality Management, Asset Management and Information Security Management systems, each certified according to the International Standards ISO 9001, ISO 55001 and ISO 27001 standards respectively. These certifications reflect our commitment to maintaining asset reliability and system security in accordance with our corporate policies on quality, customer service, complaint handling and security.

Our dedication to customer satisfaction remains strong, driven by continuous improvements that adhere to clear, measurable objectives aligned with our Customer Service Standards. We are committed to fostering sustainable community partnerships, ensuring that our resources and expertise not only support but actively contribute to social value across diverse programmes. This comprehensive approach ensures our contributions have enduring benefits for the community.

We have also extended our role beyond electricity supply to support Hong Kong's decarbonisation and the needy in the community through our Smart Power Services. This programme includes a variety of funding and service initiatives designed to make a long-lasting positive impact on society, which focuses on the adoption of renewable energy and electric vehicles, promotion of energy efficiency and conservation, electrification and low-carbon lifestyle. Through strategic partnerships and by leveraging our expertise, we actively promote environmental education and provide care for the elderly, assisting various sectors across Hong Kong's journey towards a smart zero-carbon caring city.



 World-class
 Serving our
 Smart Power

 Overview
 Power Supply
 Customers
 Services

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# World-class Power Supply

#### Management Approach -

HK Electric maintains a complete vertically integrated approach in its operations, which include the generation, transmission, distribution and supply of electricity, with a strong commitment to providing outstanding customer service. We operate under the SCA with the Government, which is effective until 31 December 2033. This agreement is a proven and effective framework for meeting the Government's energy policy objectives, which aim for a safe, reliable and environmentally friendly electricity supply at reasonable costs.

In 2024, we achieved a high yearly supply reliability rating exceeding 99.9999%. This record underscores our ability to deliver dependable power despite the fluctuating global energy market, thus supporting the sustainable development of Hong Kong. As part of our ongoing commitment to decarbonisation, we are increasing the share of natural gas in our fuel mix. At the same time, we remain dedicated to maintaining affordable electricity tariffs and offering targeted support to customers in financial hardship.

Our Transmission Reliability Review Committee reviews and recommends new methods, procedures and action plans to improve the reliability of our transmission system. Additionally, bi-monthly Distribution Works Co-



ordination Meetings are held to review the performance of our distribution system and monitor the effectiveness of various improvement projects. All equipment failures are thoughtfully investigated and plans are formulated and implemented to prevent reoccurrence.

In line with our relevant policies and certified management systems, 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.



### **Reliable Power System**

HK Electric is committed to providing a world-class electricity supply while advancing its energy transition goals. Through strategic investments and operational excellence, we continue to enhance system reliability, improve operational efficiency and drive sustainability initiatives. Supported by a team of skilled and experienced professionals, we adopt a proactive approach to maintaining the robustness of our power system, ensuring prompt responses to service interruptions, minimising customer inconvenience and providing necessary emergency support. To meet the growing expectation of a reliable electricity supply, we are systematically modernising our generating capacity. Ageing coal-fired units are being replaced with advanced gas-fired units, which offer higher efficiency and lower emissions. Additionally, we have begun replacing ageing oil-fired open-cycle gas turbine units with new ones to ensure generating security during contingencies. We also invest in expanding our power network and enhancing its reliability.

### **Investing in Power Network Expansion and Reliability**

Our commitment to delivering one of the most reliable transmission and distribution networks globally is supported by the use of advanced technology.

#### **Network Expansion**

To accommodate new electricity demand and further enhance the quality of our power supply, we continue to invest in the expansion and upgrade of our power network. In 2024, we energised our first 275-kV transition joint. Additionally, we implemented cable-fluid remote-monitoring systems to monitor the hydraulic pressure of more than 400 network sections, including all generation circuits and some critical 275-kV and 132-kV circuits. The second stage of the project, covering major portions of transmission fluid-filled cable sections on Hong Kong Island and at Ap Lei Chau, is in progress and will be commissioned in early 2026. During the year, we commissioned 31 new distribution substations.

### **Operational Excellence**

To ensure the primary and secondary equipment are timely repaired and replaced, our operation teams utilise remote monitoring systems, real-time control solutions and early detection diagnostic techniques. Our 24-hour System Control Centre, together with an operational team operating at 24/7, ensures a safe, efficient and reliable electricity supply even at extreme weather condition. Using advanced real-time energy management tools with smart-grid functionalities, including the Energy Management System (EMS) and Distribution Management System (DMS), we monitor and control power generation, transmission and distribution across our network.



#### **Emergency Preparedness**

To maintain operational readiness and respond effectively to emergencies, we conduct semi-annual changeover drills for our backup EMS and DMS. These systems undergo regular reviews and updates to ensure cybersecurity compliance with international standards. We also have robust contingency plans in place to handle crises such as natural disasters, security incidents or unforeseen disruptions. A comprehensive restoration plan ensures the timely recovery of our power system in the event of major service interruptions.

Serving our Smart Power Customers Services

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### **Enhancing Supply Reliability Amidst Climate Challenges**

With more frequent extreme weather events brought on by climate change, HK Electric has implemented robust measures to strengthen its power network, ensuring a stable electricity supply. These enhancements include fortified infrastructure at LPS and advanced anti-flooding measures at substations.

Making reference to the reports of the Intergovernmental Panel on Climate Change (IPCC) and the city's hydrological and astronomical data and forecasts, key upgrades include constructing or extending flood walls to +6.0 metres Principal Datum (PD) for substations in coastal areas and establishing new design guidelines for primary substations built after June 2022 to ensure they are capable of withstanding flood levels of +7.0 metres PD. The same design was adopted in new distribution substations unless it is justified with a flooding impact assessment that a lower level but not less than +6.0 metres PD can be accepted. It is worth pointing out that a level of +7.0 metres PD means a level of about 6 metres higher than the normal seawater level in Hong Kong. Protective features such as automatic water pumps, flood walls or gates, and multi-stage alarm systems have also

been installed in over 280 facilities in vulnerable locations in the past decade.

At LPS, new critical generating units, including L12 and L13, have adopted an elevated foundation design of +7.0 metres PD, with additional breakwaters and demountable floodgates safeguarding against storm surges and overtopping waves at other areas with a lower ground level. Enhanced surveillance and rapid response protocols ensure operational reliability during adverse weather.

These initiatives demonstrate HK Electric's commitment to maintaining a stable and reliable power supply, even under severe weather conditions, contributing to enhancing the community's resilience. For further details on these climate adaptation and resilience efforts, please refer to the chapter on <u>Running a</u> <u>Sustainable Business</u>.



Risk monitoring ap	proach	Assets: Typic	cal measures			Purpose
Condition monitoring						ection of incipient faults to tential component failure
and advanced diagnostic techniques 〈 for network			<b>11-kV distribution cables:</b> Very-low-frequency monitored withstand test		<ul><li>Early detection of water ingress</li><li>in cable insulation layer to avoid potential cable faults</li></ul>	
components	LV network: LV Fault Indicate			Improving efficiency of fault identification and trouble shooti		
Health Indices register and other risk indicators for network components		Formulation of and indicators for and secondary a switchgears, tra and remote term	or primary assets (e.g., nsformers, relays,	>		efurbishment or nent to avoid equipment
024 Preventive	and Co	rrective Actio	ons			
<b>0</b> 11-kV cable faults rere averted;	• •	ntially faulty bles were removed;	429 cables were	e te	ested;	<b>26</b> weak cable components were identified for replacement;
0 11-kV and <b>37</b> LV fault placed and dissected for partial discharge, water orks or termite attack; ar	identifying fai ingress and da	lure modes such	indicator were re	pla	ced and c	with poor health index or risk lissected for revealing defects is factor in the cable circuit.

## Physical and Information Security

HK Electric has established comprehensive management systems to safeguard its facilities and information assets against physical and cybersecurity threats.

#### **Physical Security**

Our Physical Security Management System proactively identifies potential risks and implements preventative measures that are regularly monitored and reviewed. To protect the company property, HK Electric enforces security zoning and employ advanced access control measures, including facial recognition, car-plate recognition, two-factor authentication, video analytics and automatic detection of open access doors.

We respect human rights as articulated in our Human Rights Policy. Our Physical Security Management System Manual mandates that Fire and Security personnel receive training on human rights, personal data privacy and related topics. All our security personnel have undergone formal training on our policies and specific procedures pertaining to human rights and applicable to security.

We regularly assess the fire hazard of our generation equipment and transmission and distribution cable systems and implement necessary enhancements. As part of our fire risk mitigation efforts, we have installed protective fire blankets over all high-voltage 275-kV and medium voltage 11-kV cables, as well as communication cables inside the cable compartment of the Ap Lei Chau Bridge. These enhancements have significantly lowered the risk of fires, safeguarding our infrastructure and maintaining a stable power supply.





#### Cybersecurity

HK Electric has established a robust governance structure to safeguard the confidentiality, integrity and availability of its critical infrastructure and information assets. Our Information Security Policy is designed to protect against security threats – whether internal or external, deliberate or accidental.

To address cybersecurity comprehensively, we have implemented a Cybersecurity Management Framework based on a "defence-in-depth" approach. Managed by an in-house team of specialists in collaboration with external service providers, the framework spans technical, regulatory and managerial dimensions. It incorporates multiple layers of security to detect, protect against, respond to and recover from cybersecurity threats.

We conduct regular cybersecurity training to strengthen awareness and preparedness. This includes mandatory phishing awareness training for employees who show insufficient understanding of phishing threats during quarterly phishing drills. Additionally, all new employees are required to complete comprehensive training on our cybersecurity policies and procedures, followed by a quiz to reinforce their knowledge. To ensure they remain vigilant and informed, employees have access to a dedicated "**Cybersecurity Corner**" on our Corporate Intranet Portal to stay informed about relevant news, and to refresh their knowledge by reviewing videos and other educational materials.
Our System Operations Cybersecurity Incident Response Plan is designed to identify, classify and address reportable cybersecurity incidents, ensuring a structured and efficient response to potential threats. Additionally, we have established recovery procedures for critical IT systems, aligned with our comprehensive Crisis Management Plan, to maintain operational resilience in the face of disruptions.



▲ We provide cybersecurity training for our employees regularly.

For industrial control systems, we adopt operational measures inspired by the seven strategies of defence recommended by the United States Department of Homeland Security. To defend our information assets from unauthorised access and malicious attacks, we deploy advanced security systems, including:

- Next-Generation Firewalls and Intrusion Prevention Systems
- Advanced Persistent Threat Protection Solutions
- Mail Gateways
- Anti-malware Systems
- Multi-factor authentication (MFA) solutions
- Security information and event management (SIEM) systems
- Distributed-denial-of-service (DDoS) protection.

These measures demonstrate HK Electric's commitment to safeguarding its digital infrastructure and ensuring secure, reliable and sustainable power delivery. During the reporting period, there were no incidents of noncompliance with cybersecurity standards or regulations.

## **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 International Standard ISO 27001.

## Cybersecurity Incident Responses Drill

In July 2024, HK Electric conducted a drill simulating a cybersecurity attack leading to a personal data breach. The exercise tested response protocols, evaluated detection and containment measures and ensured seamless coordination among teams. Successfully executed, the drill highlighted the resilience of our systems, the preparedness of our personnel and the effectiveness of leadership in crisis management.

# Alleviating Economic Hardship

HK Electric is committed to delivering affordable and sustainable energy solutions to the Hong Kong community. Under the SCA, we have implemented mechanisms to ensure electricity tariffs remain reasonable while maintaining high standards of reliability and environmental performance. With international fuel prices dropping from record highs, the Average Net Tariff for January 2024 reduced by 16% compared with that for January 2023.

Through the Smart Power Services, we support diverse community groups through targeted subsidy initiatives that promote energy affordability and efficiency. By addressing specific needs, we aim to reduce financial burdens, enhance energy access and foster a more inclusive and sustainable community. For more details, please refer to the section on Smart Power Services.



# **Tariff Adjustment for 2025**

HK Electric has announced an adjustment in the Average Net Tariff to 167 cents per unit of electricity for January 2025. This adjustment represents a modest increase of 1.5 cents, or 0.9%, from January 2024. This necessary adjustment is primarily due to the capital investments required for replacing power generation, transmission and distribution equipment with their useful lives expired. These investments, coupled with rising operational costs and the need to enhance system resilience against increasingly frequent extreme weather events, contribute to the upward pressure on electricity tariffs.

Adjustments from Period of January 2024 to January 2025Basic Tariff<br/>(@/kWh)Fuel Clause Charge<br/>(@/kWh)Average Net Tariff<br/>(@/kWh)119.5 > 122.9Fuel Clause Address<br/>(@/kWh)Average Net Tariff<br/>(@/kWh)165.5 > 167.0Image: Clause Address<br/>(@/kWh)Image: Clause Address<br/>(@/kWh)

In 2025, our green and caring initiatives will continue and a budget amounting to over \$70 million has been allocated for this purpose. These initiatives include supporting NGOs, schools and other non-residential customers to improve energy efficiency, distributing cash coupons to underprivileged families, subsidising sub-divided-units ("SDUs") for the installation of tariff meters and providing tariff subsidies to needy SDUs. This increased investment reflects our ongoing commitment to enhancing the quality of life for our community members and leading the way in environmental stewardship.



# **Serving our Customers**

## Management Approach -

HK Electric remains dedicated to providing high-quality customer service through reliable electricity supply and responsive support. Our focus is on exceeding customer expectations by continuously improving our services and maintaining open and transparent communication, guided by our Customer Services Policy and Complaints Handling Policy. To reinforce this commitment, we have achieved the International Standard ISO 9001 certification, which recognises the quality of our customer services, inspection services and metering processes.

Clear and measurable Customer Service Standards have been established to monitor key areas, including electricity supply, new connections, account management,

The Care We Show to the Community

#### metering, customer inquiries, emergency services and overall satisfaction. These performance metrics are closely monitored and managed by the Customer Services Steering Committee, while the Stakeholder Satisfaction Steering Committee ensures efficient resolution of any customer concerns or complaints. Customers can easily access information and services through multiple channels, such as our website and the HK Electric App.

Protecting customer data is a cornerstone of our operations. We adhere to the Personal Data (Privacy) Ordinance through our Personal Data Privacy Policy and ensure robust privacy protections via our comprehensive Privacy Management Programme, supported by regular reviews and monitoring.

# **Excellent Service**

The customer service team at HK Electric is dedicated to exceeding expectations by ensuring every customer feels valued and supported. In 2024, we achieved or surpassed all 18 pledged Customer Service Standards and earned recognition through several prestigious customer service awards.

We value feedback from our customers and stakeholders as an essential part of our commitment to continuous improvement and service excellence. Our Complaints Handling Policy provides a structured approach to ensure all complaints are addressed promptly, fairly and transparently. By listening to concerns with sincerity and investigating issues thoroughly, we aim to provide practical resolutions while using complaints as opportunities to enhance our operations and strengthen trust with our stakeholders. The Stakeholder Satisfaction Steering Committee closely monitors complaints, tracks trends and identifies emerging issues. In 2024, we received one customer complaint related to our service, which was addressed according to established procedures to ensure fair and thorough resolution.

Understanding the growing demand for self-service options, we have expanded our range of online platforms to provide customers with more convenient ways to manage account-related matters. In 2024, the electronic application process for opening and closing electricity accounts was streamlined, saving customers time and effort during relocation. Customers can also enquire about the current status of their applications via an online portal. On the electronic payment side, mobile wallet payment options have been expanded for bill settlement via the HK Electric App, and residential customers can arrange bank autopay online, meeting the evolving needs of our customers.



To ensure the needs and expectations of our customers are met, HK Electric conducts regular satisfaction surveys covering areas such as customer service, electricity supply, maintenance and account management. These surveys allow us to gather valuable feedback, identify areas for improvement and implement measures to enhance our services.

Average Custom	er Satisfaction Inde>	(5-Point Scale)
	E U	E CO
2022	2023	2024
4.7	4.7	4.8

As at the end of 2024, HK Electric achieved a significant milestone with the deployment of more than 480,000 smart meters, covering approximately 80% of our customers. By gaining access to more detailed energy consumption data, our customers can manage their electricity usage more effectively. We target to complete our full-scale deployment of smart meters by 2025. To encourage the use of smart meter data within the company, a cross-divisional taskforce was also established to leverage their expertise in enhancing the accuracy of detection algorithms.

During the year, the Advanced Metering Infrastructure ("AMI") Head-End System was also upgraded to enhance connectivity with meters used by our commercial and industrial customers. This upgrade extends our AMI platform's capabilities to include non-residential customer segments, thereby providing additional opportunities for us to streamline operations. In tandem with these developments, our Meter Data Management System was also enhanced to accommodate billing processes for nonresidential customers.

Smart Meter - Optimise Energy Use Part 1 Smart Meter - Optimise Energy Use Part 2



# 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 HK Electric 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 Centre**

Comprehensive services for business start-ups and energy management



#### 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



#### For the Needy

Offer Concessionary Tariff Schemes for the elderly, the disabled, single-parent families and the unemployed who are qualified for public assistance

# **Connecting with our Customers**

We actively engage with our customers through a variety of channels, fostering two-way communication to better understand and respond to their needs. By considering customer feedback, we continually work to enhance service quality. Additionally, we strive to be inclusive by addressing and overcoming barriers related to language, culture or literacy to ensure that all customers can access our services seamlessly. We maintain ongoing communication with our customers, actively gathering their feedback through multiple platforms such as our company website, social media channels and both virtual and in-person interactions.

The Customer Liaison Group ("CLG") plays a pivotal role in facilitating dialogue, offering a platform for exchanging ideas and understanding public perspectives on key issues. In 2024, the CLG consisted of 43 members, including representatives from the customer community, district councils and various community organisations. Over the course of the year, a combination of online and face-toface meetings was held to provide updates on HK Electric's latest initiatives and developments, fostering stronger connections with stakeholders.

# Personal Data Protection

At HK Electric, safeguarding personal data and ensuring information security are top priorities. Our approach is guided by robust policies, internationally recognised standards and a commitment to continuous improvement. We strictly adhere to our Privacy Policy Statement and Personal Data Privacy Policy, ensuring full compliance with the Personal Data (Privacy) Ordinance and relevant industry guidelines.

During the year, we organised a privacy awareness activity for all employees, which included an in-house video training session focused on safeguarding data security. The activity aimed to enhance employees' knowledge and awareness of personal data protection. Participants completed the training video along with a post-training exercise to reinforce key concepts and best practices.

# Strengthening Privacy and Data Security

HK Electric demonstrates its unwavering commitment to protecting personal data, ensuring information security and fostering a culture of privacy awareness within the organisation.

#### Data Security Measures

We have enhanced data security with strong access controls, including a Data Loss Prevention system that prevents unauthorised disclosure of personal data through the Internet, emails, portable storage devices or file transfers. Automated incident procedures and response plans are in place for swift action in case of data breaches. We conduct regular drills to strengthen the effectiveness of our crisis plans and procedures.

#### Privacy Management Programme

We have implemented a comprehensive Privacy Management Programme, conducting annual personal data reviews and privacy impact assessments. Overseen by our Personal Data Protection Officer with support from our Customer Personal Data Protection Officer and Employee Data Protection Officer, this programme strengthens data controls, ensures compliance with privacy laws and promotes a privacyconscious culture.

## Guidelines for Personal Data Collection

Recognising the evolving privacy risks in today's technological landscape, we have proactively updated our Guidelines for the Collection of Personal Data. These guidelines aim to educate employees on responsible data collection practices across all operations, ensuring that privacy remains a top priority as we adapt to digital advancements.

# **Smart Power Services**

Given that buildings account for a significant portion of Hong Kong's energy demand, promoting EE&C and empowering the community to embrace sustainable practices is critical to lowering the city's energy intensity and carbon emissions, contributing to a greener future.

HK Electric has implemented a range of funding and service schemes, known collectively as Smart Power Services ("SPS"), helping customers and the community in decarbonisation through embracing EE&C, the wider use of electric vehicles and construction site electrification, RE and low-carbon lifestyle. Under the SPS, a Smart Power Care Fund was established to support initiatives aimed at helping those in need. For example, subsidies are provided for underprivileged families, NGOs, schools and SMEs to adopt energy-efficient electrical appliances and equipment.

In 2024, the SPS continued to provide tailored assistance to different sectors, including customers, businesses and NGOs. Through subsidies, technical support and education, the SPS enabled participants to go green and improve living quality. Focus areas include:





 Our Smart Power Gallery offers physical and virtual tours providing education on carbon neutrality and smart city concepts.

Since its launch, SPS has contributed to reducing Hong Kong's carbon footprint and supporting the city's climate goals. By empowering customers with practical tools and resources, HK Electric demonstrates its ongoing commitment to building a more sustainable and energyefficient future for all. We actively promote awareness of the SPS and engage with stakeholders through multiple channels, such as our company website, YouTube channel, mobile app, hotline, bill messages and email services.

To ensure an inclusive transition to a low-carbon economy, we provide support for vulnerable groups, such as underprivileged households and SMEs, helping them adopt energy-efficient practices and reduce their carbon footprint. Through these efforts, we aim to empower the community and foster sustainable development for all.

# **Enhancing Support for a Carbon-neutral Community**

HK Electric is advancing energy efficiency and affordability in the community through its SPS. A prime example is our support for Everest Residence, Hong Kong Island's first Modular Integrated Construction transitional housing project. By providing grid-electricity supply during construction and subsidising energy-efficient electrical appliances, we have significantly reduced the project's carbon footprint and enabled low-carbon, all-electric living, lowering energy costs for underprivileged families.

Including Everest Residence, we have supported eight transitional housing projects on Hong Kong Island, benefitting over 260 units capable of accommodating approximately 800 residents.

On the other hand, we will also offer one-stop services to support nonprofit-making NGOs and schools in implementing energy efficiency improvements and adopting RE. Starting from 2025, each eligible building can receive up to \$3 million in subsidies to install energy-efficient equipment, adopt solar photovoltaic technology or apply energy-saving rooftop paints to reduce indoor energy usage. Additionally, eligible nonresidential customers can receive up to \$400,000 in subsidies to switch to energy-efficient electric cooking stoves, water heaters and dryers. It is estimated that 60 to 100 projects will benefit from the scheme in 2025.



<u>Smart Power Services:</u> <u>Supporting Transitional Housing Project</u>

	World-class	Serving our	Smart Power	Caring for the
Overview	Power Supply	Customers	Services	Community

	Smart Power Building Fund Subsidies for building owners to enhance energy efficiency of communal building installations (\$25 million allocated annua	services	1.1	were approved representing d ~ <b>\$45</b> million in subsidies.
	Smart Power Energy Audit Free energy audits for non-residential cu to help identify energy saving potential	stomers	216 free energy	audits were conducted.
Energy Efficiency Efficiency Efficiency Efficiency Efficiency Efficiency Efficiency Efficiency Efficiency			<b>3</b> major banks have participated in the loan provision.	
	Smart Power EV Charging Solution One-stop service for customers to implement EV charging solutions		Completed EV charging-enabling infrastructure installation works for <b>40</b> car parks and assisted customers in applying for the Government's EV-charging at Home Subsidy Scheme (EHSS).	
	Smart Power for Construction Site One-stop service to timely provide grid-electricity supply for construction sites		<b>20</b> construction sites were supported to adopt grid-electricity supply to replace diesel generators.	
	Feed-in Tariff Scheme Purchase of electricity generated by cust grid-connected RE power systems at Fee Tariff rates		made. (Please se	er renewable installations were e the chapter on <u>Performance</u> or total installed capacity.)
newable Energy			<b>Over 660</b> certific ~ <b>8.7</b> GWh.	cates were issued covering
Green	Smart Power Education Fund Promoting EE&C, RE and low-carbon life through our Happy Green Campaign (\$5 allocated annually)	-		pants were recorded in various see the chapter on <u>Sharing our</u> nformation.)
pporting e Needy	Providing services, advice and fa financial assistance to help – the disadvantaged (including households living in SDUs), – customers and the community adopt low-carbon and smart – lifestyles and improve living	Energy-effic Subsidy Pro	ity Charges Relief ng Subsidy	<ul> <li>87 NGO community centres benefited from the NGO Catering Subsidy Programme</li> <li>94 projects were approved under: <ul> <li>Energy-efficient Equipment Subsidy Programme</li> <li>Energy-efficient Community</li> </ul> </li> </ul>

Underprivileged

to the community

# **Caring for the Community**

## Management Approach

At HK Electric, caring for the community is a cornerstone of our corporate values. We dedicate our technical expertise, volunteer efforts and resources to assist those in need, fostering meaningful connections and long-term social benefits. For decades, we have collaborated with leading NGOs on elderly care and environmental education, cocreating positive and lasting impacts on society.

Our community initiatives are guided by our Sustainability Policy as well as the Media, Stakeholder Engagement and Community Investment Policy. These frameworks ensure that our contributions are thoughtful, culturally sensitive and align with our core values and sustainability objectives, maximising their effectiveness and relevance to the communities we serve.

In 2024, HK Electric was proud to be recognised for its ongoing dedication to social responsibility by receiving the "10 Years+ Caring Company Logo" from the Hong Kong Council of Social Service. This achievement reflects our sustained efforts in supporting the community and promoting a culture of care and inclusivity.

# Caring for our Elders

The "CAREnJOY for the Elderly" programme remains one of HK Electric's key community initiatives, designed to support single elders and their carers in partnership with nine elderly service NGOs.

Leveraging the company's electrical expertise, five districtwise talks were organised throughout the year, educating over 600 seniors on electrical safety at home, planned power outages, and handling voltage dips. In addition to promoting home electrical safety, four outings were arranged under the "Fun & Joy" initiative, taking more than 500 single elders and their carers to enjoy various activities and encouraging them to socialise and connect with society.

# **FUN & JOY FOR ELDERS**

Riding on the success in 2023, HK Electric doubled the number of outings under the "**Fun & Joy**" initiative in 2024 to encourage single elders to keep socially engaged. During the year, the following activities were organised:

- 4 100 elders enjoyed a nostalgic ride on an open-top tram, learning about the history of Hong Kong and HK Electric.
- 80 elders had their portraits professionally taken at a photography studio, followed by a visit to The Mills, a revitalised mill-turned-thematic shopping mall.
- Nearly 300 elders and their carers shared a delightful cinematic experience during a movie day in August.
- Around 60 elders visited Ocean Park in November, immersing themselves in the vibrant and joyful atmosphere at the theme park.

The "**Fun & Joy**" underscores our ongoing commitment to enriching the lives of the elderly through meaningful and fun-filled experiences.



# Golden Third Age

The U3A ("University of 3<sup>rd</sup> Age") Network of Hong Kong, jointly established in 2006 by HK Electric and the Hong Kong Council of Social Service, has been running for 19 consecutive years. The programme aims to promote lifelong learning and enhance the overall well-being of retirees by encouraging them to stay mentally and physically active, pursue their interests and continue contributing to society.

In 2024, more than 600 courses and classes were organised, creating about 15,000 learning opportunities for retirees to expand their knowledge and skills.

Through various initiatives, HK Electric demonstrates its unwavering commitment to empowering seniors, promoting lifelong learning and helping address the needs of the ageing population in Hong Kong.

## **Celebrating Achievements and Showcasing Aspirations**

The U3A Annual Recognition Ceremony 2024 celebrated the remarkable achievements of outstanding centres and student leaders. Teams from the U3A Dream+ scheme also showcased the impressive outcomes of their dream projects, highlighting the vibrant energy and creativity of the young-old to benefit 66 community units and 9,570 people in the community. The scheme received the Silver Award for Corporate Social Responsibility at the prestigious 20<sup>th</sup> China Golden Award for Excellence in Public Relations. This esteemed event was co-hosted by the Hong Kong Public Relations Professionals' Association and the China International Public Relations Association.



#### **Sharing Inspiring Journeys**



**D** U3A Dream+ Here We Go

To share how U3A contributes to active ageing in Hong Kong, an interview series on Metro Radio was arranged to introduce the touching stories of three distinguished teams from the U3A Dream+ scheme.

#### Smart Power Ambassadors Training 2024

The biennial Smart Power Ambassadors Training returned in September, attracting over 80 senior participants to learn more about "Embracing Technology for Smart Ageing". This training provided local retirees with a unique opportunity to delve into AI and sustainable development through activities such as immersive sessions on sustainable living, smart ageing practices and a low-carbon lifestyle, a study tour to the Greater Bay Area on smart retirement.



#### **Engaging with Community Partners**



HK Electric hosted an engagement gathering with community partners focused on elderly services, bringing together NGO leaders to exchange ideas and feedback. Participants also learned about the company's sustainability initiatives, fostering closer collaboration in serving the elderly and other people in need.

## Giving to Good Causes

In 2024, we remained committed to supporting a wide range of charitable causes by providing sponsorships and donations. These efforts benefited students from low-income families, NGOs, environmental groups and community organisations.

During the year, we supported 111 projects, focusing on various objectives:

- Fostering relationships with stakeholders and building goodwill in the community;
- Promoting EE&C, environmental protection, climate change mitigation, and public awareness of electricity market issues;
- Supporting research in energy technologies;
- Contributing to emergency relief efforts and other worthy causes;
- Garing for the elderly and the under-privileged;
- Fromoting occupational health and safety.

Additionally, the HK Electric Centenary Trust provided funding to the U3A programme to empower local retirees, and awarded scholarships to financially disadvantaged



secondary school students with academic merits. The recipients were recognised at the HK Electric Scholarship Presentation Ceremony held in July 2024.

Through the Lamma Fund, established by HK Electric to enhance the environment and facilities on Lamma Island, the company supported tree caring, hill-fire prevention, and coastal clean-up services in 2024.

Please refer to the section on <u>Smart Power Services</u> for more information about HK Electric's programmes to support people-in-need.

# **HK Electric Volunteers**

At HK Electric, we actively promote volunteerism among our employees to uphold our core value of caring for the community.

#### K Electric Volunteers Team 20<sup>th</sup> Anniversary

The HK Electric Volunteers Team, which celebrated its 20<sup>th</sup> anniversary in 2024, continues to focus on two key areas: elderly care and environmental protection, while expanding its scope of service to address other social needs. Over the years, the Team has grown to include more than 1,000 members, and in 2024, our volunteers contributed a total of 3,939 service hours across 35 service projects.

In collaboration with the Housing Society, the Volunteers Team performed electrical safety inspections for more than 40 single elders living in public housing estates.

During the year, the Volunteers Team partnered with five new organisations to serve vulnerable groups, individuals with intellectual disabilities, disadvantaged girls, people recovering from mental illness, and children with special learning needs, promoting care and inclusion within our community, and supporting the United Nations' Sustainability Development Goals.

For the third year in a row, the Volunteers Team worked out St. Barnabas' Society and Home, serving at their central kitchen every Saturday to assist in making meals for over 4,000 homeless and needy individuals each year.

# "Show Me Your Love" to celebrate 20 years of community care

To commemorate the 20<sup>th</sup> anniversary of the Volunteers Team, a special programme – "Show Me Your Love Challenge" was rolled out in 2024, with Company funding.

20 mini love projects initiated by our volunteers for causes close to their hearts, benefiting more than 1,200 individuals and 300 animals in need.



# Co-creating Shared Values

Running a Sustainable Business Sharing our Planet Serving Hong Kong

# Working with Partners



# **Working with Partners**

# **Overview**

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Our Vision to excel in the power business in Hong Kong is supported by our employees, contractors and suppliers, who play a vital role in helping us maintain safe and responsible business practices. We understand the importance of a resilient workforce in achieving our Vision and thus prioritise creating a rewarding and supportive work environment. By fostering teamwork and open communication, we enable our staff to reach their full potential. Our comprehensive wellness programmes and commitment to professional development, guided by our Learning and Development Policy, reinforce this support.

We are dedicated to a workplace free of accidents, underscored by our Health & Safety Policy, which is rigorously reviewed every two years by our Health & Safety Board. This policy drives the integration of safety practices into every business facet, focusing on risk reduction and strict adherence to legal and regulatory standards.

Our operations, encompassing power generation, transmission, distribution and infrastructure development, are all aligned with the International Standard ISO 45001 for safety management. Additionally, our Asset Management Systems conform to the International Standard ISO 55001. These systems play a crucial role in protecting not just our workforce and contractors but also our customers and the public. Regular third-party audits confirm the reliability of these systems.

As a committed corporate citizen, we hold our business partners to the same high standards embedded in our Core Values, aiming for collective progress towards sustainable development. Our Code of Practice for Suppliers sets strict criteria for ethics and governance, human and labour rights, health and safety, environmental protection and climate action, and physical and information security. Our procurement processes are aligned with the International Standard ISO 20400 Sustainable Procurement – Guidance, embedding sustainability into every purchasing decision.

In line with our Human Rights Policy, which applies to all our employees, we uphold international human rights principles and expect the same commitment from our partners and suppliers, encouraging them to adopt similar standards and practices. Our Anti-harassment Policy outlines the Group's policies and procedures regarding harassment and sexual harassment in the workplace and work-related events.

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Management and Overview Development

and Respecting Development Human Rights R Health & Su Safety M

Responsible Supply Chain Management

# **Human Capital Management and Development**

**Human Capital** 

# Management Approach -



Our Human Resources Steering Committee, established in 2017, oversees the implementation of our human resources strategy – SHINE – and is responsible for guiding our continuous efforts in nurturing a harmonious and productive workforce. The acronym SHINE stands for Synergy, Holistic development, Ideal workplace, Nurturing future leaders and Excellence. The Committee provides strategic direction and oversight of all human resources initiatives to ensure alignment with the company's strategies and goals. It develops and monitors policies to comply with laws and best practices, facilitates talent management and succession and monitors the competitiveness of compensation and benefits.

Recognising the value of its workforce, HK Electric actively seeks to attract and retain top talent, focusing on experienced professionals as well as young individuals entering the power sector. This commitment is reflected in our strategic human resource initiatives that align with our goals for recruitment, training, development, utilisation and retention of talent. To enhance the technical and nontechnical competencies of our people, we employ robust training systems that facilitate knowledge transfer from experienced to younger employees, thereby improving both professional and cross-disciplinary capabilities. Training and guidance are vital for employee development, particularly throughout the course of green energy transition. We align our initiatives with our Learning and Development Policy, and Promotion and Transfer Policy, providing resources for long-term career growth while partnerships with industry leaders and academic institutions further enrich learning experiences and equip our workforce to meet future challenges.

We prioritise effective communication and employee wellbeing as cornerstones of our workplace culture. To foster open dialogue, we hold regular meetings with the Joint Consultation ("JC") Committees and conduct quarterly focus group sessions, ensuring employees have a platform to voice their ideas and concerns. We also have a formal grievance procedure to promptly address and resolve employee concerns. We care about the well-being of our employees and strive to provide a safe, healthy and supportive workplace for them. Through these initiatives, we aim to build trust, enhance collaboration, and ensure that every employee feels valued and heard. To incentivise excellence, we adopt a pay-for-performance approach, offering competitive remuneration, discretionary bonus and benefits packages, which are benchmarked annually by referring to industry trends and comparable organisations' practices. Please visit our corporate website for more details on remuneration and benefits.

# Attracting and Retaining Talent

In today's dynamic economic and social landscape, the demand for new skills, professionalism, and adaptability is more critical than ever. We conduct annual workforce planning exercises to assess our staffing needs over the next decade, ensuring that our workforce possesses the necessary skills and expertise for long-term business sustainability.

To attract a diverse range of talent, we actively collaborate with industry organisations and academic institutions. These partnerships enable us to effectively promote our career opportunities and strengthen our employer brand. Besides, we have expanded our talent search to Mainland China and successfully recruited 12 professionals in engineering, finance, IT and logistics in 2024. We also value the power of our internal network and encourage our employees to refer qualified candidates through our Employee Referral Scheme. A reward is given to each employee who has made a successful referral to recognise his/her contribution to building a collaborative and talented workforce.

Since 2015, HK Electric has implemented the E-Buddy Programme to help new employees integrate smoothly. Each newcomer is paired with a trained E-Buddy, an experienced colleague who provides guidance and support during his/her probation period. In 2024, 69 E-Buddies were nominated from various business units to ensure a successful start for the new hires.

Our company is committed to sustainable labour practices by ensuring fair pay and implementing a payfor-performance system. We believe in compensating our



employees equitably, reflecting their skills, experience, and contributions. Our pay-for-performance model rewards employees based on their contributions, including achievements against targets and demonstrated competencies, fostering a culture of excellence and motivation. To remain competitive in talent retention, we regularly review our compensation, benefits and rewards policies. We also focus on refining job design and improving working conditions to enhance employee engagement and performance across all levels of the organisation. By creating a supportive and inclusive work environment, we aim to meet the diverse needs of our workforce, ensuring opportunities for growth, development, and a positive organisational culture for professionals at every stage of their careers.

We are committed to fostering a workplace environment free from discrimination or harassment, embracing diversity in race, ethnicity, religion, gender, age, sexual orientation, and all other protected statuses. We welcome individuals from all backgrounds, valuing the unique perspectives and experiences they bring to our team.

We publicise of career opportunities at HK Electric by engaging with students at local universities and other tertiary institutions through career fairs and recruitment presentations. Young individuals are encouraged to gain practical experience by participating in our trainee and internship programmes. Furthermore, we actively work to establish strong relationships with tertiary institutions and seek inclusive methods to identify and attract the talent crucial for our continued success.



# **Attracting Young Talent**

#### **Career Fair and Expo**

HK Electric aims to attract and nurture new talent by participating in various virtual and in-person career fairs organised by local universities. These events allow us to engage directly with students, enhancing our employer brand and promoting of our Trainee Programmes and entry-level opportunities. We also participate in the E&M Expo 2024, organised by the Hong Kong Electrical and Mechanical Industry Promotion Working Group, to inspire and recruit new apprentices in the electrical and mechanical sectors.

#### Career Talk

We deliver recruitment talks at local universities and other tertiary institutions, both online and on campus, to connect with prospective candidates and share insights into our company culture and career pathways. In 2024, these comprehensive recruitment efforts culminated in the successful onboarding of seven new Graduate Trainees and seven Trainee Technicians at HK Electric, reflecting our commitment to developing the next generation of professionals in our industry.

#### **Industrial Placement**

Our Industrial Placement Programme offers valuable opportunities for third-year Bachelor's degree students and second-year Higher Diploma students in fields related to information technology (IT) to gain practical experience in real-world settings. This initiative equips participants with the skills needed for their future careers while enhancing their academic learning. In 2024, we recruited two students from the Bachelor's degree programme, with one of them having an ethnic minority background. Additionally, two students we recruited from the Higher Diploma programme in 2023 advanced to their second year of training.

#### **Industrial Attachment**

Our Industrial Attachment Programme offers valuable opportunities for second-year Higher Diploma students in fields related to Electrical Engineering to gain practical experience in real-world settings. This initiative equips participants with the skills needed for their future careers while enhancing their academic learning. In 2024, we recruited two students for industrial attachment.

#### **Vacation Trainee Programme**

Our Vacation Trainee Programme provides participants with hands-on experience and insights into industry challenges, enriching their summer break while allowing them to apply their academic knowledge in a professional context. By working in a real-world environment, students can deepen their understanding of industry practices and develop essential skills to support their future careers. In 2024, we welcomed 29 students from Bachelor's and Master's degree programmes across various disciplines, including engineering, architectural studies, IT, business, environmental science and journalism, joining this programme.



# **Opportunities for Growth**

At HK Electric, we prioritise skills and safety training to enhance technical and functional competencies across our workforce. In line with our Learning and Development Policy, we provide ongoing upskilling and professional development opportunities to ensure our employees have the expertise required to excel in all areas of our operations. As we transition from coal-fired to gas-fired generation, we are committed to managing this significant challenge through effective communication between management and staff. We aim to facilitate a just transition by ensuring that all employees involved in coal operations receive the necessary retraining and are reassigned to suitable roles within the organisation.

Our annual succession planning process, led by the Managing Director in collaboration with business unit heads and the General Manager (Human Resources), evaluates our leadership pipeline to ensure effective succession for key positions. This process also outlines strategies for developing potential successors. We work closely with line managers to identify training needs of their employees from performance appraisals, and following up with technical and functional training. The Human Resources Division oversees a variety of learning initiatives, such as designing competency-based modules with line managers, Leadership Development Programme and Young Talent Development Programme, which align with our Leadership Competency Framework, plus other general competence programmes, such as innovation and design thinking.

The HK Electric Institute is committed to enhancing the technical and professional skills of our workforce by facilitating knowledge transfer from experienced employees and retirees to the younger workforce. We also collaborate closely with local universities to expand learning opportunities and strengthen the talent pool in our industry. Our partnership with The Hong Kong Polytechnic University enables sharing of expertise and experience, including access to specialised equipment and facilities.

## Learning and Development at HK Electric



#### TALENT DEVELOPMENT

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 their business acumen

#### KNOWLEDGE SHARING

#### **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



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# 2024 Learning and Talent Development Initiatives

#### **Support for External Training and Educational Programmes**

We enhance employee skills through sponsorships for local and overseas training. In 2024, 574 employees participated in sponsored training. There were also six employees supported for Bachelor's degrees and eight for Master's degrees. Sponsorship amounts increased by 30% yearly for the 2024/2025 academic year, demonstrating our sustained commitment to talent development.

#### Leadership Development Programmes for Emerging Leaders

Since 2010, our Leadership Development Programme has engaged 91 midlevel employees, with over 70% of them remaining with HK Electric. In 2024, 14 leaders joined the programme, receiving mentorship and participating in workshops on essential soft skills. We have also introduced the Accelerated Development Programme for young employees to support their growth and two outstanding individuals were taking part in the programme during the year.

#### Fostering a Self-directed Learning Culture

To foster a self-directed learning culture, we launched a programme for producing structured learning materials, training seven teams in video production to create in-house resources focused on advanced technological knowledge. Our library was enhanced with books on the latest power supply topics, supported by the State Grid Corporation of China, providing employees with access to recent research and expertise. We also organised a book presentation ceremony and introductory seminar to encourage staff engagement with these resources and promote continuous learning throughout the organisation.



#### **Exchange Opportunities with Other Organisations**

We organised exchange programmes to broaden employee perspectives. A 14-day young talent exchange programme was held at the State Grid Corporation of China, Beijing, involving 20 young talent from HK Electric. Additionally, three management staff members participated in a National Study, observing innovative technologies in the Mainland.

#### Nurturing Future Generations for a Sustainable Talent Pipeline

HK Electric is committed to supporting future generations through scholarships, bursaries and awards to various educational institutions. In 2024, our mid-level managers and young talent delivered a talk on career planning and industry trends to students from The University of Hong Kong. We also organised a HK Electric Scholarship Presentation Ceremony, highlighting our dedication to encouraging academic excellence and investing in the development of young people.

# Belt and Road Advanced Programme in Power and Energy 2024

HK Electric is playing a key role in advancing the skills of energy professionals through its ongoing collaboration in the "Belt and Road Advanced Programme in Power and Energy". Partnering with The Hong Kong Polytechnic University, Xi'an Jiaotong University and the State Grid Corporation of China, the Programme has trained over 800 professionals from more than 40 Belt and Road countries and regions since its inception in 2018. With the partnership extended to 2028, the focus will shift towards fostering innovation and conducting on-site research to develop customised solutions for local power infrastructure in Belt and Road countries and regions, driving economic growth and sustainability.

HK Electric contributes decades of expertise in building resilient power systems, especially in densely populated urban areas. Our experiences on submarine and underground cable systems,



designed to withstand extreme weather events, provide valuable insights for Programme participants. This global knowledge exchange is vital not only for strengthening international power systems but also for improving Hong Kong's grid resilience through shared expertise.

By uniting industry leaders, researchers and energy professionals, the Programme is creating a global network of experts ready to address the evolving challenges of the power and energy sectors. HK Electric's active involvement underscores its commitment to innovation, sustainability, and preparing the next generation of energy professionals to meet the demands of a rapidly changing world.



# Engaging with Employees

At HK Electric, employee engagement is a critical focus and essential for addressing workforce needs and driving organisational improvement. We demonstrate our commitment through a variety of initiatives designed to enhance communication, foster constructive relationships, and create a supportive workplace culture.

Our internal communication framework includes multiple platforms to encourage dialogue and feedback. The corporate intranet portal serves as a central information hub, complemented by the My HKE mobile app, which provides access to resources at employees' fingertips. The "IDEAS Click" online suggestion platform empowers employees to share innovative ideas, while special taskforces address specific issues and briefing sessions held as required keep employees informed. Additionally, an employee hotline is available to address concerns promptly, reinforcing our supportive workplace culture.

Established over 40 years ago, the JC Committee has been pivotal in fostering open and effective communication within our organisation. The Committee consists of six formal panels, with generally 70 representatives elected from various employee groups. These panels serve as a vital link between management and employees, facilitating the exchange of information and collection of feedback to drive continuous improvement.



▲ JC Committee Annual Lunch Gathering

While local legislation does not require collective bargaining agreements, we ensure continuous dialogue with the Employees Union through both scheduled and ad hoc interactions, including written and oral communications. This open line of communication facilitates free exchange of ideas and strengthens our collaborative relationship with union members.

Our Performance Management System is integral to our engagement strategy, involving all employees in a structured appraisal process with three phases: planning, mid-year review, and year-end evaluation. Each division/ department establishes annual performance goals and conducts reviews accordingly. Throughout the year, supervisors provided ongoing feedback and coaching to employees on their performance and development. This process fosters alignment between supervisors and team members, creating a shared understanding of goals and a two-way communication channel to enhance work effectiveness and collaboration.



▲ "Dialogue with Francis" employee communication forum

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# Connecting with Employees in 2024

"Dialogue with Francis" employee communication forum	591 colleagues attended the forum physically or online. HK Electric Managing Director, Francis Cheng, delivered a business update to attendees and engaged in an interactive Q&A session, addressing questions raised by colleagues.			
"Hear Your Voice"	> 128 young professionals engaged in discussions with senior executives, including our Managing Director, to share their perspectives on personal growth, career aspirations and insights into company matters.			
JC panel meetings	> 11 meetings were held for the management and employee representatives to discuss topics on business operations and employee welfare. A total of 33 improvement initiatives, such as medical benefits, education sponsorship, meal allowance, work environment and office facilities, were implemented in the year.			
Focus group discussions	> 78 employees contributed valuable opinions and suggestions, leading to the implementation of 20 improvement initiatives, which focused on areas such as medical benefits, meal allowances, wellness activities and work environment.			
Orientation Programme	Over 160 new hires attended the programme to familiarise themselves with HK Electric's vision, mission, core values and key policies.			
Meetings with Employees Union	Two meetings were held with the Employees Union to exchange ideas and address issues of concern of HK Electric employees.			
Employee well-being Survey	A company-wide survey was held to gather employees' insights, with over 80% of eligible employees voluntarily participating. The survey captured valuable views and suggestions on key areas such as happiness, work-related stress, work-life balance, and workplace engagement. To further explore the findings, a series of follow-up focus group meetings will be held in Q2 2025, involving employees selected through a sampling process to gain deeper insights into the feedback and perspectives highlighted in the survey results.			
Workshops on performance planning and performance evaluation	126 and 113 employees participated in workshops for performance planning and performance evaluation respectively, which aimed to help new employees and supervisors understand the performance planning and appraisal process.			

 
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# Promoting Employee Well-being

HK Electric believes that recognising individual uniqueness and prioritising care for employees are vital for promoting well-being, enhancing motivation and fostering creativity. When employees feel comfortable in a psychologically safe environment and receive support through targeted organisational actions, they are more likely to feel engaged in inclusive behaviours. Caring is one of our Core Values, and we integrate this principle into our management practices by offering comprehensive wellness programmes that focus on both physical and psychological health while promoting a healthy work-life balance. 2024 also marked our 10<sup>th</sup> consecutive recognition as a "Happy Company" under the Happiest-at-Work Promotional Scheme, earning us the "Happy Company 10 Years+" label. We promote family relationships and allow flexible work arrangements based on various factors in accordance with our Code of Practice for Working from Home. To better support our employees and their dependants on maternity care, with effect from April 2024, the maternity leave entitlement was increased from 14 weeks to 16 weeks and the paternity leave entitlement increased from 5 days to 10 days.

## **Wellness Initiatives at a Glance**



# Physical and intellectual well-being

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



# Emotional and social well-being

- Volunteering activities;
- Functional 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 ecoheritage tours; and
- Parenting talk and family-friendly activities.





# 2024 Employee Health and Well-being Initiatives



#### Good Neighbours' Club

The Good Neighbours' Club ("GNC") comprises more than 150 colleagues who have received training on counselling skills to provide timely emotional support to colleagues in need. We also conduct refresher training for GNC members to continuously enhance their awareness and skills.



#### Interest Classes and Physical Exercises Activities

In 2024, our diverse range of interest classes and physical exercise activities engaged 1,945 participants. More than 100 colleagues took online gym training courses and a quadriceps strengthening video was distributed company-wide to encourage regular exercise. In the year, our Runners' Club organised 18 training sessions with 204 participants, and 13 members participated in the Inter-Hong 8K tournament. As at the end of the year, the Club had 116 members, demonstrating our dedication to promoting employee well-being.



#### Health Talks and Family-friendly Activities

During the year, over 170 colleagues attended health talks on workplace pain and shingles, while 78 colleagues and their family members participated in familyfriendly activities like "DIY Easter egg crafting" and indoor shrimp fishing in 2024, fostering bonding and creating cherished memories.



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# **Respecting Human Rights**

## Management Approach

HK Electric is dedicated to maintaining high standards of human rights. As a crucial provider of public utilities, safeguarding the rights of all associated parties, especially our employees, is a key priority. We are also committed to diversity, equity and inclusion ("DEI"), ensuring fair treatment and responsiveness to employee needs. We proactively address and prevent any potential infringements, a commitment central to the social dimension of our ESG endeavours. Despite the complexities involved in quantifying these efforts, our dedication to social accountability is evident in our actions to protect employee rights via our comprehensive Human Rights Policy. This policy informs both our Code of Conduct and our Code of Practice for Suppliers, supported by regular training sessions to ensure effective implementation. Additionally, a formal grievance procedure is in place to address and resolve employee concerns, fostering a supportive and inclusive work environment.

In addition to complying with Hong Kong's human rights legislation, we adhere to global standards, including those established 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.

A robust framework for human rights is crucial to our sustainable growth strategy. We ensure our business practices comply with the Employment Ordinance, which explicitly forbids child and forced labour. In 2024, we confirmed that none of our operations faced risks related to child or forced labour, reinforcing our commitment to a positive and inclusive workplace culture.

# Our Commitment to Human Rights

As a dedicated equal opportunity employer, HK Electric is committed to ensuring fair and equitable treatment of all employees, irrespective of gender, disability, family status, race, age, sexual orientation or other personal characteristics. Our recruitment and promotion policies adhere strictly to objective criteria in compliance with the Employment Ordinance and anti-discrimination ordinances. We actively promote a diverse workforce and have intensified efforts to increase female representation at all levels to address industry-wide gender imbalances.

We prioritise the creation of a supportive and transparent work environment, free from discrimination and harassment. To safeguard our employees' rights to fair treatment, we have implemented comprehensive whistleblowing and grievance procedures, ensuring issues are addressed sensitively and confidentially, with independent investigations conducted as required.



Our employees enjoy the freedom to join or establish employee unions without the risk of retaliation, intimidation or harassment. The Chief Manager (Employee Relations) serves as our primary contact for union representatives, ensuring open and effective communication. We encourage all employees, regardless of union membership, to participate in focus group discussions to share their views and suggestions with the company.

Our Code of Practice for Suppliers outlines the ethical standards required from our business partners, including the support of freedom of association and the prohibition of discrimination, child labour and forced labour. We are committed to advancing human rights in our community by facilitating accessibility and affordability of electricity for everyone with targeted assistance to those in need.

For more details on our supplier engagement practices and community support initiatives, such as our Smart Power Services, please refer to the <u>Responsible Supply Chain</u> <u>Management</u> section of this chapter and the <u>Serving Hong</u> <u>Kong</u> chapter of this report.

# **Fostering Anti-discrimination and Equal Opportunities in 2024**

# >50

contractors and secondees

8 sessions of Contractor Compliance Training were arranged for over 50 contractors and secondees providing services at LPS. The training included a series of compliance videos covering the prevention of bribery and anti-discrimination, as well as personal and company data privacy and security.



employees

More than 270 employees participated in two webinars focused on enhancing participants' awareness and understanding of the anti-discrimination ordinances and HK Electric's related policies and guidelines.



Over 100 employees attended workshops themed "Application of the Anti-discrimination Ordinances for Managers". These sessions helped participants understand how to manage team performance and behaviour while mitigating risks, offering insights into applying the principles of the ordinances and ensuring compliance in their interactions with employees.

# **Diversity and Inclusive Workplace**

At HK Electric, our dedication to cultivating a diverse and inclusive workplace is integral to boosting performance and better serving our communities. We strive to advance gender diversity by increasing female representation in our workforce and supporting employees in balancing their professional and personal responsibilities. As a proponent of equal opportunity, we guarantee fair and impartial treatment for everyone, irrespective of gender, physical state, race, ethnicity, age, sexual orientation or other personal attributes. Recruitment, development, compensation and advancement are guided by objective

standards, including commitment, gualifications, skills, performance, and capability, to build a team enriched with diverse skills, experiences and perspectives.

We are dedicated to fostering employee engagement and maintaining a work environment built on trust and mutual respect. Our Grievance Procedures provide a clear framework for addressing employee grievances arising from the workplace or employment, ensuring they are resolved promptly and fairly. In 2024, no grievances were raised by our employees.



Responsible Supply Chain Management

# **Health & Safety**

## Management Approach

At HK Electric, our dedication to maintaining a safe operating environment is encapsulated in our Health & Safety Policy. This policy outlines our commitment to the welfare of employees, customers, contractors and the public. The policy's implementation is rigorously managed by our Health & Safety Board – under the leadership of the Managing Director – which convenes quarterly. Support for this board is provided by various divisional/departmental health & safety committees, which track performance, assess training requirements and develop safety protocols and emergency procedures. Additionally, specialised subcommittees focus on health and safety engagement with both employees and contractors, enhancing communication, receiving feedback and promoting safety awareness throughout the organisation.

All our operations from power generation to transmission and distribution, as well as infrastructure development, are governed by safety management and asset management systems compliant with the International Standards ISO 45001 and ISO 55001 respectively. Additionally, our LPS operates under a specialised Natural Gas Safety Management System that manages all phases from design to maintenance of our gas facilities and gas-fired units.

Our Corporate Health & Safety Manual aligns with the Labour Department's safety management guidelines and is frequently revised to keep up with industry best practices and regulatory demands.



Our goal is to eliminate all accidents involving our employees, customers and contractors and our operation do not harm the public, and to ensure a safe and reliable electricity supply for our customers. We support this through implementing rigorous health and safety initiatives, maintaining exceptional standards across all facilities and utilising cutting-edge technologies for safety preparedness, as well as fostering an environment of continuous safety education and incentive-driven performance among our workforce.

As we address the challenges of climate change and move towards greener energy sources, such as transitioning from coal to gas, we recognise the importance of integrating stringent health and safety measures into our processes. This commitment is crucial as we adopt new technologies and work practices, ensuring a just and safe transition for all stakeholders involved.



# Safety First

We promote employee health, workplace safety and a strong health and safety culture through comprehensive management strategies, including thorough risk assessments and targeted measures to mitigate safety risks. We provide extensive training for employees and contractors, recognise outstanding safety performance and conduct campaigns to enhance health and safety awareness. A dedicated "Health & Safety Information" section on our corporate intranet portal, coupled with regular updates via emails and notice-board displays, keep everyone well-informed.

Throughout the year, we organised numerous health and safety events, such as forums, health talks, webinars and safety quizzes, accessible both in person and through our intranet portal. In 2024, notable event themes included "Strive for Safety through Innovation", "Prevention of Eye Injuries at Work" and "First Aid in the Workplace". We also extend our commitment to health and safety to our customers and the public, distributing educational materials on electrical safety and proper electricity use through platforms like service pamphlets, our corporate website, the HK Electric App, and our Customer and Call Centres. Each year, we implement a safety management system audit plan, involving external safety auditors for most of the audit sessions. We also have in place a Work Safe Behaviour Programme designed to identify and eliminate risky work behaviours. This initiative emphasises safe workplace practices and promotes correct procedures and behaviours in the use of personal protective equipment among employees.

Comprehensive health and safety procedures have been enforced for all our employees and contractors. Audits and inspections across various locations are conducted regularly to ensure compliance with these protocols, reflecting our dedication to a safe working environment. For situations involving working in confined spaces, we require video recording of workers entering and exiting confined spaces. To prevent cable damage during excavation, we have reinforced precautionary measures with our trenching contractors.

## EMPLOYEE SAFETY PERFORMANCE

The number of Lost Time Injuries among our employees has remained consistently low in recent years, with three accidents reported in 2024. Each incident has been thoroughly investigated, with preventive measures established to prevent future occurrences. Due to these accidents, 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. We will strive to further reduce workplace risks by implementing improvement measures and graded controls that prioritise employee safety and aim for zero accidents. For more detailed Health & Safety data, please refer to the <u>Performance Data Summary</u> section and the <u>GRI Content Index</u>.



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# **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 utilisation 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.



Chemical spill drill

#### 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.

#### Encouragement

- Incentive and award schemes to recognise employees for zero-accidents;
- Incentive schemes for reporting near-miss incidents, safety hazards 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.

# **2024 Highlights on Raising Health and Safety Awareness**

For positive occupational health and safety outcomes, engaging proactively with employees and contractors is vital. To raise health and safety awareness, we provide comprehensive education on safety culture, cultivate an environment that encourages open knowledge sharing and offer incentives for both employees and contractors to support our goal of achieving zero accidents.

#### Promoting Occupational Safety & Health ("OSH") and Innovation

At the OSH Innovation & Technology Expo organised by OSHC in March, we showcased our innovative solutions, products and technologies designed to enhance occupational safety and health standards of our construction projects.



#### Health and Safety Week – "Safety First, Commitment and Compliance"

We held this event in September to enhance safety awareness, compliance and culture among our employees and contractors at LPS. Guests from the Fire Services Department and representatives of our contractors and employees delivered talks on fire awareness and health and safety issues, while an exhibition showcased the latest safety products and personal protective equipment to improve workplace safety.

#### Health and Safety Forum – "Strive for Safety through Innovation"

In December, we organised a Health and Safety Forum with approximately 550 participants, featuring guests from Labour Department, OSHC, and contractor companies who shared their expertise and experience on "Strive for Safety through Innovation".

#### Annual Safety, Health and Environmental Day

In December, more than 600 colleagues and our contractors united in this campaign themed "Safety is an Attitude!" at LPS, underscoring our dedication to safety at HK Electric.

#### Empowering Knowledge Exchange by Technical and Safety Visits

21 participants visited China State's fabrication workshop in Zhuhai to explore Modular Integrated Construction in January, while 16 participants visited Castle Peak Power Station in May. These visits facilitated knowledge exchange and improvements in technical and safety practices.

#### Construction Industry Council (CIC) – Design for Safety

The CIC's Task Force on Design for Safety aims to identify and reduce hazards in construction. HK Electric showcased "New Electricity Substation Building in Sandy Bay" in the CIC's workshop held in July, emphasising the importance of safety from the project inception.

#### Life First 2024: Walk the Talk – Synergy in Safety

A safety promotion event held by Projects Division in July, attended by over 300 participants, boosts site safety culture and awareness while deepening participants' understanding safety measures at construction sites.

#### Responsible Supply Chain Management

# **Contingency Preparedness**

Health and safety emergencies can happen anywhere and at any time. Unplanned interruptions to power supply may also result in serious consequences for the community. It is therefore essential for us to be well prepared for emergencies and take prompt actions to minimise the harm or damage, ensuring the situation is restored as quickly as possible.

We maintain robust emergency response and crisis management procedures that are regularly tested to ensure they remain effective and relevant. Our Crisis Management Plan outlines our strategy for handling major incidents, with each business unit responsible for developing and maintaining its own emergency response plan to ensure operational continuity. Regular drills involving employees, contractors and customers enhance our emergency response capabilities. Our contingency plans are designed for smooth recovery from crises, including natural disasters and other unforeseen events. The plans address health and safety risks associated with emergencies such as fires, oil spills, chemical spills, typhoons and flooding. We also have a comprehensive three-tiered plan to manage public health crises like influenza outbreaks.

To manage situations associated with interruptions of electricity supply, we provide 24-hour emergency customer support through telephone and SMS (Short Message Services). Specific measures are in place for hospitals and customers who depend on life-support equipment, enabling us to cater to their unique needs during emergencies and notify them in advance of any planned supply interruptions.



Oil spill drill





# **Responsible Supply Chain Management**

## Management Approach

We continue to align our procurement practices with the International Standard ISO 20400 Sustainable Procurement - Guidance, ensuring an ethical and sustainable approach across our operations. We actively promote our sustainability values and vision to a wide range of stakeholders within our supply chain, including suppliers, contractors, consultants and vendors who are crucial for the construction, operation and maintenance of our power facilities and the support of our everyday activities.

Our supply chain is largely composed of local entities from Greater China, including Hong Kong. With the exception of coal and natural gas, we source all key materials regularly required at LPS from these local suppliers. We procure 49% of other general goods and services locally in terms of spending.

The Code of Practice for Suppliers ("CoP") is a dynamic document that we consistently revise and refine to uphold the highest standards of business ethics. This includes strict adherence to legal standards, protection of intellectual property, fostering fair competition, anti-corruption and preventing bribery and conflicts of interest. We expect our suppliers to be transparent about their sustainability efforts and to comply with the principles set forth in the CoP, which they should also communicate to their employees and downstream suppliers.

Additionally, the CoP outlines our expectations in critical areas such as health and safety, environmental protection and climate action, and physical and information security. It also emphasises the importance of protecting and advancing human and labour rights, which includes the elimination of child and forced labour, supporting freedom of association, and enforcing anti-discrimination and anti-harassment policies. To ensure these standards are met, we include them in our Conditions of Tendering/ Bidding and integrate them into the criteria for admission to our Recognised Tenderers Register ("RTR").

# 2024 Number of Suppliers by Geographical Region



# **Responsible Procurement**

**Overview** 

HK Electric's sustainable procurement strategy aims to enhance the sustainability of its procurement decisions by focusing on legal compliance, carbon footprint, circularity and other impacts on the environment, as well as health and safety and respect for human rights. We achieve this through comprehensive tracking of environmental and social impacts and by selecting suppliers who excel in these areas.

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As a founding member of the Hong Kong Sustainable Procurement Charter, organised by the Green Council, we collaborate with suppliers committed to resource conservation and environmental protection, aligning with our procurement policy and guidelines. Suppliers who violate our CoP may be removed from our registered supplier list and barred from future contracting opportunities.

Under our procurement practices, we ensure that various materials used in our facilities meet high environmental standards. This includes certified carpets and flooring in Electric Tower, as well as sustainable products in our renovations, such as recycled plastic laminate for toilet partitions and bamboo decking at the roof garden of Marsh Road Station Building. In 2024, environmentally friendly products represented 41% of the general office commodity items listed in our Electronic Ordering System. The annual expenditure on these items totals approximately \$500,000.

At HK Electric, we process each tender or quotation according to our established commercial procedures. To be included on our RTR, major suppliers of materials and services must be screened for environmental and health and safety performance. We conduct regular reviews of the RTR and require suppliers to provide updates on their sustainability efforts. Throughout the year, we assessed all new suppliers against environmental and social criteria. In total, 67 suppliers underwent evaluation for their performance in these areas, and no significant actual or potential negative impacts were identified.



# Influencing our Suppliers

HK Electric continuously enhances its supplier relationship management process through year-round operational and business reviews. Our approach emphasises close collaboration with suppliers to achieve shared sustainable development goals, particularly in enhancing environmental and health and safety performance. For instance, we actively support our contractors in reducing carbon emissions and improving local air quality by encouraging the use of electric power on construction sites.

Our Contractor Handbook provides comprehensive guidelines on environmental protection, health and safety, quality assurance, housekeeping and security. We hold regular meetings with contractors to assess their performance and gather feedback. In collaboration with contractors' Safety Officers, we conduct joint site inspections and encourage all contractor employees to report near-miss incidents and safety hazards, and share suggestions for preventing potential hazards in our workplaces. Additionally, we have implemented a merit and demerit point system for trenching contractors to promote workplace safety. For further details on how we engage with our contractors to improve safety performance, please refer to the section on Health and Safety.



#### **SUSTAINABLE PROCUREMENT SURVEY**

In December 2024, we invited 66 suppliers to participate in a Sustainable Procurement Survey, aiming to obtain a better understanding on their implementation progress of relevant sustainable procurement practices.

# **Performance Data Summary**

Environmental	2024	2023	2022
Fuel Consumed [1]			
Gas (TJ)	52,907	43,613	40,150
Coal & oil (TJ) <sup>[2]</sup>	38,189	51,687	55,210
Licence Compliance			
Environmental regulatory non-compliances (no. of case)	0	0	0
Air Emissions <sup>[1]</sup>			
SO <sub>2</sub> (kT)	1.04	0.81	1.36
NO <sub>x</sub> (kT)	2.91	3.68	4.42
RSP (kT)	0.09	0.08	0.10
CO <sub>2</sub> (million T)	6.00	6.59	6.73
Mercury (T) [3]	0.014	0.027	See note 3
GHG Emissions			
Direct (Scope 1) GHG emissions (million T of CO <sub>2</sub> e) [4]	6.05	6.64	6.77
Indirect (Scope 2) GHG emissions (million T of CO <sub>2</sub> e) <sup>[4]</sup>	0	0	0
Indirect (Scope 3) GHG emissions (million T of CO <sub>2</sub> e) <sup>[4]</sup>	1.21	1.08	1.07
Indirect (Scope 3) GHG emissions by category (kT of CO <sub>2</sub> e):			
Cat. 1: Purchased goods and services	14.7	15.2	15.1
Cat. 2: Capital goods	134.0	170.2	235.1
Cat. 3: Fuel-related and energy-related activities	1,059.7	894.1	823.3
Cat. 4: Upstream transportation and distribution <sup>[5]</sup>	See note 5	See note 5	See note 5
Cat. 5: Waste generated in operations	0.5	0.3	0.4
Cat. 6: Business travel	0.4	0.3	0.0
Cat. 7: Employee commuting	0.4	0.5	0.4
CO <sub>2</sub> e per electricity unit sold (kg/kWh) <sup>[6]</sup>	0.60	0.66	0.68
Material Non-Hazardous Waste [7] [8]			
Ash collected for industrial uses (kT) <sup>[1]</sup>	82	105	123
Gypsum collected for industrial uses (kT) <sup>[1]</sup>	29	41	45
Construction waste from major construction projects for reuse (kT)	22	17	0
Construction waste from major construction projects for recycle (kT)	92	19	23
Construction waste from major construction projects for disposal (kT)	1	3	2
Material Hazardous Waste <sup>[9]</sup>			
Waste oil collected for recycle (litre)	71,680	71,270	178,880
Waste oil collected for disposal (litre)	78,320	306,378	159,138
Other material hazardous waste recorded in volume for recycle (litre)	0	0	0
	C 220	28,800	8,944
Other material hazardous waste recorded in volume for disposal (litre)	6,320	20,000	0,511
Other material hazardous waste recorded in volume for disposal (litre) Other material hazardous waste recorded in weight for recycle (kg)	6,320 19,748	26,212	7,339

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Environmental	2024	2023	2022
Water Consumption/Discharge			
Seawater withdrawal & discharge (million m <sup>3</sup> )	1,618	1,749	1,816
Town water consumption (million m <sup>3</sup> ) <sup>[10]</sup>	1.22	1.51	1.57
Wastewater discharge (million m <sup>3</sup> ) <sup>[1]</sup>	0.15	0.18	0.19
Recycling of plant effluent and rainwater (million $m^3$ ) <sup>[1]</sup>	0.12	0.11	0.09
% of water recycled and reused [1]	10.2%	7.3%	5.7%
Noise Abatement Notice			
Number of notices received	0	0	0
Certificate Accreditation			
Number of ISO 14001 certificates	3	3	3
Number of ISO 50001 certificates	1	1	1

Notes:

- [1] 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] All GHG emissions figures are independently verified according to the International Standard ISO 14064. For calculation methodologies, please refer to the <u>Greenhouse Gas Accounting Methodology</u>.

[5] Integrated upstream 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 emissions 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] Increase in waste amount in 2024 was due to foundation works for Unit L13 and civil works for Unit L12, at LMX of LPS.

[9] 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.

[10] Town water is provided by the Water Supplies Department of the HKSAR Government. Please refer to Water Supplies Department's <u>website</u> for information about the source of water.

[11] Figures may not add up to the total due to rounding.

Operations	2024	2023	2022
Customer Service			
Number of customers (thousands) [1]	593	589	586
Residential (thousands)	475	474	472
Commercial (thousands)	113	110	109
Industrial (thousands)	5	5	5
Average rating of customer satisfaction level (5-point scale)	4.8	4.7	4.7
Number of pledged service standards and percentage achieved	18 (100%)	18 (100%)	18 (100%)
Product or service related complaints received (no. of case)	1	5	6
Substantiated complaints received concerning breaches of customer privacy (no. of complaint)	0	0	0
Installed Capacity			
Total Generation Capacity (MW)	3,083	3,403	3,402
Gas (MW) [2]	1,475	1,095	1,095
Coal & oil (MW) [2] [3]	1,605	2,305	2,305
Renewable energy (MW) <sup>[4]</sup>	3.2	3.2	2
Total Renewable Energy Installations under Feed-in Tariff Scheme (MW)	13.4	10.8	7.4
Plant Availability [1] Total (%)	84.8	89.4	86.6
Gas (%)	88.1	88.2	88.7
Coal & oil (%) [2]	82.0	90.1	85.6
Thermal Efficiency <sup>[1]</sup>			
Total (%)	41.5	39.3	38.9
Gas (%)	48.6	48.4	48.6
Coal & oil (%) [2]	31.7	31.7	31.8
Electricity Sent Out [5]			
Total (GWh)	10,518	10,425	10,305
Gas (GWh) (%) <sup>[1]</sup>	7,142 (68%)	5,870 (56%)	5,432 (53%)
Coal & oil (GWh) (%) [1][2]	3,362 (32%)	4,544 (44%)	4,865 (47%)
Renewable energy (GWh) (%)	13.7 (0.1%)	10.7 (0.1%)	8.5 (0.1%)
<b>Cable Length</b> Total (km)	7,047	6,969	6,853
Above ground (km)	37	38	37
Underground (km)	7,009	6,931	6,817
Transmission and Distribution Losses <sup>[6]</sup>	,,005		0,017
Total (%)	3.5	3.7	3.5
Transmission losses (%)	1.2	1.2	1.2
Operations	2024	2023	2022
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Electricity Sold			
Electricity sold (millions of kWh)	10,150	10,040	9,941
By types of customers [7]			
Residential (millions of kWh)	2,451	2,384	See note 7
Commercial (millions of kWh)	7,415	7,369	See note 7
Industrial (millions of kWh)	284	288	See note 7
Energy intensity (per electricity unit sold) [8]	1.49	1.64	1.66
Electricity Supply Reliability <sup>[9]</sup>			
Supply reliability rating (%)	>99.9999	>99.999	>99.9999
System Average Interruption Frequency Index	0.029	0.103	0.045
System Average Interruption Duration Index (hours)	0.006	0.057	0.005
Customer Average Interruption Duration Index (hours) [7]	0.203	0.554	See note 7
Unplanned customer minutes lost (minutes)	0.4	3.4	0.3
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] 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.

[2] For power generation only.

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

[4] 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.

[5] 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.

[6] Non-technical losses are assumed to be insignificant.

[7] Starting from 2023, the figure is reported with reference to the SASB Standards for Electric Utilities and Power Generators.

- [8] 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.
- [9] 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.
- [10] Figures may not add up to the total due to rounding.

Social	2024	2023	2022
Workforce Profile [1]			
Total workforce (no. of employee)	1,841	1,852	1,867
By employment types			
Full-time (no. of employee)	1,824	1,834	1,850
Part-time & temporary (no. of employee)	17	18	17
By gender [2]			
Male (no. of employee) (%)	1,441 (79.0%)	1,451 (79.1%)	1,480 (80.0%
Female (no. of employee) (%)	383 (21.0%)	383 (20.9%)	370 (20.0%
By age group <sup>[2]</sup>			
Age 30 or below (no. of employee) (%)	333 (18.3%)	336 (18.3%)	370 (20.0%
Age 31–40 (no. of employee) (%)	520 (28.5%)	493 (26.9%)	466 (25.2%
Age 41–50 (no. of employee) (%)	347 (19.0%)	361 (19.7%)	384 (20.8%
Age 51 or above (no. of employee) (%)	624 (34.2%)	644 (35.1%)	630 (34.1%
By employment contract [2]			
Permanent (no. of employee) (%)	1,649 (90.4%)	1,657 (90.3%)	1,690 (91.4%
Contract (no. of employee) (%)	175 (9.6%)	177 (9.7%)	160 (8.6%
By employee category [2]			
Senior staff (no. of employee) (%)	153 (8.4%)	154 (8.4%)	145 (7.8%
General staff (no. of employee) (%)	1,589 (87.1%)	1,581 (86.2%)	1,584 (85.6%
Workman (no. of employee) (%)	82 (4.5%)	99 (5.4%)	121 (6.5%
New Hires <sup>[2]</sup>			
Total number and rate of new hires (%)	152 (8.3%)	181 (9.9%)	242 (13.1%
By gender			
Male (no. of employee) (%)	110 (7.6%)	122 (8.4%)	169 (11.4%
Female (no. of employee) (%)	42 (11.0%)	59 (15.4%)	73 (19.7%
By age group			
Age 30 or below (no. of employee) (%)	72 (21.6%)	71 (21.1%)	125 (33.8%
Age 31–40 (no. of employee) (%)	40 (7.7%)	41 (8.3%)	62 (13.3%
Age 41–50 (no. of employee) (%)	17 (4.9%)	33 (9.1%)	33 (8.6%
Age 51 or above (no. of employee) (%)	23 (3.7%)	36 (5.6%)	22 (3.5%
Total number and rate of voluntary turnover (no. of employee) (%)	127 (7.0%)	179 (9.8%)	204 (11.2%
By gender			
Male (no. of employee) (%)	93 (6.5%)	124 (8.5%)	147 (9.9%
Female (no. of employee) (%)	34 (8.9%)	55 (14.4%)	57 (15.4%
By age group			
Age 30 or below (no. of employee) (%)	21 (6.3%)	49 (14.6%)	54 (14.6%
Age 31–40 (no. of employee) (%)	26 (5.0%)	35 (7.1%)	48 (10.3%
Age 41–50 (no. of employee) (%)	10 (2.9%)	24 (6.6%)	21 (5.5%
Age 51 or above (no. of employee) (%)	70 (11.2%)	71 (11.0%)	81 (12.9%

Social	2024	2023	2022
Average tenure <sup>[2]</sup>			
By gender			
Male (year)	8.8	8.2	8.5
Female (year)	8.4	5.5	5.9
By age group			
Age 30 or below (year)	2.3	2.0	2.7
Age 31–40 (year)	5.1	4.1	5.1
Age 41–50 (year)	2.9	13.7	14.3
Age 51 or above (year)	25.3	27.9	20.8
Parental Leave [2]			
Employees entitled to parental leave (no. of employee)	1,824	1,834	1,850
By gender			
Male (no. of employee)	1,441	1,451	1,480
Female (no. of employee)	383	383	370
Return to work rates			
Male (%)	100.0%	100.0%	100.0%
Female (%)	100.0%	100.0%	100.0%
Retention rates			
Male (%)	95.8%	95.8%	97.0%
Female (%)	100.0%	100.0%	90.9%
Gender Pay Ratio (Female to Male) [2]			
Overall (%)	83.2%	83.0%	85.0%
By employee category			
Senior staff (%)	97.8%	95.0%	92.0%
General staff (%)	84.6%	85.0%	86.0%
Workman (%)	66.9%	58.0%	60.0%

Social	2024	2023	2022
Development and Training <sup>[2]</sup>			
Total training hours (hours)	69,187	55,524	46,311
Average training hours per employee (hours)	38	31	27
By gender			
Male (hours)	39.6	31.8	25.5
Female (hours)	32.7	28.3	23.3
By employee category			
Senior staff (hours)	34.4	28.2	24.7
General staff (hours)	39.2	32.1	26.5
Workman (hours)	26.2	15.2	5.7
Overall percentage of employees trained (%)	99.3%	97.5%	91.3%
By gender			
Male (%)	99.7%	97.9%	92.1%
Female (%)	97.7%	95.8%	88.1%
By employee category			
Senior staff (%)	100.0%	98.7%	100.0%
General staff (%)	99.4%	98.4%	91.5%
Workman (%)	96.3%	80.8%	78.5%
Occupational Health & Safety [4]			
Number of fatalities (no. of cases)	0	0	0
Number of Lost Time Injuries	3	2	0
Lost Time Injury Frequency Rate (LTIFR) (per 200,000 employee-hours)	0.17	0.11	0
Number of days lost/charged (no. of employee-days) [5]	40	3	0
Lost Time Injury Severity Rate (LTISR) (per 200,000 employee-hours) <sup>[5]</sup>	2.28	0.17	0
Longest period without a Lost Time Injury (no. of days)	296	158	365
Number of reported traffic accidents (no. of cases)	10	6	3
Traffic Accident Frequency Rate (TAFR) (no. of cases per million km travelled)	6.0	3.6	1.8
Number of cases of occupational diseases (no. of cases)	0	0	0
Number of hours worked (hours)	3,512,436	3,538,258	3,585,816
Number of ISO 45001 certificates	3	3	3

Notes:

[1] Our operations are based in Hong Kong.

[2] The reported figures apply to full-time employees only.

[3] Voluntary turnover applies to full-time employees only. Voluntary employee turnover refers to the proportion of employees who leave an organisation voluntarily or due to retirement.

[4] For our employees only. For our contractors' safety statistics, please refer to the <u>GRI Content Index</u>.

[5] 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.

[6] For other social data, please refer to the <u>GRI Content Index</u>.

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

[8] Figures may not add up to the total due to rounding.

# **Greenhouse Gas Accounting Methodology**

## Greenhouse Gas (GHG) Reporting Standards and Guidelines

HK Electric's GHG emissions have been measured in accordance with the following international standards and guidelines:

- The International Standard ISO 14064-1:2018;
- Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition);
- Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard;
- Greenhouse Gas Protocol: Technical Guidance for Calculating Scope 3 Emissions (version 1.0);
- Revised 1996 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories;
- Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong; and
- Methodologies agreed with the Environmental Protection Department.

### **Compilation bases**

HK Electric consolidates its GHG emissions inventory based on the operational control approach. It accounts for all quantified GHG emissions from facilities under the full control of HK Electric, including electricity generation at Lamma Power Station (LPS) on Lamma Island, transmission and distribution of electricity to Hong Kong Island, Ap Lei Chau (ALC) and Lamma Island as well as its power system development projects.

### Changes from the prior year

There are no material changes in the approach, inputs, and assumptions used in measuring GHG emissions. The appropriateness of the GHG quantification approach including the emission factors, Global Warming Potentials, calculation formula, assumption used is reviewed annually.

### **Emission Inventory**

HK Electric's GHG emissions inventory covers six GHGs specified in the Kyoto Protocol

- Carbon dioxide (CO<sub>2</sub>)
- Methane (CH<sub>4</sub>)
- Nitrous oxide (N<sub>2</sub>O)
- Hydrofluorocarbons (HFCs)
- Sulphur hexafluoride (SF<sub>c</sub>)
- Perfluorocarbons (PFCs).

Nitrogen trifluoride ( $NF_3$ ) – the seventh mandatory gas added under the Kyoto Protocol is irrelevant to our operation.

## Methodologies

Scope 1 emissions				
<ul> <li>Stationary combustion sources         <ul> <li>Combustion sources arise from coal, fuel oil and natural gas usage during generation of electricity at the generation facilities of LPS</li> <li>Other stationary combustion sources such as diesel fire pumps and emerging generators</li> </ul> </li> <li>Mobile combustion sources such as vehicles fleet, ferries and on-site vehicles at Fugitive emissions sources such as refrigeration and air conditioning systems, fire systems, fuel gas systems and electrical power transmission and distribution equilation.</li> </ul>				
Relevance to HK Electric	All direct GHG emissions sources within HK Electric's organisational boundaries are identified and quantified.			
Methodology	<ul> <li>GHG emissions from combustion sources during the generation of electricity at the generation facilities at LPS are calculated based on a document by the Environmental Protection Department (EPD) of the Hong Kong Special Administrative Region Government as per the statutory requirement.</li> <li>GHG emissions from combustion sources other than generation facilities and fugitive emissions are calculated in accordance with the IPCC Guidelines or guidelines published by the EPD.</li> </ul>			

Scope 2 emissions (Location-based)					
Description	GHG emissions sources associated with the production of imported electricity and energy				
Relevance to	HK Electric is a vertically integrated utility and does not purchase electricity, towngas, heat,				
HK Electric	steam, cooling or compressed air from others for its own consumption. All electricity consumed				
	or lost within our operations has been generated by ourselves. Consequently, Scope 2 GHG				
	emissions (the indirect GHG emissions from imported energy) are already covered in Scope 1 and				
	to avoid double-counting these are reported as "zero".				

Scope 3 emissions				
Scope 3 Category	Applicability (Yes/No)	Relevance to HK Electric	Methodology and Emission Factors	
Purchased goods and services	Yes	Extraction of raw materials, production, and transportation of products and services used by HK Electric	<ul> <li>Except for Fresh water processing:</li> <li>Emissions are quantified using the spend-based method.</li> <li>Emission factors covering extraction of raw materials, production and transportation are applied to the financial spend on the purchased goods and services.</li> <li>Source of emission factor for purchased goods and services other than fresh water processing: Table 13 Indirect emissions from the supply chain, Department for Environment, Food and Rural Affairs (Defra), UK Government, 2014.</li> <li>Fresh water processing: <ul> <li>Emissions are quantified using supplier-specific method.</li> <li>Emission factor is applied to fresh water processing: Annual Report of Water Services Department.</li> </ul> </li> </ul>	

Scope 3 emissions				
Sco	pe 3 Category	Applicability (Yes/No)	Relevance to HK Electric	Methodology and Emission Factors
2	Capital goods	Yes	Extraction of raw materials, production and transportation of capital goods	<ul> <li>Upstream emissions are quantified using the spend-based method.</li> <li>Emission factors covering extraction of raw materials, production and transportation are applied to the financial spend on the capital goods.</li> <li>Source of emission factor: Table 13 Indirect emissions from the supply chain, Department for Environment, Food and Rural Affairs (Defra), UK Government, 2014.</li> </ul>
	n	Extraction, production and	<ul> <li>Coal and oil:</li> <li>Upstream emissions (Well-to-Tank, WTT) are assessed using the supplier-specific methods.</li> <li>Emission factors covering extraction, production and transportation are applied to the consumed quantities of coal and oil used for electricity generation.</li> <li>Source of emission factor: coal suppliers, oil supplier and shipping service supplier.</li> <li>LNG:</li> <li>Upstream (WTT) emissions are assessed using the average-data method.</li> </ul>	
3 (not included	related activities (not included in scope 1 or scope 2)	Yes	transportation of fuels used for electricity generation and daily operation	<ul> <li>Emission factor covering extraction, production and transportation is applied to the consumed quantities of LNG used for electricity generation.</li> <li>Source of emission factor: UK Government GHG Conversion Factors for Company Reporting 2024.</li> </ul>
				<ul> <li>Diesel, petrol and LPG:</li> <li>Upstream (WTT) emissions are assessed using the average-data method.</li> <li>Emission factors covering extraction, production and transportation are applied to the consumed quantities of fuels used for daily operation including other stationary and mobile facilities.</li> <li>Source of emission factor: UK Government GHG Conversion Factors for Company Reporting 2024.</li> </ul>
4	Upstream transportation and distribution	Yes	Transportation of purchased goods and services, capital goods and fuels used for electricity generation and daily operation	Upstream emissions due to transportation of purchased goods and services, capital goods and fuels used for electricity generation and daily operation are included in Cat. 1-3 respectively instead of Cat. 4 because integrated upstream emission factors covering extraction, production and transportation are used for emissions quantification.

Scope 3 emissions					
Sco	be 3 Category	Applicability (Yes/No)	Relevance to HK Electric	Methodology and Emission Factors	
5	Waste generated in operations	Yes	Handling of ash and gypsum	<ul> <li>Ash and gypsum are the major by-products of HK Electric and they are regularly collected for use by other industries. Emissions are quantified using the contractor-specific method.</li> <li>Emission factors are applied to the quantities of ash and gypsum collected for use by other industries.</li> <li>Source of emission factor: ash and gypsum reclamation facility.</li> </ul>	
6	Business travel	Yes	Employees' business travel by air	<ul> <li>Emissions are quantified using key traveling information provided by airline companies and relevant emission factors.</li> <li>Source of emission factor: WWF's Hong Kong Carbon Calculator.</li> </ul>	
7	Employee commuting	Yes	Commuting bus services, ferries services by contractor	<ul> <li>Emissions are quantified using fuel oil consumption provided by contractors and relevant emissions factors.</li> <li>Source of emission factor: EPD Guidelines and IPCC Guidelines.</li> </ul>	
8	Upstream leased assets	No	Explanation: HK Electric does not have operation of leased assets not included in our Scopes 1 & 2 inventories.		
9	Downstream transportation and distribution	No	Explanation: Electricity is the main product of HK Electric. Transportation, transmission and distribution of electricity does not involve vehicles or facilities not owned or controlled by HK Electric.		
10	Processing of sold products	No	Explanation: Electricity is HK Electric's main product, it is the end product without further processing requirements.		
11	Use of sold products	No	Explanation: Electricity is HK Electric's main product, there are no GHG emissions from the end use of electricity.		
12	End-of-life treatment of sold products	No	Explanation: Electricity is HK Electric's main product, there is no end-of-life treatment required.		
13	Downstream leased assets	No	Explanation: HK Electric does not have operation of assets that are leased to other entities not included in our Scopes 1 & 2 inventories.		
14	Franchises	No	Explanation: HK Electric does not have any franchising business.		
15	Investments	No	Explanation: HK Electric does not have operation of investments not included in our Scopes 1 & 2 inventories.		

# **Awards and Recognition**



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## **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 2024 ("the Report"). The scope of HKQAA's verification covers the data and information of HKEI's sustainability performance for the period from 1 January 2024 to 31 December 2024. 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 ("GRI") Sustainability Reporting Standards and GRI Electric Utilities Sector Disclosures, as well as Hong Kong Exchanges and Clearing Limited's ("HKEX") Environmental, Social and Governance ("ESG") Reporting Guide (the version effective from 31 December 2023, which remains applicable to annual reports for financial years commencing before 1 January 2025). The Report has also referenced the Sustainability Accounting Standards Board (SASB) Standards for Electric Utilities and Power Generators and HKEX's ESG Reporting Code (effective from 1 January 2025), including the new climate-related disclosure requirements under Part D of the Code, as a preparatory measure for the next reporting cycle.

#### 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.

#### **Roles and Responsibilities**

HKEI is responsible for the organisation's information system, and the development and maintenance of records and reporting procedures in accordance with the system, including the calculation and determination of sustainability information and performance. HKQAA verification team is responsible for providing an independent verification opinion on the disclosures provided by HKEI for the reporting period. The verification was based on the verification scope, objectives and criteria as agreed between HKEI and HKQAA.

#### Independence

HKEI is responsible for the preparation of the Report. HKQAA was not involved in any calculation, compilation or development work of the Report. Our verification activities are independent from HKEI.



#### Limitation and Exclusion

The following limitations and exclusions were applied to this verification due to the service scope, nature of verification criteria and characteristics of the verification methodology.

- I. Our verification scope is limited to examining the raw data or information for the selected disclosures, e.g., Claims and Performance Data stated in the Report. The identified sustainability information may be subject to inherent uncertainty because of incomplete scientific and technical knowledge.
- II. Evaluating the quality of execution and implementation effectiveness of the ESG practices, as well as the appropriateness of the assumptions made and the estimation techniques applied, are outside the scope of our verification.
- III. The verification of raw data or information is based on the use of a sampling approach and reliance on the client's presentation. As a result, errors or irregularities may occur and remain undetected.
- IV. Any data or information outside the established verification period has been excluded.

#### Conclusion

- Based on the evidence obtained and the results of the verification process, it is the opinion of the verification team that, with a reasonable level of assurance, the Report has been prepared in accordance with the GRI Sustainability Reporting Standards and GRI Electric Utilities Sector Disclosures. Also, the Report has been prepared, in all material respects, in accordance with HKEX's ESG Reporting Guide (the version effective from 31 December 2023, which remains applicable to annual reports for financial years commencing before 1 January 2025).
- The verification team considered that the Report has been prepared with reference to the contents or parts of the contents of the SASB Standards for Electric Utilities and Power Generators and HKEX's ESG Reporting Code (effective from 1 January 2025) including the new climate-related disclosure requirements under Part D of the Code.
- The Report illustrates HKEI's sustainability performance, covering all material aspects in a balanced, comparable, clear and timely manner. The data and information disclosed in the Report are reliable and complete.

#### Signed on behalf of Hong Kong Quality Assurance Agency

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Connie Sham Head of Audit March 2025 Ref: 14945217



#### 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 welcome your feedback on our sustainability performance and this report. Please share your views by completing the <u>feedback form</u> on our corporate website or by contacting us at:

Sustainability Department Corporate Development Division The Hongkong Electric Co., Ltd.

44 Kennedy Road, Hong Kong Fax: (852) 2810 0506 Email: <u>sr@hkei.hk</u>

www.hkei.hk

