



**CK Infrastructure Holdings Limited**

**長江基建集團有限公司**

(Incorporated in Bermuda with limited liability)

(Stock Code: 1038)

Creating Values  
through Sustainability



**2020**

Sustainability Report



**CK Infrastructure Holdings Limited**

**長江基建集團有限公司**

CK Infrastructure Holdings Limited (“CKI” or the “Company”, together with its subsidiaries, the “Group”) is a global infrastructure company that aims to make the world a better place through a variety of infrastructure investments and developments in different parts of the world. The Group has diversified investments in Energy Infrastructure, Transportation Infrastructure, Water Infrastructure, Waste Management, Waste-to-energy, Household Infrastructure and Infrastructure Related Businesses. Its investments and operations span Hong Kong, Mainland China, the United Kingdom, Continental Europe, Australia, New Zealand, Canada and the United States.



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Remark: Some photos in this Report may feature persons without face masks. Such photos were taken before the COVID-19 pandemic or in non-specified public place or in countries where face masks were not mandated.

# INTRODUCTION



*Wellington Electricity's overhead line refurbishment at Golans Valley, Wainuiomata in the North Island, New Zealand.*

# OUR GLOBAL PRESENCE

- UK Power Networks
- Northumbrian Water
- Northern Gas Networks
- Wales & West Gas Networks
- Seabank Power
- UK Rails
- Southern Water

## UNITED KINGDOM

- Power Assets
- Shen-Shan Highway (Eastern Section), Shantou Bay Bridge and Panyu Beidou Bridge
- Alliance Construction Materials
- Green Island Cement
- Anderson Asphalt

## HONG KONG AND MAINLAND CHINA

- Canadian Power
- Park'N Fly
- Canadian Midstream Assets
- Reliance Home Comfort

## CANADA

## NEW ZEALAND

- Wellington Electricity
- EnviroNZ

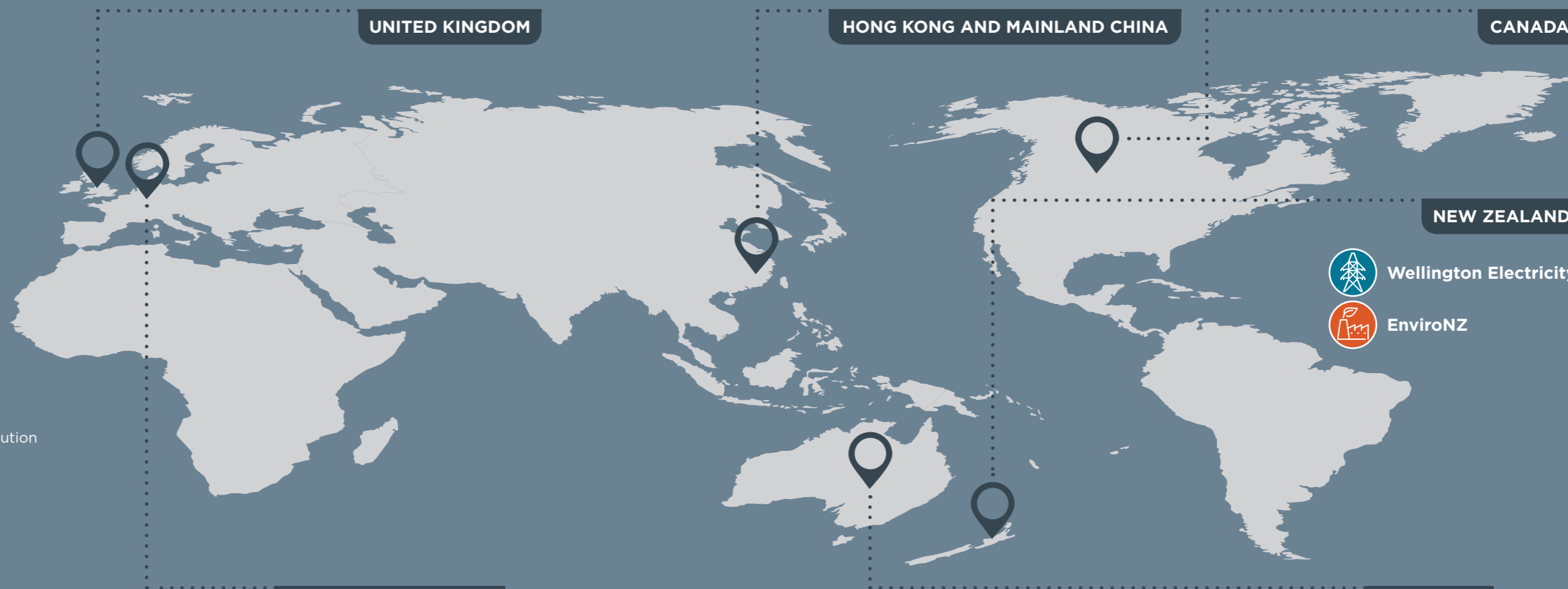
## CONTINENTAL EUROPE

- ista
- Dutch Enviro Energy

## AUSTRALIA

- SA Power Networks
- Victoria Power Networks
- United Energy
- Australian Gas Networks
- Multinet Gas
- Dampier Bunbury Pipeline
- Australian Energy Operations
- Energy Developments

- Power Generation
- Energy-from-waste
- Electricity Transmission & Distribution
- Oil Pipelines & Storage Facilities
- Gas Transmission & Distribution
- Renewables
- Water Utilities & Services
- Waste Management
- Construction Materials
- Transportation
- Household Infrastructure



# 1.1 ABOUT CKI

## INVESTMENT IN **POWER ASSETS**

Power Assets is a global investor in energy and utility-related businesses with assets in power generation, transmission and distribution, renewable energy, energy-from-waste, gas transmission and distribution as well as oil storage and transmission in nine markets across the globe – namely the United Kingdom, Australia, Hong Kong, Mainland China, the Netherlands, New Zealand, Thailand, Canada and the United States.

## INFRASTRUCTURE INVESTMENTS IN THE **UNITED KINGDOM**

In the United Kingdom, CKI has investments in electricity and gas distribution, water and wastewater services, electricity generation as well as railway rolling stock.

- UK Power Networks (“UKPN”) – the electricity distribution network operator which serves London, the South East and East of England.
- Northumbrian Water – a water supply, sewerage and wastewater company which serves the North East England as well as provides water supply in South East England.
- Northern Gas Networks (“NGN”) – a gas distribution network within the North of England.
- Wales & West Gas Networks (“WWU”) – gas distribution networks that serves Wales and South West England.
- Seabank Power – an electricity generation plant located near Bristol in the South West of England.
- UK Rails – one of the three major rolling stock companies that was established at the time of privatisation of the UK rail industry.
- Southern Water – supplies water and wastewater services to the South East of England.

## INFRASTRUCTURE INVESTMENTS IN **AUSTRALIA**

In Australia, CKI has investments in electricity and gas transmission and distribution, as well as renewable and remote energy solutions.

- SA Power Networks – an electricity distributor in South Australia.
- Victoria Power Networks (“VPN”) – comprises regulated networks Powercor and CitiPower which distribute electricity to over 1.2 million residential households and commercial customers across Victoria and unregulated business, Beon Energy Solutions which specialises in building, and operating large-scale renewable energy and infrastructure projects.
- United Energy – an electricity distribution business in Victoria.
- Australian Gas Networks (“AGN”) and Multinet Gas (members of Australian Gas Infrastructure Group (“AGIG”)) – natural gas distribution network.
- Dampier Bunbury Pipeline (“DBP”) (a member of AGIG) – Western Australia’s principal gas transmission pipeline.
- Energy Developments (“EDL”) – a renewable and remote energy solution provider.
- Australian Energy Operations – a renewable energy power transmission business in Victoria.

## INFRASTRUCTURE INVESTMENTS IN **NEW ZEALAND**

In New Zealand, CKI has investments in electricity distribution and waste management.

- Wellington Electricity – the electricity distributor which serves the capital city and its surrounding area.
- EnviroNZ – provides waste and recycling collection, resource recovery, reuse and disposal services.

## INFRASTRUCTURE INVESTMENTS IN CONTINENTAL EUROPE

In Continental Europe, CKI has investments in energy-from-waste and in household infrastructure businesses.

- Dutch Enviro Energy – which owns AVR, the Netherlands' leading energy-from-waste company.
- ista – a leading sub-metering provider whose key markets are Germany, France, the Netherlands and Denmark.

## INFRASTRUCTURE INVESTMENTS IN CANADA

- Canadian Power – holds a portfolio comprising stakes in five electricity generating plants in Ontario, Alberta and Saskatchewan.
- Park'N Fly – the largest off-airport car park provider in Canada.
- Canadian Midstream Assets – which holds oil and gas midstream assets in Alberta and Saskatchewan.
- Reliance Home Comfort – a residential services company under the household infrastructure portfolio of the Group.

## INFRASTRUCTURE INVESTMENTS IN HONG KONG AND MAINLAND CHINA

CKI's Hong Kong and Mainland China portfolio consists of materials business and Mainland China infrastructure investments.

- Shen-Shan Highway (Eastern Section), Shantou Bay Bridge and Panyu Beidou Bridge – toll roads and bridges in Guangdong province.
- Alliance Construction Materials – the leading concrete and aggregates total solutions provider in Hong Kong.
- Green Island Cement – a leading cement manufacturer and distributor of cement and cementitious products in Hong Kong and has cement operations in south China.
- Anderson Asphalt – provides bituminous products for the construction industry in Hong Kong.

## OUR BUSINESS PORTFOLIO



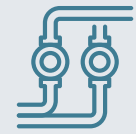
**Generation Capacity**  
over **9,800** MW



**Power Network Length**  
over **398,000** km



**Employees**  
**32,726**<sup>1</sup>



**Gas/Oil Pipeline Length**  
over **112,000** km

### Currently our renewable energy operations include:

- **EDL's** global operations abated and avoided 18.9 million tonnes of CO<sub>2</sub> emissions. In 2020, EDL delivered the Agnew Hybrid Renewable Projects in Western Australia comprising 18 MW wind, 4 MW solar and 13 MW/4 MWh battery, and commissioned the Indy High BTU Renewable Natural Gas Plant in Indiana, USA.
- **AVR's energy from waste and resource recovery** – sorted 26,000 tonnes of plastics for reuse.
- **AVR's CO<sub>2</sub> capture plant in Duiven, the Netherlands** – captured 31 kilotonnes ("kT") of CO<sub>2</sub> and transported it to greenhouses to support the cultivation of vegetables, fruits and flowers; AVR is planning to increase the carbon capture and utilisation capacity to 100 kT.
- **HK Electric's Feed-in Tariff ("FiT") Scheme** – about 130 renewable energy installations at schools, residential premises and small to large enterprises were connected to the grid through the FiT Scheme as at the end of 2020, amounting to a total capacity of around 2.3 MW.

<sup>1</sup> Includes both full-time and part-time employees.

## 1.2 MESSAGE FROM THE CHAIRMAN

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**Victor T K Li** - *Chairman*

We are proud to introduce our first annual standalone Sustainability Report, setting out our sustainability performance and achievement in 2020.

2020 was a year full of challenges and uncertainty, but our commitment to a sustainable business for the long term has remained paramount. We see a real opportunity amid crisis to embrace challenges with optimism while maintaining our commitments to the environment, social and governance issues.

The Group aspires to be a responsible corporate citizen and believes that transparency and accountability are important foundations for building the trust with its stakeholders. Our mission is to enhance the quality of life by making the world a better place through a variety of infrastructure investments and developments, and we endeavour to reduce any

adverse environmental impact arising from day-to-day operations. Our four pillars approach guides us in setting the overall direction of our sustainability strategy and integrating sustainability across all operations.

In 2020, we have enhanced our governance structure by setting up the board-level Sustainability Committee to assist the Board to oversee the Group's efforts in implementation of sustainability with the support of the Sustainability Working Group that has been set up since 2016. We have also established and adopted sustainability-related policies including Environmental Policy, Supplier Code of Conduct, and Health and Safety Policy. These policies will serve as the ultimate guiding principles and provide the frameworks for putting sustainability values into actions across our businesses. We will proactively address sustainability issues and drive strategic initiatives across the Group.





The Group is committed to protecting the environment by managing its footprint across its network of operating markets. We strive to connect renewable energy to the grid, supply captured CO<sub>2</sub> for utilisation, promote hydrogen in the 21st century and smart cities concept, implement demand side management and use cleaner fuel and facilities to reduce emissions. We will continue to work with governments and others in the industry to identify possible decarbonisation pathways to achieve net zero emissions.

As a responsible employer, business partner and community member, we achieve sustainability by communicating with our employees and providing them with opportunities to grow and be rewarded for their efforts; by respecting and partnering with our suppliers; by connecting with our customers; by integrating diverse interest groups into our corporate

activities; and by maintaining good relationships with our communities.

The impact of the COVID-19 pandemic is enormous and far-reaching. As soon as the outbreak of COVID-19 began, a series of measures was implemented to protect our employees and to ensure the continuous provision of essential services to the community. A range of initiatives has been set up for our customers and additional funds have been allocated to support charities and community projects.

We thank our employees, our customers and other stakeholders for their continued support. We invite you to work together towards a sustainable future.

### **Victor T K Li**

Chairman

17th March, 2021

# 1.3 2020 HIGHLIGHTS



## SUSTAINABILITY COMMITTEE

- In December 2020, a dedicated Sustainability Committee was formed for CKI. It is chaired by Mr. IP Tak Chuen, Edmond, the Deputy Chairman and Executive Director, and comprised of Mr. Paul Joseph TIGHE, Independent Non-Executive Director, and the Company Secretary as members.



## GOVERNANCE

- CKI is keenly involved with all aspects of environmental, social and governance (“ESG”) and has a set of clearly defined ESG policies. In addition to adhering to the policies, our management teams often take the initiative to launch projects which are in support of ESG.
- The Group’s sustainability-related policies, which include the Environmental Policy, Supplier Code of Conduct, and Health and Safety Policy guide the Group in setting the overall direction of its sustainability strategy and help it to integrate sustainability across its worldwide businesses.



## SOCIAL

- UKPN was ranked in the top 10 companies in terms of complaint handling in the 2020 UK Customer Satisfaction Index (“UKCSI”), which benchmarks customer satisfaction.
- WWU continued to provide additional assistance to the most vulnerable customers within its geographical coverage through its Social Obligations Steering Group.
- In early 2020, EDL donated a total of AUD262,790 to support relief efforts for the devastating Australian bushfires, which continued for almost nine months and wiped out more than 11 million hectares. Of this total amount, AUD12,790 came from matching employee donations across the business.



## ENVIRONMENT

- H21, a collaborative programme of which NGN is a founding member, continued in 2020. The focus of H21 includes delivering two pieces of work, H21 NIC and H21 North of England, which provide detailed engineering solution for converting 3.7 million UK homes and businesses from natural gas to 100% hydrogen in order to reduce carbon emissions.
- AGN’s Hydrogen Park SA (“HyP SA”) Project, an Australian-first project that will provide renewable hydrogen for blending with natural gas to domestic customers, was awarded the 2020 Australian Engineering Excellence Award for South Australia and the 2020 Australian Pipelines and Gas Association Environment Award.
- HK Electric’s new highly efficient combined-cycle gas-fired generating unit equipped with a selective catalytic reduction (“SCR”) system, known as L10, was commissioned in February 2020. Compared with 2019, carbon emissions from electricity generation were reduced by about 16% with L10 in operation. HK Electric is also building two new gas-fired units (L11 & L12) which are scheduled to be commissioned in 2022 and 2023 respectively.

# 1.4 COVID-19 RESPONSE

This section provides a snapshot of how we have responded to the COVID-19 pandemic since the health crisis began; from deploying the business continuity plan, to protecting the safety of our people and those they work alongside while providing the widest range of support possible to our stakeholders.



## EMPLOYEES

We have implemented a series of operational reinforcement measures to ensure employee health and safety and continued operations. Some of these actions taken by our operating companies and/or the Company include:

- Intensified hygiene and cleaning procedures in line with sanitary authorities' guidelines.
- Distribution of individual protection facemasks and hand sanitisers.
- Establishment of work-from-home arrangement for the employees whose jobs can be done remotely to restrict the spread of the virus.
- Physical segregation of teams, transferred to video-conferencing to minimise personal contact.
- Financially support our people and casuals who were required to self-isolate and had no leave entitlement.
- Mental health care & wellbeing programme.



## CUSTOMERS

We are very conscious that many of our customers are currently experiencing additional financial challenges and have therefore implemented a range of initiatives for those struggling to pay.

### AGIG

- Participating in the ENA's (representing electricity and gas networks in South Australia, Victoria and New South Wales) COVID-19 programme, which provides relief to small business and residential customers who are experiencing financial hardship, in support of the Australian government's COVID-19 stimulus packages.

### SA POWER NETWORKS

- Launched a COVID-19 Tariff Relief Package, rebating (writing-off) some network charges to retailers and deferring retailer payment terms for other network charges in respect of residential customers and small business customers adversely impacted by the pandemic.



## CUSTOMERS

### VPN

- Offered financial support to eligible Victorian households and small businesses by COVID-19 via deferrals and rebates of the electricity network charges. The package was modified at stages through 2020 and completed in January 2021.

### UKPN

- Launched an app for the engineers so they can directly help customers in vulnerable circumstances in the community. The app hosts useful information on medical support, coping with social isolation, wellbeing tips and more.
- Call centre is open 24/7 throughout the pandemic and enhances services for the most vulnerable households via a Priority Services Register.



## COMMUNITIES

In addition to helping our customers directly, we have allocated additional funds to support charities and community projects at the forefront of the region's COVID-19 response.

### AVR

- Kept production up to par by keeping COVID-19 mostly outside the premises by taking necessary precautions like segregating personnel, social distancing, hygiene measures and taking temperature measurements for all people entering the sites.

### ISTA

- Donated face masks to support a COVID-19 prevention project initiated by the city of Essen for care and retirement homes.
- Donated face masks to food banks in Stuttgart and Würzburg.

### UKPN

- Led a collaboration between eight utility firms to donate GBP500,000 to 21 community foundations, distributing fast funding to local charities, including local food banks, volunteer centres, food delivery services and outreach programmes for those at risk of isolation.
- Re-purposed its Power Partners GBP300,000 scheme to help people struggling to pay their energy bills while out of work and at home.

### EDL

- Offered five local councils AUD10,000 each in COVID-19 relief funds.

# SUSTAINABILITY AT CKI



*CKI's management team and key personnel.*

# 2.1 APPROACH TO SUSTAINABILITY

Our predominant principle for sustainability is operating our businesses in a responsible and sustainable way whilst remaining transparent and accountable to our stakeholders. The Group is committed not just to its shareholders, but also to a wide range of stakeholders including employees, shareholders, customers, suppliers, the local community, professional institutions, non-governmental organisations and authorities. To more effectively manage sustainability, the Group reviewed its sustainability framework in the year and revised and developed relevant policies to align efforts across the Group.

## 2.1.1 SUSTAINABILITY PILLARS AND POLICIES

The Group’s overall sustainability approach and priorities are built on four pillars, namely **The Business, The People, The Community** and **The Environment**. Each pillar is supported by Group-wide policies, leadership at the Group level and collective efforts across its businesses. These four pillars guide the Group in setting the overall direction of its sustainability strategy to integrate sustainability across all operations of the Group. The Group has policies, procedures and guidelines in place to support management in addressing material sustainability issues across the Group, as described throughout this Report.

### THE GROUP’S SUSTAINABILITY PILLARS



#### BUSINESS



- Enhance long-term return for its shareholders.
- Focus on sustainable development of its businesses and the communities it operates in.
- Comply with all relevant and applicable laws and regulations within its operational frameworks.
- Conduct business with uncompromising integrity.
- Safeguard against unfair business practices.
- Achieve a high standard of corporate governance and emphasise a quality board, sound internal control, transparency and accountability to all stakeholders.

#### PEOPLE



- Uphold a high standard of business ethics and personal conduct of its employees.
- Adhere to non-discriminatory employment practices and procedures.
- Provide a positive work environment that values the wide-ranging perspectives inherent in its diverse workforce.
- Foster individual growth and achievement of business goals and offering a wide range of training and development programmes and interest courses and activities.
- Maintain proper systems to ensure internal equity and external competitiveness of staff remuneration and recognition.
- Provide a safe workplace for all its employees.

## COMMUNITY



- Consult with local communities and undertake initiatives catered to the needs and benefits of the communities within which it operates, with a focus on employee volunteerism, education, medical, health and elderly care, arts and culture, sports and disaster relief.
- Implement internal guidelines and controls on donations and contributions to safeguard stakeholders' and shareholders' interests.
- Encourage employees to play a positive and active role in the community.

## ENVIRONMENT



- Comply with or exceed the relevant laws and regulations to control any greenhouse gas emissions, discharges into water and land, and waste generation.
- Set targets and review and assess the results regularly to ensure the efficiency of the measures to control emissions.
- Monitor and manage the use of resources, including energy, water and other raw materials.
- Minimise the impact of its business activities on the environment and natural resources.
- Develop and implement environmentally-friendly products and processes with potential commercial applications.
- Encourage and provide support for conservation and environmental protection programmes.

These principles are adopted Group-wide and implemented by each business unit based on local social, economic and environmental needs. The execution and compliance are monitored continuously through regular management reviews and reporting.

For more information on relevant policies and procedures in place, please refer to the Sustainability Policies and Corporate Governance Policies on the Group's corporate website.



Sustainability Policies Corporate Governance Policies

## 2.1.2 STAKEHOLDER ENGAGEMENT

The Group endeavours to communicate openly and transparently with its key stakeholders to gather their views on the issues that concern them the most. Given the diversity of the businesses, the Group deals with different stakeholder groups including employees, shareholders, customers, suppliers, the local community, professional institutions, non-governmental organisations and authorities. The Group regularly collects their views through various channels, such as meetings, surveys, seminars and workshops.

The Group uses stakeholders' input to understand the shifting market needs, which in turn helps to inform the Group's decision-making in relation to its sustainability practices, initiatives and disclosures.

## 2.1.3 MATERIALITY ASSESSMENT

This year the management, with the assistance of an independent advisor, conducted a materiality review to define the sustainability issues that are perceived to be most significant to the Group and its stakeholders. The list of material issues was reviewed and approved by the Sustainability Committee.



# 2.1 APPROACH TO SUSTAINABILITY

## 2.1.3 MATERIALITY ASSESSMENT (CONT'D)

### MATERIALITY ASSESSMENT PROCESS

<b>1. Identification</b>	<ul style="list-style-type: none"> <li>Identified sustainability issues that are considered relevant and important to our business and its stakeholders based on a review of our sustainability-related practices and the previous year’s process.</li> </ul>
<b>2. Prioritisation</b>	<ul style="list-style-type: none"> <li>Mapped the issues identified as material for the utilities sector by local and international reporting frameworks such as the Sustainability Accounting Standards Board (“SASB”).</li> <li>Assessed the importance of issues based on the expectations of regulators, sustainability ratings and industry peers.</li> <li>Prioritised issues that have a significant impact on the Group’s ability to create long-term and sustainable value.</li> </ul>
<b>3. Validation</b>	<ul style="list-style-type: none"> <li>Reviewed and approved the material issues by the Sustainability Committee.</li> </ul>

The material sustainability issues identified can be assigned to three categories:



#### ENVIRONMENT

- Combating Climate Change
- Preserving Natural Environment (including Biodiversity, Water, Effluent and Waste)



#### SOCIAL

- Human Capital Development
- Occupational Health and Safety (including Emergency Response)
- Cybersecurity
- Supply Chain Management
- Community Engagement



#### GOVERNANCE

- Corporate Governance
- Business Ethics

The nine issues listed in the table above are identified as material sustainability issues relevant to the whole Group or specific businesses based on their circumstances.

The material sustainability issues include environmental, social and governance concerns

reflecting diverse external stakeholder priorities and the Group’s operational and regulatory risk focus. The materiality results set the focus of this Sustainability Report, as described in the sections below including the disclosures on the material sustainability issues, key initiatives and performance in the reporting year.

## 2.2 SUSTAINABILITY GOVERNANCE

The Group's sustainability governance structure provides a solid foundation for developing and delivering its commitment to sustainability, which is embedded at all levels of the Group, including the Board, the Sustainability Committee and the sustainability working group comprising all personnel responsible for key businesses. It guides businesses to implement their sustainability strategies, manage goals and target setting and reporting processes, strengthen relations with internal and external stakeholders, and also ensure overall accountability.

During the reporting year, the Board approved a suite of fundamental policies, including separate policies on sustainability, environment, supply chain management and human rights. These policies are principally intended to serve as the ultimate guiding principles and provide a formal framework for sustainability practices within the Group, putting its values into action across the businesses and detailing the Group's commitments to business integrity, people, environment and the communities the Group operates in.



### 2.2.1 THE BOARD

The Board has ultimate accountability for the Group's sustainability strategy, management, performance and reporting through the support of the Sustainability Committee.

The Board examines and approves the Group's sustainability objectives, strategies, priorities, initiatives and goals, targets as well as the related significant policies and frameworks that support their achievement.

The Board receives reports periodically from the Sustainability Committee on sustainability risks and opportunities, and their impact on business strategy and new investments.

## 2.2 SUSTAINABILITY GOVERNANCE

### 2.2.2 SUSTAINABILITY COMMITTEE

The Sustainability Committee was formally established as a Board committee, comprising one Executive Director, one Independent Non-executive Director and the Company Secretary. Chaired by Mr. Edmond IP, Deputy Chairman and Executive Director, the committee has an overarching role in supporting the Board on the matters of sustainability and oversees the implementation of the sustainability initiatives of the Group, including reviewing the related policies and practices, and assessing and making recommendations on matters concerning the Group's sustainability governance, strategy, planning and risks. The Committee meets at least twice a year.

Key responsibilities of the Sustainability Committee include:

- proposing and recommending to the Board on the Group's corporate social responsibility and sustainability objectives, strategies, priorities, initiatives, goals and targets;
- overseeing, reviewing and evaluating actions taken by the Group in furtherance of the corporate social responsibility and sustainability priorities, goals and targets, including coordinating with the business units of the Group and ensuring that their operations and practices adhere to the relevant priorities and goals;
- reviewing and reporting to the Board on sustainability and ESG risks and opportunities;
- monitoring, evaluating and reviewing emerging sustainability-related issues, trends and best practices that could impact the business operations and performance of the Group;

- overseeing and reviewing the Group's corporate social responsibility and sustainability and ESG policies, practices, frameworks and management approach, and to recommend improvements;
- considering the impact of the Group's corporate social responsibility and sustainability on its stakeholders, including employees, shareholders, local communities and the environment;
- reviewing and advising the Board on the Group's public communication, disclosure and publications (including the Sustainability Report) as regards to its corporate social responsibility and sustainability performance; and
- performing such further functions related or incidental to the foregoing which the Committee deems appropriate.

For more information, please refer to the Terms of Reference of the Sustainability Committee.

### 2.2.3 SUSTAINABILITY WORKING GROUP

Composed of key members of senior management of the head office and the business divisions of the Group, the working group focuses on proactively addressing sustainability issues and policies and driving strategic initiatives across the Group. The working group reports to and receives feedback from the Sustainability Committee regularly.

## 2.3 ABOUT THIS REPORT

### 2.3.1 REPORTING PERIOD

This is the Group's first annual standalone Sustainability Report, covering the Group's sustainability strategies, management approach, progress, and highlights during the year from 1st January, 2020 to 31st December, 2020, unless otherwise specified.

### 2.3.2 REPORTING BOUNDARY

The information disclosed in this Sustainability Report covers the key businesses that are consolidated in the Group's financial statements, including Power Assets (including HK Electric), Green Island Cement, Alliance Construction Materials, UKPN, Northumbrian Water, NGN, WWU, Seabank Power, UK Rails, SA Power Networks, VPN, AGN, DBP, Multinet Gas, EDL, United Energy, Australian Energy Operations, Wellington Electricity, EnviroNZ, Dutch Enviro Energy, ista, Canadian Power, Park'N Fly, Canadian Midstream Assets and Reliance Home Comfort.

In 2020, Portugal Renewable Energy was sold by the Group and is no longer included in the scope of the sustainability report.

### 2.3.3 REPORTING FRAMEWORK

This Report is prepared with reference to the requirements under the December 2019 updated ESG Reporting Guide ("ESG Guide") contained in Appendix 27 to The Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. The ESG Guide Content Index set out on pages 82 to 88 contains information about the extent to which the Group has applied the ESG Guide and cross-references to the relevant section in this Report.

This Report should be read in conjunction with the Group's Annual Report 2020, which contains a comprehensive review of its financial performance and corporate governance, and also key policies which are published on the Group's website. For more detailed information on its operating companies' efforts and achievements in sustainability, please refer to their separate sustainability reports or websites.

### 2.3.4 REPORTING PRINCIPLES

The content of this Report follows the ESG Guide reporting principles.

- **Materiality** – We focus on matters that impact business growth and are of importance to our stakeholders. For more information, please refer to section 2.1.3 Materiality assessment process.
- **Quantitative** – Information regarding the standards, methodologies, assumptions and/or calculation references, and sources of key conversion factors used for these key performance indicators ("KPIs") is stated wherever appropriate.
- **Consistency** – Consistent methodologies are adopted when calculating the quantitative KPIs, unless otherwise specified. Reasons would be provided for any restating of information published in the Report.

**This Report is by default made available to the stakeholders online unless specific requests are received for a hard copy with a view to reducing paper consumption to promote environmental protection.**

# CORPORATE GOVERNANCE



*UK Rail's Class 802 Intercity Express Train.*

# 3.1 THE BOARD

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The Group strives to attain and maintain high standards of corporate governance best suited to the needs and interests of the Group as it believes that an effective corporate governance framework is fundamental to promoting and safeguarding the interests of shareholders and other stakeholders and enhancing shareholder value. Accordingly, the Group has adopted and applied corporate governance principles and practices that emphasize a quality Board, sound internal controls, stringent disclosure practices, transparency and accountability.

The Board is responsible for directing and guiding the strategic objectives of the Company and overseeing and monitoring managerial performance.

## 3.1.1 ROLE OF THE BOARD

Directors are charged with the task of promoting the long-term success of the Company and making decisions in the best interests of the Company.

The Board led by the Chairman, Mr Victor T K LI, who determines the broad strategic direction of the Group in consultation with the Board members and is responsible for the high-level oversight of management. Management is responsible for the day-to-day operations of the Group under the leadership of the Group Managing Director, with the support of the Executive Directors.

The Board is supported by five board committees, namely, Audit Committee, Remuneration Committee, Nomination Committee, Sustainability Committee and Executive Committee, with specific terms of reference.

## 3.1.2 BOARD COMPOSITION

As at 31st December, 2020 and up to the date of this Report, the Board consists of a total of seventeen Directors, comprising eight Executive Directors, two Non-executive Directors and seven Independent Non-executive Directors. Three Alternate Directors were appointed. More than one-third of the Board is made up of Independent Non-executive Directors and at least one of them has appropriate professional qualifications, or accounting or related financial management expertise as required by the Listing Rules. All Directors (including Non-executive Directors) are subject to retirement by rotation once every three years and are subject to re-election in accordance with the Company's Bye-laws and the Corporate Governance Code.

Biographical information of the Directors are set out in the Board and Key Personnel on pages 50 to 57 of the Annual Report 2020. A list setting out the names of the Directors and their roles and functions is also posted on the websites of the Company ([www.cki.com.hk](http://www.cki.com.hk)) and Hong Kong Exchanges and Clearing Limited ([www.hkexnews.hk](http://www.hkexnews.hk)).

### 3.1.3 CHAIRMAN AND GROUP MANAGING DIRECTOR

The positions of Chairman and Group Managing Director are currently held by separate individuals with a view to maintaining effective segregation of duties respecting management of the Board and the day-to-day management of the Group's business.

The Chairman is responsible for providing leadership to, and overseeing the functioning of, the Board to ensure that it acts in the best interests of the Group.

The Group Managing Director, with the support of the Executive Directors, is responsible for strategic planning of different business functions and day-to-day management and operation of the Group.

Review of the Board composition is made regularly through Nomination Committee to ensure that it has a balance of expertise, skills and experience appropriate for the requirements of the business of the Company.

### 3.1.4 BOARD EFFECTIVENESS

Each newly appointed Director received a package, which have been compiled and reviewed by the Company's legal advisers, including information on the Group, duties and responsibilities as a director and board committee member under the Listing Rules and relevant regulatory requirements, as well as internal governance policies of the Group. Further information package comprising the latest developments in laws, rules and regulations relating to the duties and responsibilities of directors will be forwarded to each Director from time to time for his/her information and ready reference.

To ensure an appropriate balance of knowledge and experience that allows the Board to fulfil its duty, the Company arranges at the cost of the Company and provides Continuous Professional Development ("CPD") training such as seminar sessions and relevant reading materials to Directors to help them keep abreast of current trends and issues facing the Group, including the latest changes in the commercial (including industry-specific and innovative changes), legal and regulatory environment in which the Group conducts its businesses and to refresh their knowledge and skills on the roles, functions and duties of a listed company director.

# 3.1 THE BOARD

## 3.1.5 BOARD INDEPENDENCE

The Board, with the assistance of the Nomination Committee, evaluates the independence of Independent Non-executive Directors, whose independence is assessed with regard to the criteria under the Listing Rules. All the Independent Non-executive Directors of the Company have not been involved in the daily management of the Company nor in any relationship or circumstances which would materially interfere with their exercise of independent judgement.

In identifying suitable candidates for Independent Non-executive Directors, apart from independence which is one of the key factors, the Nomination Committee also takes into account the Board's composition as well as the various diverse aspects as set out in the Board Diversity Policy. The Nomination Committee also reviews on a timely basis any changes in the Directors' professional engagements as well as other directorships or commitments to ensure compliance with the independence criteria and their commitment and devotion to the Board.

## 3.1.6 BOARD PROCESS

The Board meets regularly and at least four times a year with meeting dates scheduled towards the end of the immediately preceding year. Between scheduled meetings, monthly updates and other information with respect to the performance and business activities of the Group had been

provided to Directors on a regular basis. Whenever warranted, additional Board meetings are held by the Company. Further, Directors have full access to information on the Group and independent professional advice at all times whenever deemed necessary and they are at liberty to propose appropriate matters for inclusion in Board agendas.

In 2020, the Company held four Board meetings with a satisfactory overall attendance of approximately 97%. All Directors attended the Annual General Meeting ("AGM") of the Company held on 13th May, 2020 and the Board meeting held on the same day except for one Independent Non-executive Director who was not able to attend due to personal reasons.

Taking into consideration the various social distancing measures as strongly advised by the Hong Kong Special Administrative Region ("HKSAR") Government during the COVID-19 situation, additional precautionary measures were implemented in the interest of the health and safety of the shareholders attending the AGM:

- Attendees were required to wear a surgical face masks throughout the AGM;
- Attendees were required to complete a Health Declaration Form and assigned seats in partitioned meeting rooms at the AGM venue with video link up to ensure appropriate social distancing and facilitate contact tracing; and
- Directors who were not attending in person participated through video conferencing.



<b>Directors</b>	<b>Attendance at Board Meetings</b>	<b>Attendance at 2020 AGM</b>
<b>Executive Directors</b>		
Victor T K LI ( <i>Chairman</i> )	4/4	1/1
KAM Hing Lam ( <i>Group Managing Director</i> )	4/4	1/1
IP Tak Chuen, Edmond ( <i>Deputy Chairman</i> )	4/4	1/1
FOK Kin Ning, Canning ( <i>Deputy Chairman</i> )	4/4	1/1
Frank John SIXT	4/4	1/1
Andrew John HUNTER ( <i>Deputy Managing Director</i> )	4/4	1/1
CHAN Loi Shun ( <i>Chief Financial Officer</i> )	4/4	1/1
CHEN Tsien Hua	4/4	1/1
<b>Independent Non-executive Directors</b>		
CHEONG Ying Chew, Henry	4/4	1/1
KWOK Eva Lee	4/4	1/1
SNG Sow-mei alias POON Sow Mei	4/4	1/1
Colin Stevens RUSSEL	3/4	1/1
LAN Hong Tsung, David	4/4	1/1
Barrie COOK	3/4	0/1
Paul Joseph TIGHE	4/4	1/1
<b>Non-executive Directors</b>		
LEE Pui Ling, Angelina	4/4	1/1
George Colin MAGNUS	4/4	1/1

In addition to regular Board meetings, the Chairman held meetings with Independent Non-executive Directors without the presence of other Directors twice in 2020. The Independent Non-executive Directors are encouraged to provide their independent views to the Board.

### 3.1.7 BOARD COMMITTEES

The Board has established five Board Committees: namely, Audit Committee, Remuneration Committee, Nomination Committee, Sustainability Committee and Executive Committee. Each committee

is delegated with the authority to deal with specific matters with a view to operating effectively, and giving appropriate attention and consideration to these matters.

# 3.1 THE BOARD

## 3.1.7 BOARD COMMITTEES (CONT'D)

The table below provides membership information of these committees on which the Board members serve:

Directors / Board Committee	Audit Committee	Remuneration Committee	Nomination Committee	Sustainability Committee*	Executive Committee*
Victor T K LI		M	M		C
KAM Hing Lam					M
IP Tak Chuen, Edmond				C	M
FOK Kin Ning, Canning					
Frank John SIXT					
Andrew John HUNTER					M
CHAN Loi Shun					M
CHEN Tsien Hua					M
CHEONG Ying Chew, Henry	M	C			
KWOK Eva Lee			C		
SNG Sow-mei alias POON Sow Mei	C				
Colin Stevens RUSSEL		M			
LAN Hong Tsung, David	M				
Barrie COOK			M		
Paul Joseph TIGHE	M			M	
LEE Pui Ling, Angelina					
George Colin MAGNUS					

Notes:

\* also comprises other key personnel

C Chairman of the relevant Board committees

M Member of the relevant Board committees

### 3.1.7.1 AUDIT COMMITTEE

The role of the Audit Committee is to assist the Board in fulfilling its audit duties through the review and supervision of the Company's financial reporting, the effectiveness of risk management and internal control systems. It regularly reviews the scope, extent and effectiveness of the activities of the Group's internal audit function, as well as develops and reviews the Company's policies

and practices on corporate governance including compliance with statutory and Listing Rules' requirements.

The Audit Committee, which comprises only Independent Non-executive Directors, is chaired by an Independent Non-executive Director and is comprised of three other Independent

Non-executive Directors as members, at least one of whom possess the relevant financial and business management experience and skills to understand financial statements and monitor the corporate governance, internal controls and risk management of the Company. For more information, please refer to the Terms of Reference of the Audit Committee and the Corporate Governance Report included in Annual Report 2020 of the Company.

### 3.1.7.2 REMUNERATION COMMITTEE

The principal responsibilities of the Remuneration Committee include making recommendations to the Board on the Company's policy and structure for the remuneration of Directors and the management, and reviewing the remuneration packages of all Executive Directors and the management with reference to the corporate goals and objectives of the Board resolved from time to time.

The Remuneration Committee, which comprises a majority of Independent Non-executive Directors, is chaired by an Independent Non-executive Director and is comprised of one Executive Director and one other Independent Non-executive Director as members. The composition of the Remuneration Committee meets the requirements of chairmanship and independence under the Listing Rules. For more information, please refer to the Terms of Reference of the Remuneration Committee and the Corporate Governance Report included in Annual Report 2020 of the Company.

### 3.1.7.3 NOMINATION COMMITTEE

The Nomination Committee is responsible for reviewing the structure, size, diversity profile and skills matrix of the Board and independence of the INEDs and making recommendations on the re-election of Directors for the Board's consideration.

The Nomination Committee currently comprises a majority of Independent Non-executive Directors, and is chaired by an Independent Non-executive Director and comprised of one Executive Director and one other Independent Non-executive Director as members.

The nomination process is conducted in accordance with the Director Nomination Policy and Board Diversity Policy, which are available on the website of the Company. For more information, please refer to the Terms of Reference of the Nomination Committee and the Corporate Governance Report included in Annual Report 2020 of the Company.

### 3.1.7.4 SUSTAINABILITY COMMITTEE

The Sustainability Committee, which is chaired by an Executive Director, with one Independent Non-executive Director and the Company Secretary as members, was set up by the Board to oversee management and advise the Board on the development and implementation of the sustainability initiatives of the Group, including reviewing the related ESG policies and practices, and assessing and making recommendations on matters concerning the Group's sustainability development and ESG risks. For more information, please refer to Section 2.2 Sustainability Governance and the Terms of Reference of the Sustainability Committee.

### 3.1.7.5 EXECUTIVE COMMITTEE

The Executive Committee is responsible for reviewing the financial information of the Company, discussing and making decisions on matters relating to the management and operations of the Company including but not limited to financial/treasury planning and strategy formulation, and assessing and making recommendations to the Board on acquisitions of or investments in businesses or projects. For more information, please refer to the Terms of Reference of the Executive Committee.

## 3.2 BUSINESS ETHICS AND OTHER GOVERNANCE MATTERS

The Group values and upholds the highest standards of business integrity, honesty and transparency in its overall business activities. We believe that fostering an ethical company culture strengthens employee engagement and helps them make the right decisions.

### 3.2.1 CHALLENGES AND OPPORTUNITIES

Anti-bribery and anti-corruption are important topics for the utilities sector. The Group operates in locations including certain markets that offer good business opportunities but may also entail exposure to potential risks relating to topics such as corruption and fraud.

With the growing global trend of tougher national anti-corruption laws, it is important to take a proactive and holistic approach to avoid any incidents of bribery and corruption. This requires operating companies to develop all-round anti-corruption policies and whistleblower programmes, as well as training to its staff based on the requirements of the Group and local authorities.

### 3.2.2 OUR COMMITMENT

The Group has zero tolerance against any form of fraud or bribery, and is committed to the prevention, deterrence, detection and investigation of all forms of fraud and bribery.

The Board holds overall responsibility for business ethics as an essential part of its corporate governance responsibilities. The Executive Directors assist the Board in overseeing the Group's legal and regulatory compliance efforts.

### 3.2.3 HOW WE WORK

#### 3.2.3.1 GOVERNANCE POLICIES

The Employee Code of Conduct (the "Code") sets out the professional and ethical standards for its Directors and employees to observe in all business dealings, including provisions dealing with conflict of interest, fair dealing and integrity, corruption, political contributions, confidentiality, personal data protection and privacy, as well as reporting of illegal and unethical behaviour. The Code applies to all subsidiaries and controlled affiliates of the Group, where every Director and employee are required to adhere strictly to the Code including all applicable laws, rules and regulations within the jurisdictions the Group operates in. For non-controlled affiliates, employees serving as directors should, to the extent possible, encourage those affiliates to adopt and follow the Code.

Business partners and suppliers of the Group are encouraged to maintain the highest standards of ethical conduct and professionalism in accordance with the Supplier Code of Conduct. They are required to implement appropriate anti-fraud and corruption policies as well as compliance programmes to verify their compliance with the policies. Relevant anti-fraud and corruption clauses are incorporated in the contracts with business partners and suppliers to ensure that they are fully aware of the Group's requirements.

The Anti-Fraud and Anti-Bribery Policy outlines the Group's zero-tolerance stance against bribery and corruption and assists employees in recognising circumstances which may lead to or give the appearance of corruption or unethical business conduct. It includes provisions dealing with kickbacks, political and charitable contributions, facilitation payments, gifts and hospitality, and procurement of goods and services. It is the Group's general policy to avoid any form of donation to political associations or individual politicians.

Other policies relevant to ethics and compliance include our:

- Information Security Policy
- Media, Public Engagement and Donation Policy
- Policy on Appointment of Third Party Representatives
- Policy on Handling of Confidential Information, Information Disclosure, and Securities Dealing
- Procedures for Reporting Possible Improprieties in matters of Financial Reporting, Internal Control or Other Matter

### 3.2.3.2 COMMUNICATION AND TRAINING

The Code forms part of the mandatory induction training which all employees attend upon joining the Group. It is the responsibility of every director and employee (whether full-time or part-time, contract or temporary staff) to familiarise and comply with the Code. During the year, the Group provided a seminar relating to the anti-corruption for the Directors, to help them keep abreast of current trends and issues facing the Group.

Regularly, tailor-made training on specific topics such as anti-fraud and anti-corruption are assigned to employees based on their role and area of responsibility. For example, Park'N Fly organised

annual compliance training on anti-bribery and anti-corruption every year to increase staff awareness. In addition, to enable employees to become familiar with anti-corruption practices, seminars are delivered by the Independent Commission Against Corruption which introduce staff of the Company to anti-corruption guidelines and practices generally and in specific areas of operations.

Employees are also required to self-declare their compliances with the Code and related policies on an annual basis. The outcome of the self declaration drives the necessary improvement and additional mitigating controls, while further reinforcing the importance of fair, ethical and lawful operation among employees.

### 3.2.3.3 ON-GOING ASSESSMENT

Business practices and controls for preventing and combating corruption and other misconducts are continuously assessed at both the Group-level and business unit-level.

At the Group level, an anti-bribery and anti-corruption control assessment is conducted biannually to evaluate the effectiveness of controls for managing bribery risks.

At the business unit level, to combat corruption and bribery risks, ista has the Corporate Internal Audit and Compliance to monitor the observance of all relevant guidelines and commitments. In selected countries, a central monitoring system has been set up to monitor areas that are particularly at risk of corruption.

WWU conducts a risk-based audit to ensure that the focus is on key risk areas. These audits also consider the design and operating effectiveness of processes and controls. Deficiencies with the potential for fraud and other corruption are covered during the process.

## 3.2 BUSINESS ETHICS AND OTHER GOVERNANCE MATTERS

### 3.2.3 HOW WE WORK (CONT'D)

#### 3.2.3.4 DUE DILIGENCE

Moreover, the Group adopts a comprehensive set of procurement and tendering procedures to ensure that related activities are carried out in a fair and transparent manner. The appointment of third party representatives requires approval from the relevant functional/department heads of the business units/operating companies in accordance with the respective guidelines and procedures of the business unit or Group company concerned prior to engagement of the third party representative.

For more information, please refer to the Policy on Appointment of Third Party Representatives.

#### 3.2.3.5 WHISTLEBLOWER PROGRAMMES

All directors, employees and other relevant stakeholders are required to report any potential violation of the Code or other Group policies. Escalation channels are set up to allow reporting of improprieties or business conduct concerns, with the option of anonymous reporting. All reported incidents are treated confidentially and the informants are protected from any retaliation such as unfair dismissal, victimisation or unwarranted disciplinary action. All breaches are recorded, investigated, and reported to the Board, and substantiated violations result in appropriate disciplinary actions, including termination of employment.

In addition to whistleblowing channels, each core business derives its own set of internal escalation procedures to cater to its operational needs.

For example, United Energy provides an independent anonymous 24/7 free service line named Speak-up Anonymous for employees to report on misconduct. To protect employees who report suspected misconduct, United Energy implements a safe reporting mechanism to ensure the confidentiality of anonymous reports. It is available to suppliers, customers and other third parties. EDL has a Whistleblower Policy, aimed at encouraging internal or external stakeholders to report any misconduct or wrongdoing. Stakeholders can call the confidential, independently managed hotline or approach the Chief Executive Officer (“CEO”), Chief Financial Officer (“CFO”), company secretary, director or other senior managers to report the matter.

#### 3.2.3.6 RISK MANAGEMENT

The Group has in place an Enterprise Risk Management framework which is consistent with the COSO (Committee of Sponsoring Organisations of the Treadway Commission) framework. The framework facilitates a systematic approach in identifying, evaluating and managing significant risks within the Group, be they of strategic, financial, operational or compliance nature.

Risk management is integrated into all business and decision-making processes, where striking a sensible balance between risk and opportunity is critical to the longer-term growth and sustainability of the Group’s business. It is also a continuous process carried out at all levels of the Group.

In terms of formal risk review and reporting, the Group adopts a “top-down and bottom-up” approach to manage risk exposures which works as follows:

Managing Risk from Top-down:

The Board and Audit Committee

1. Assess and determine the nature and extent of the risks that the Group is willing to accept in pursuit of its strategic and business objectives; and
2. Ensure appropriate and effective risk management and internal control systems are in place.

Senior Management

1. Oversee the Group's risk profile and evaluate if major risks are appropriately mitigated; and
2. Review and confirm the effectiveness of the risk management processes.

Managing Risk from Bottom-up:

Risk and Control Monitoring Functions

1. Establish relevant policies and procedures for the Group; and
2. Monitor business units in the implementation of effective risk management and internal control systems.

Operational Level

1. Identify, assess, mitigate and report the risks; and
2. Provision of reports and data relating to emerging risks to the Board, through the Audit Committee.

Through this "top-down and bottom-up" risk review process, the risks identified in each business unit will be presented in the Group Risk Register, where they are considered significant on a group level. This Register, of which the content is confirmed by the Group Managing Director and the Chief Financial Officer, forms part of the Risk

Management Report for review and approval by the Audit Committee every half-yearly. The Audit Committee, on behalf of the Board, reviews the Report to ensure that all the significant risks are identified and appropriately managed. Pages 173 to 180 of the Company's Annual Report 2020 provide a description of the Group's risk factors which could affect the Group's financial condition or results of operations to differ materially from expected or historical results.

### 3.2.3.7 INTERNAL CONTROL ENVIRONMENT

The Group's internal control system is embedded in its day-to-day business activities and is carried out at all levels of the Group. The Group has a well-established organisational structure with defined levels of authority and responsibility, as well as reporting procedures.

The Group's governance structure, comprising the Board, Audit Committee, Senior Management, Operational Level, and Risk and Control Monitoring Functions, has been established with defined roles and responsibilities to enhance the Board's ability to exercise proper oversight.

In terms of a formal review of the Group's internal control system, each business unit has to perform a risk assessment on a bi-annual basis where the risks associated with achieving the business objectives are identified and analysed. It also includes a review of the control mechanism for each risk, and an action plan is put in place to address areas for improvement. The Chief Executive Officer and Chief Financial Officer of each business unit need to provide a formal confirmation to acknowledge the review of their control systems and highlight any weaknesses. Such confirmations are reviewed by the Audit Committee, through Internal Audit, and submitted to the Board for its assessment.

# ENVIRONMENT



“  
*Green Energy for a Clean  
and Sustainable Future*  
”



**EDL's Agnew Hybrid Renewable Projects in Western Australia comprising 18 MW wind, 4 MW solar and 13 MW/4 MWh battery.**



# 4.1 COMBATING CLIMATE CHANGE

## KEY ENVIRONMENTAL ACHIEVEMENTS IN 2020

- H21, a collaborative gas industry programme led by NGN, continued in 2020. H21 is now focused on delivering two key pieces of work, **H21 NIC** and **H21 North of England**, providing detailed engineering solution for converting 3.7 million UK homes and businesses from natural gas to 100% hydrogen in order to reduce carbon emissions.
- AGN's Hydrogen Park SA ("HyP SA") Project, an Australian-first project to produce renewable hydrogen for blending with natural gas and supply to domestic customers, was awarded the 2020 Australian Engineering Excellence Award for South Australia and the 2020 Australian Pipelines and Gas Association Environment Award.
- HK Electric's new highly efficient combined-cycle gas-fired generating unit equipped with a selective catalytic reduction ("SCR") system, known as L10, was commissioned in February 2020. Compared with 2019, carbon emissions from electricity generation were reduced by about 16% with L10 in operation. HK Electric is also building two new gas-fired units (L11 & L12) which are scheduled to be commissioned in 2022 and 2023 respectively.
- The gas distribution companies achieved their target to reduce leakage: NGN by 14% during the regulatory period (April 2013 to March 2021), and WWU by 23.7% at March 2020 (2019: 20.9%) against its target of 14.9% by March 2021.
- EDL's global operations abated and avoided approximately 18.9 million tonnes of CO<sub>2</sub> emissions. EDL also delivered two major clean energy projects in 2020 – the Agnew Hybrid Renewable Projects in Western Australia comprising 18 MW wind, 4 MW solar and 13 MW/4 MWh battery, and the Indy High BTU Renewable Natural Gas Plant in Indiana, USA.

Many of our businesses have received numerous accolades for their contributions in this aspect especially in the area of environmental sustainability. Some of the environmental activities carried out involve launching trials in regard to transporting hydrogen in gas networks in the United Kingdom and Australia; and the development of hydrogen trains in the United Kingdom. As hydrogen is a major green energy of the future, the Group will continue to promote

its usage. Other environmental projects of the Group include mega-hybrid renewable energy projects in remote regions of Australia; investing in advanced technology to increase the intake of solar energy into electricity grids in Australia; capturing and converting methane gas to energy in New Zealand; generating energy from municipal waste in continental Europe; as well as investing in wind farms in Okanagan, Canada.

#### 4.1.1 CHALLENGES AND OPPORTUNITIES

Electricity generation is the largest source of greenhouse gas (“GHG”) emissions in the world. As environmental regulations become increasingly stringent in the coming decades, especially in Europe and Mainland China, utility companies could face significant operating and capital expenditures as the world transitions to a low-carbon economy. Failure in keeping up with the transition may negatively impact returns or even lead to asset write-downs in the long run.

Yet climate change also offers business opportunities by spurring innovation and inspiring new products and services that are low-carbon or even carbon-reducing. By proactively reducing GHG emissions in a cost-effective manner, it creates a competitive advantage for companies and mitigates unanticipated regulatory compliance costs. The transition to renewable energy from price-volatile fossil fuels may also enhance the resilience of the supply chain. These opportunities can foster competitiveness and open new market opportunities.

#### 4.1.2 OUR COMMITMENT

We recognise that investor and stakeholder interest in climate change has increased significantly and will continue to grow. Meeting the growing demand for energy while ensuring that the supply is reliable, affordable, clean and low-emission is both a challenge and an opportunity for our industry.

The Group is committed to mitigating its environmental impact on climate change, which could affect the Group’s businesses, financial conditions and growth prospects. We strive to further strengthen our resilience to climate change by identifying and addressing the risks and opportunities of climate change. Ongoing

assessment of the potential risks arising from climate change is necessary in order to ensure proper and timely strategies and responsible actions are taken to address the causes and effects of climate change on the Group’s operations.

In our Environmental Policy, we have outlined our position and principles on managing the direct impact arising from climate change, with several key points as follows:

- address climate change risks as part of the Group’s risk management process;
- set up long-term targets to reduce carbon emissions as appropriate, while enacting processes and systems to monitor the Group’s carbon footprint;
- incorporate climate change considerations into its business strategies;
- establish appropriate procedures and processes to prevent or minimise the damage that climate change may cause and make use of the opportunities that may arise; and
- reduce, where feasible, the production of greenhouse gases, ozone-depleting emissions and other air pollutants within the Group’s operations.

#### 4.1.3 HOW WE WORK

##### 4.1.3.1 UNDERSTANDING CLIMATE-RELATED RISKS

We are exposed to both the physical and transition risks of climate change. Physical risks of climate change could come in the form of acute events such as severe tropical cyclones and flooding, or chronic changes such as water stress, prolonged periods of drought and heatwaves that increase the chances of wildfires. In the short run, these acute events directly damage our facilities and assets, and disrupt our service delivery. In the long run, the chronic changes in climate can also gradually damage our assets and lead to asset write-downs.

# 4.1 COMBATING CLIMATE CHANGE

## 4.1.3 HOW WE WORK (CONT'D)

### 4.1.3.1 UNDERSTANDING CLIMATE-RELATED RISKS (CONT'D)

Besides the physical risks of climate change, climate-related transition risks could have a material adverse effect on the Group's business, financial condition and results of operations, and could adversely impact the Group's reputation. Understanding the location, nature and scale of these potential risks is crucial for effectively mitigating their impact.

UKPN has carried out a flood mapping exercise across its footprint, and site surveys have been undertaken to predict flood depths in extreme events to help design flood protection measures.

WWU has used the likelihood forecasts from the Adaptation to Climate Change risk assessment, in line with UKCP09 models, to determine the future extent of climate change impacts. The output of this model identifies the degree of impact for individual climate change risks and allows WWU to quantify the relative number of assets that

are forecast to be impacted in the future. WWU also developed a decision support tool to identify future action points where climate change risks become unacceptable, and adaptations could be implemented as part of planned work in advance of an impact.

### 4.1.3.2 RESPONDING TO THE PHYSICAL AND TRANSITION RISKS POSED BY CLIMATE CHANGE

The Group is committed to reducing its GHG emissions and other air pollutants within its operations and supporting the move to a low-carbon future through innovation and adoption of the latest technology and processes alongside environmentally-friendly energy sources. We achieve this commitment under the following pillars:

#### A. CONNECTING RENEWABLE ENERGY TO THE GRID

To promote the grid-connected renewable energy power systems ("REPS"), HK Electric purchases all electricity generated by customers' REPS at Feed-in Tariff rates. In 2020, Renewable Energy Certificates covering about 3.5 GWh of zero-carbon electricity generated by REPS of FIT customers and HK Electric's REPS were purchased by customers to offset their Scope 2 carbon emissions.



**EDL's Coober Pedy Hybrid Renewable power plant.**



**EDL's Agnew Hybrid Renewable Projects in Western Australia.**

EDL is developing a number of clean energy projects including a hybrid renewable project in Australia and several renewable natural gas projects in the USA. Following the success of the Coober Pedy Hybrid Renewable Project (4 MW wind generation, 1 MW solar PV, a 1 MW/500 kWh battery) which supplies about 75% of the town's power through renewable energy, EDL has delivered the 56 MW microgrid at Gold Fields' Agnew gold mine incorporating wind, solar and thermal generation and battery storage. This microgrid has surpassed EDL's target of providing Gold Fields with energy that is more than 50% from renewable sources, with 99.99% reliability. A 50% renewable energy fraction cuts 46,400 tonnes of carbon dioxide per year. EDL is about to commence construction of the Jabiru Hybrid Renewable Project in Australia's Northern Territory. EDL also successfully delivered the Indy High BTU Renewable Natural Gas (RNG) project in Indiana, USA in April 2020. Since then, construction has started at two other RNG projects in the USA.

## B. CARBON CAPTURE AND UTILISATION

AVR-Afvalverwerking B.V. ("AVR"), owned by Dutch Enviro Energy is the first European energy-from-waste company capable of large-scale CO<sub>2</sub> capture and delivery. The CO<sub>2</sub> capture plant in Duiven commenced operations in August 2019. AVR has started with the capture and supply of the first tonnes of CO<sub>2</sub> to greenhouse horticulturists, where the reused CO<sub>2</sub> contributes to reduced natural gas use, thereby making greenhouse horticulture more sustainable. The capture installation boasts an impressive total capacity of 100,000 tonnes per year. AVR is planning a similar installation in Rotterdam with a capacity of 500,000 tonnes per year. Besides, carbon capture and storage in depleted gas fields offshore is foreseen. The Dutch energy-from-waste sector has set a target of reducing CO<sub>2</sub> emissions by 1 million tonnes by 2030.



**100,000** tonnes

**CO<sub>2</sub> CAPTURED/  
YEAR BY AVR'S  
CARBON  
CAPTURE PLANT  
IN DUIVEN, THE  
NETHERLANDS**



**AVR's carbon capture plant.**

# 4.1 COMBATING CLIMATE CHANGE

## 4.1.3 HOW WE WORK (CONT'D)

### 4.1.3.2 RESPONDING TO THE PHYSICAL AND TRANSITION RISKS POSED BY CLIMATE CHANGE (CONT'D)

#### C. HYDROGEN ECONOMY

In the gas distribution sector, NGN and WWU are founding members promoting the H21 (hydrogen in the 21st Century) concept and related projects. H21 is a collaborative programme focused on demonstrating how converting the UK gas network to carry 100% hydrogen can tackle the UK's decarbonisation challenges. The focus of H21 includes delivering two key pieces of work, enabling a first policy decision on hydrogen to be made.

- H21 NIC: Presenting the quantified safety evidence that proves a future hydrogen gas network can be managed to the same high safety standard as the natural gas network of today.
- H21 North of England: A strategic report undertaken by NGN in partnership with Equinor and Cadent, establishing a clear pathway for decarbonising heat, setting out the design requirements of the infrastructure needed to convert the North of England to hydrogen.

WWU has assessed the combined energy demands and researched hydrogen supply and hybrid heating within the UK with the Hybrid-Hydrogen ("HyHy") project. The research project will study how to incorporate these two technology vectors into business plan development, contributing to the carbon compliance of UK regions. This allows wider regulatory and policy stakeholders to be engaged and provides long-term savings to customers with better long-term planning decisions.



**AGN's Electrolyser at HyP SA project.**



**AGIG won the Engineers Australia Australian Engineering Excellence Award for South Australia.**

AGN progressed the construction of a 1.25 MW hydrogen electrolyser plant at the Tonsley Innovation District in South Australia for the Hydrogen Park SA ("HyP SA") project. HyP SA is an Australian-first project to produce renewable hydrogen for blending with natural gas and supply to domestic customers via AGN's existing gas distribution network in South Australia, which will become operational in early 2021. A 5% hydrogen blend is the first step to lower GHG emissions and the next step is to extend the hydrogen footprint with projects considering up to 10% hydrogen blend before 100% conversion. The HyP SA project also supplies to industry via tube

trailers and aims to supply the transport sector in the future. This project will be used to analyse and develop business models for the use of “green” hydrogen utilising excess solar energy in the daytime and excess wind energy in the nighttime to progressively decarbonise gas supply. Its importance is reflected through the receipt of the 2020 Australian Engineering Excellence Award for South Australia and the 2020 Australian Pipeline and Gas Association Environment Award.

To expand AGN’s renewable gas footprint into Queensland, AGN has announced the construction of Hydrogen Park Gladstone (HyP Gladstone) with grant funding of AUD1.7 million provided by the Queensland Government in February 2020. This AUD4.2 million HyP Gladstone renewable hydrogen production facility involving the installation of a 175 kW electrolyser, enables to deliver up to 10% blended hydrogen across the city’s total 770 residential, small commercial and industrial customer base. The project is currently focusing on customer engagement, detailed engineering and design plans, and is expected to begin production in Q3 2022.

#### D. SMART CITIES

WWU continued development work on the Pathfinder 2050 model that allows cities, regions and countries to evaluate future scenarios of low-carbon supplies for heat, power and transport, allowing them to view the impact of increased integration of the gas and electricity networks in terms of costs and CO<sub>2</sub> reduction, collaborating with other industry players to share these insights. In addition, a new investment model was developed to assess how the gas network was impacted by changes to customer behaviour and the installation of new technologies, such as hybrid heating systems that allow customers to arbitrage between natural gas and electricity.



**WWU’s infrastructural investments include the development of biomethane fuel hubs to support greener public transport.**

HK Electric is in support of the Hong Kong Government’s vision to turn Hong Kong into a smart green city. It has commenced a full-scale rollout of smart meters in phases across its supply territory to encourage energy saving. It is expected that upon completion of the programme in 2025, smart meters will operate in and bring benefit to every home and business throughout the network.

United Energy has been chosen as the only Victorian network to take part in a new electric vehicle (“EV”) smart charging trial. This trial is supported by a grant of AUD835,000 from the Australian Renewable Energy Agency (ARENA) and will see smart chargers installed across residential, commercial and industrial parts of the network. The trial will remotely monitor and control the chargers via Origin Energy’s existing platform for managing distributed energy. Smart chargers will allow control of EV charging in order to avoid negative impacts on the grid, and maximise the use and value of renewable energy. The AUD2.9 million trial looks to help the energy sector better understand EV driver behaviour and whether drivers are comfortable with a third party having control of the charging process.

# 4.1 COMBATING CLIMATE CHANGE

## 4.1.3 HOW WE WORK (CONT'D)

### 4.1.3.2 RESPONDING TO THE PHYSICAL AND TRANSITION RISKS POSED BY CLIMATE CHANGE (CONT'D)

#### E. EFFICIENT OPERATIONS

As part of the 2019 – 2023 Development Plan, HK Electric is in the process of replacing aging coal-fired generating units at Lamma Power Station (“LPS”) with three gas-fired combined-cycle generating units, known as L10 (already commissioned in 2020), L11 and L12. The efficiency of these new units will be higher than that of the coal-fired units.

#### F. DEMAND SIDE MANAGEMENT

UKPN is investing in innovative and smart technologies to mitigate the transition risks by reducing its carbon emissions through better management of electricity demands. It deploys dynamic line ratings and dynamic transformer ratings that enable control engineers and planning engineers to continue to exploit the latent capacity of overhead lines and transformers at times of higher ambient temperatures. The deployment of predictive cooling on a number of major transformers in London’s networks enables UKPN to operate at an extended peak level for longer as transformer oil has been cooled prior to the peak load being experienced. In addition, UKPN uses demand-side responses in situations where peak loads cannot be managed within existing firm capacity due to reduced demand, demand movement or autonomous network management.



HK ELECTRIC'S PROPORTION OF GAS-FIRED POWER IS EXPECTED TO RISE TO ABOUT

**70%**

OF TOTAL OUTPUT IN 2023



**UKPN's engineers install new electricity cables under Battersea in London.**



**HK Electric's L10 gas-fired combined-cycle generating unit.**

United Energy deploys a “summer saver programme” as demand-side load management. Customers were given cash incentives to reduce electricity consumption. In addition, the peak demand reduction facilities defer network augmentations.

United Energy also received funding from the Australian Government to trial delivering grid stability services through voltage-reduction demand response capabilities on its electricity distribution network. United Energy is using its voltage management system to deliver 30 MW of emergency reserves. This helped prevent power outages for 14,000 customers each hour during summer heatwave events.



**At United Energy, proactive maintenance takes place routinely to ensure reliability levels.**

## G. REDUCING AIR AND FUGITIVE EMISSIONS

To reduce air emissions, HK Electric used cleaner fuel such as natural gas and low-sulphur coal with lower ash content. In addition, HK Electric continued to make use of emissions reduction facilities such as a selective catalytic reduction system, flue gas desulphurisation plants and low-nitrogen-oxide burner systems to reduce air emissions from LPS.

It is expected that in 2023, when all three new gas-fired generating units (L10, L11 & L12) are in operation, the emissions of sulphur dioxide (“SO<sub>2</sub>”), nitrogen oxides (“NO<sub>x</sub>”) and respirable suspended particulates (“RSP”) will have decreased by around 75 – 90% from the 2005 levels.



**UNITED ENERGY'S  
VOLTAGE MANAGEMENT  
SYSTEM WITH**

**30 MW**

**OF EMERGENCY  
RESERVES COULD  
HELP PREVENT POWER  
OUTAGES FOR**

**14,000**

**CUSTOMERS EACH  
HOUR DURING SUMMER  
HEATWAVE EVENTS.**



**United Energy's workers carried out roadside works. Systematic network maintenance underpins its high reliability levels.**



# 4.1 COMBATING CLIMATE CHANGE

## 4.1.3 HOW WE WORK (CONT'D)

### 4.1.3.2 RESPONDING TO THE PHYSICAL AND TRANSITION RISKS POSED BY CLIMATE CHANGE (CONT'D)

#### G. REDUCING AIR AND FUGITIVE EMISSIONS (CONT'D)

EnviroNZ reduces fugitive emissions of landfill gas by installing reticulation that ensures landfill gas is conveyed under vacuum to a landfill gas processing plant. Landfill gas is either destroyed via flare or utilised to generate electricity which is used onsite and the excess is exported offsite into the national grid.

Our gas distribution networks have plans to replace legacy pipe materials (cast iron, unprotected steel and others) in order to reduce fugitive emissions of methane from networks as well as move toward making networks hydrogen ready. Other benefits include improved reliability of supply and reduced public risk associated with gas leaks. NGN, WWU and AGIG have replaced 422 km, 337 km and 417 km of old gas pipelines during 2020 respectively.

For our toll road and expressway operations in Mainland China, the major source of air emissions is the vehicles using the expressway. Our own emissions are rather minimal compared to the number of vehicles passing through the expressway.

We are responsible for assisting highway patrol in refraining substandard vehicles, and we closely monitor vehicles carrying dangerous goods within the premises. We also send wreckers to return the road to normalcy in case of car accidents. While we have limited control over the emissions of road users, we seek to reduce their impact on the environment by ensuring smooth traffic

within our control to reduce congestions in case of traffic accidents and during peak periods. Shen-Shan Highway, due to geographical reasons, installs temporary storage tanks for its drainage system at strategic locations to avoid spill-over of dangerous liquid falling into the nearby reservoir in case serious traffic accidents happen. Besides, inefficient sodium lamps had been replaced by LED for its lighting system to save energy.

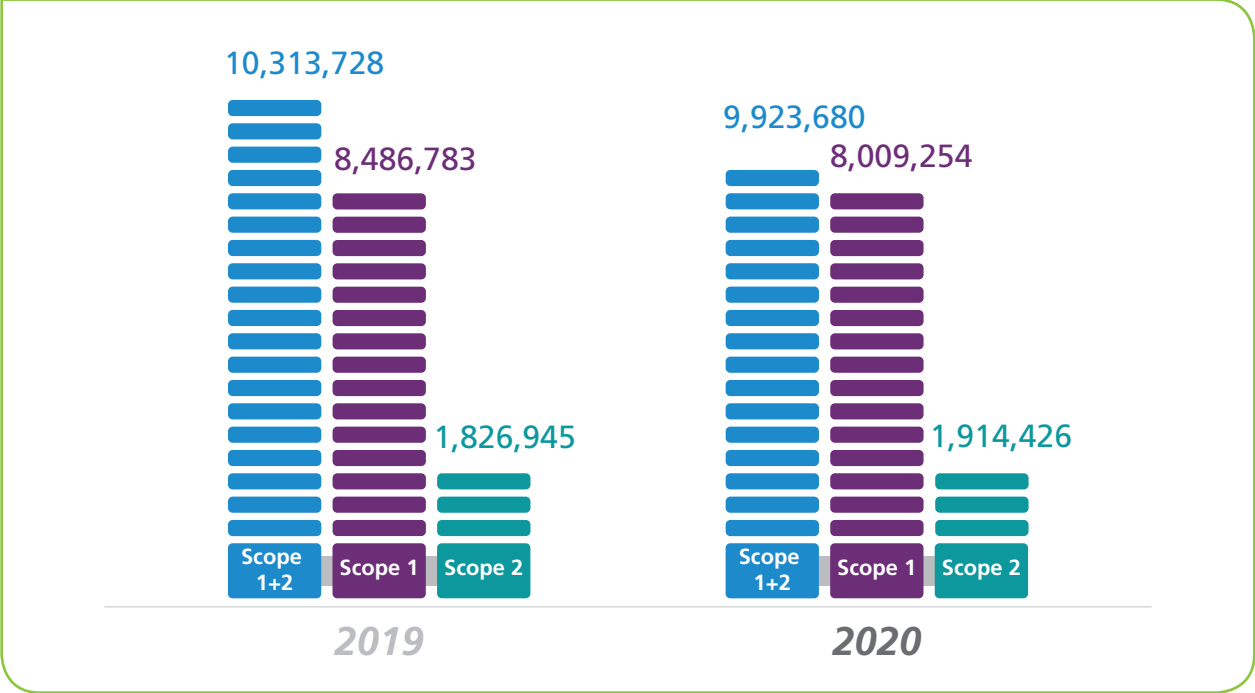
### 4.1.3.3 OUR PROGRESS

In 2020, our total carbon emissions consisted of 81% Scope 1 emissions, and 19% Scope 2 emissions.

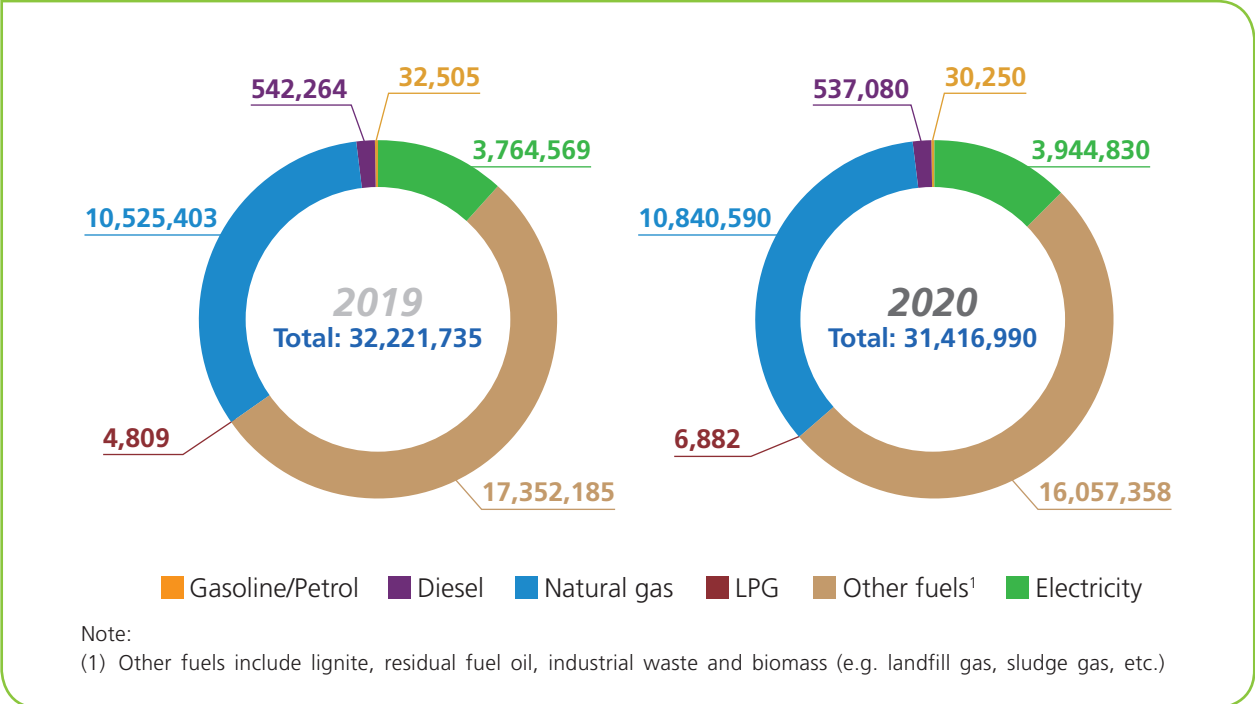
The Scope 1 emissions are direct emission from sources owned or controlled by an organisation, which were equal to 8,009,254 tonnes CO<sub>2</sub>e in 2020, with a 5.6% decreased from 2019. One of the main contributing factors to this fall in Scope 1 emissions is the continuous efforts by our operating companies to decarbonise the generation portfolio such as replacing or converting coal-fired units to gas-fired units, and to expand renewable energy, waste to energy, renewable natural gas and carbon capture and utilisation capacity.

The Scope 2 emissions include the emissions from purchased electricity of our businesses for their own use, and those associated with losses in the transmission and distribution networks for our electricity distribution companies. Compared to 2019, Scope 2 emissions increased by 4.8% to 1,914,426 tonnes CO<sub>2</sub>e, due to a greater level of estimation by the industry (due to lack of actual meter readings) in the calculation of network losses during the COVID-19 pandemic, and this led to a slight increase in the assumed network losses, purchased electricity and Scope 2 emissions. It is expected that the figures will be fine-tuned when the meter readings are updated.

GHG Scope 1 and 2 Emissions in The Past Two Years (tonne CO<sub>2</sub>e)



Energy Consumption in the Past Two Years ('000 kWh)



# 4.1 COMBATING CLIMATE CHANGE

## 4.1.4 LOOKING FORWARD

We will continue working with governments and others in the industry to identify possible decarbonisation pathways. We will set up long-term targets to reduce carbon emissions as appropriate, while enacting processes and systems to monitor the Group's carbon footprint.

In addition to the group-wide commitment, each business unit also has its own commitment regarding the decarbonisation. For example:

Business Unit	Target
Power Assets	<ul style="list-style-type: none"> <li>Reduce the percentage of <b>coal-fired units</b> in its generation portfolio from about 50% in July 2017 to <b>about 22%</b> post <b>2023</b>.</li> </ul>
HK Electric	<ul style="list-style-type: none"> <li>Reduce CO<sub>2</sub>e per electricity unit sold <b>by 35.5% by 2023</b>, not higher than 0.6 kg/kWh, compared to 0.93 kg/kWh in 2005.</li> </ul>
UKPN	<ul style="list-style-type: none"> <li>Reduce business carbon footprint ("BCF") by 2% per annum. Since 2014/15, UKPN has reduced BCF <b>by 25.5%</b>.</li> </ul>
Canadian Power	<ul style="list-style-type: none"> <li>Move to <b>100% capable of gas-firing by 2022</b>.</li> <li>Convert Sheerness power plant <b>from coal to natural gas</b> firing. The conversion of the first unit was completed in 2020 and the second unit is due to be completed next year.</li> </ul>
NGN	<ul style="list-style-type: none"> <li>Achieve <b>net zero</b> operational Scope 1 and Scope 2 carbon emissions <b>by 2031</b> (excluding gas shrinkage) and 2050 (including gas shrinkage), in line with science-based targets.</li> </ul>
AGIG	<ul style="list-style-type: none"> <li>Continue working with Australia's five peak gas bodies to develop <b>Gas Vision 2050</b> – a pathway to achieve <b>near zero emissions</b> in the gas sector.</li> </ul>
WWU	<ul style="list-style-type: none"> <li>Reduce GHG emissions <b>by 37.5% by 2035</b> compared to 2020 levels.</li> <li>Reduce gas shrinkage <b>by 10% by 2026</b>.</li> <li>Ensure at least <b>75%</b> of company vehicles are hybrid or ultra-low-emission vehicles <b>by 2026</b>.</li> <li>Reduce carbon emissions associated with non-operational travel <b>by 5% by 2026</b>.</li> <li>Become a <b>net-zero ready</b> carbon emission network <b>by 2035</b>.</li> </ul>
Alliance Construction Materials	<ul style="list-style-type: none"> <li>Reduce GHG emissions intensity per unit of concrete produced <b>by 25%</b> compared to 2007 levels. In 2020, 33% of the target was achieved.</li> </ul>

## 4.2 PRESERVING NATURAL ENVIRONMENT

### 4.2.1 CHALLENGES AND OPPORTUNITIES

Preserving biodiversity is extremely important and the electric utility industry and in ecologically sensitive areas such as North America or the European Union, utilities are subject to extensive environmental impact assessments and checking by the local regulators for project approval.

The possible negative impacts of existing assets and infrastructure projects such as power plants, transmission towers and wires, and hydroelectric on the surrounding ecosystem are subject to scrutiny of regulators. Therefore careful project planning, design, and operation is a must for the Group to minimise its impact on the local ecosystem and biodiversity.

### 4.2.2 OUR COMMITMENT

Preserving the natural environment is an integral part of our Environmental Policy. Below are the related strategic priorities emphasised in the policy:

#### Climate Change Management

- Addressing climate change risks as part of the Group's risk management process.
- Setting up long-term targets to reduce carbon emissions as appropriate, while enacting processes and systems to monitor the Group's carbon footprint.

#### Use of Natural Resource

- Reducing energy and water consumption and waste, managing effluent and facilitating ways to encourage more reuse and recycling in day-to-day operations.
- Encouraging the use of sustainable materials and the adoption of technologies to streamline production and operation processes.

#### Biodiversity

- Conducting operations with a life-cycle approach to land and habitat stewardship.
- Minimising disturbance and mitigating impact in natural landscapes by avoiding operating in areas with high biodiversity value.

### 4.2.3 HOW WE WORK

#### 4.2.3.1 ENVIRONMENTAL MANAGEMENT SYSTEM

As stated in the Environmental Policy, we are committed to working toward implementing an environmental management system ("EMS") to standardise the Group's approaches to both managing and reducing the environmental impact arising from its operations. Our key business units have their EMS with details of each company given as below:

HK Electric has in place three ISO14001 – certified EMS, which cover generation, transmission and distribution of electricity to Hong Kong Island and Lamma Island, and the development of power infrastructure. Australian Energy Operations outsources its development, operations and maintenance activities through direct contracts with VPN, with the relevant VPN entities having the ISO14001:2015 certification.

Other businesses with EMS certified to ISO14001 include NGN, WWU, UKPN, Seabank Power, AVR, VPN, Jinwan Power (under Power Assets), Ratchaburi Power (under Power Assets), Australian Energy Operations and ista<sup>2</sup>. The EMS of SA Power Networks is also developed in line with ISO14001.

<sup>2</sup> Covered the operations in Spain, England and Romania.

## 4.2 PRESERVING NATURAL ENVIRONMENT

### 4.2.3 HOW WE WORK (CONT'D)

#### 4.2.3.1 ENVIRONMENTAL MANAGEMENT SYSTEM (CONT'D)

Environmental awareness is one of the strategic focuses of our Environmental Policy and forms an integral part of our EMS.

UKPN conducts "Working in the Environment" training that highlights the potential impacts of its business on the environment. This course helps colleagues understand how to manage environmental issues and where to get information to alleviate or resolve such issues. In 2019/20, 76 employees attended this course, taking the total number to 303 by the end of March 2020.

#### 4.2.3.2 PROTECTING BIODIVERSITY

It is part of our Environmental Policy to protect the biodiversity and habitats in the area around our projects. We seek to minimise and mitigate the impact of our developments before we begin a project, and continuously monitor the potential impact of operating projects on biodiversity.

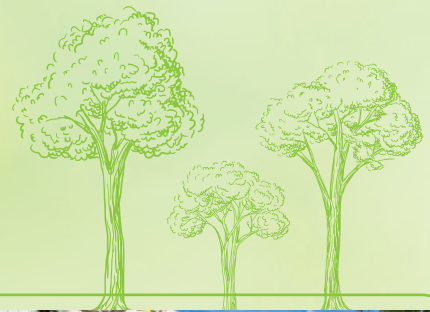
UKPN has committed to a Networks Green Action Plan (GAP) to enhance biodiversity around the sites, in particular substation sites. As part of the Green Action Plan initiative, UKPN identified 100 sites where it believes it can make a difference and has set a target of improving the biodiversity potential by at least 20%. UKPN partnered with ecological experts (ADAS and Wildlife Trusts) to assess the sites and determine a baseline biodiversity measurement. Following each survey, a biodiversity management plan was written with site-specific measures to enhance the biodiversity potential. In 2020 the main focus was on determining the 100 sites and setting plans. By 2021, UKPN aims to increase the biodiversity value by up to 30% at 100 sites to actively contribute towards minimising species decline and promoting net-gain.



INCREASE THE  
BIODIVERSITY  
VALUE BY UP TO

**30%**

AT 100  
UKPN SITES



**UKPN's worker. UKPN has committed to a Networks Green Action Plan (GAP) to enhance biodiversity around the sites, in particular substation sites.**

To ensure that work has no significant impact on wildlife and biodiversity, NGN undertakes additional planning procedures such as ecological assessments, when working in areas containing Conservation Sites of Special Scientific Interests. As for WWU, project-specific work is undertaken to avoid detrimental impacts on biodiversity, with local and limited improvements applied.

SA Power Networks has been working with Greening Australia and the Department of Environment and Water to improve biodiversity outcomes associated with SA Power Networks' operations and infrastructure. Initiatives include revegetation at the Kangaroo Island Power Station, investigating new types of wildlife diverters, mitigation of street light pollution and the relocation of a significant raptor nest near Kingscote.

CitiPower and Powercor are continually pursuing bushfire risk reduction best practices through new technology trials and adoption:

- High voltage covered conductor in the Powercor Network – 50 km trial installations.
- Early fault detection technology constantly monitors disturbances along overhead power lines and aims to trigger an inspection response prior to a defect condition manifesting into a permanent fault.
- Light Detection and Ranging (“LiDAR”) is used to conduct annual vegetation inspections. This technology is more accurate than ground-based visual inspection, and assists with data-driven assessment of vegetation growth to help optimise treatment cycles and prevent encroachment onto minimum clearance space.



**SA Power Networks' staff marking 'no go' zones to protect local heritage sites of significance at Lucky Bay, on South Australia's Eyre Peninsula.**



**UKPN's wildlife refuge station.**

## 4.2 PRESERVING NATURAL ENVIRONMENT

### 4.2.3 HOW WE WORK (CONT'D)

#### 4.2.3.3 WATER MANAGEMENT

Water is a basic and irreplaceable natural resource in many of our activities. Based on the water risk framework of the World Resources Institute's (WRI) publication on financial risks from water constraints on power generation, we currently have no production plants/sites located in water-stressed areas and our operations are considered of low risk. Despite this, we have devised a plan for water conservation which includes reusing wastewater and rainwater at our power stations, adopting water efficient appliances in our premises and preserving water quality by reducing discharge.

Ratchaburi Power uses HRSG (heat recovery steam generator) blowdown for watering to reduce the water usage. The cycle of cooling water is also optimised to reduce raw water use and water discharge.

EnviroNZ reduces water consumption by collecting stormwater at ChemWaste Auckland and Christchurch, Hampton Downs Landfill, EnviroFill North and EnviroFill South. Stored stormwater is used for a range of operational uses. In 2020 consent was obtained to allow the offsite use of stormwater. This allows us to supply water to customers (whose operations are impacted by drought conditions).

### LOOKING FORWARD

In 2020 and beyond, we will continue to carefully manage our water usage and source water responsibly across our businesses. In particular, UKPN aims to reduce existing water consumption at the top six depots by 10 – 15% by 2021. UKPN will accomplish this by installing Hippo water bricks and push taps (water-saving devices) at the office sites. Northumbrian Water has established a 2025 goal to reduce water consumption by 15% in the North and 17.5% in the South.

#### 4.2.3.4 MANAGING WASTE AND EFFLUENT

Another strategic objective of our Environmental Policy is the sound management of waste and effluent. In order to continuously improve, we look for opportunities to implement reuse and recycle initiatives that result in net positive impacts on the environment.

#### A. PROPER DISPOSAL

To expand its range of environmental services, AVR launched one of the largest plastic separation facilities in the Netherlands, with a capacity of 430,000 tonnes. At its Rozenburg facility, AVR also connected its biomass processing installation to the energy network to provide, apart from electricity, heat and steam to key customers.

EDL has greatly improved waste tracking and reporting processes, and is working on reducing waste generation, particularly in the areas of engine oil, oily water and coolants. As for WWU, hazardous solid waste is stored securely at depots within locked units or managed open storage areas. The waste is segregated into clearly-defined hazardous waste streams at each depot. At NGN, approximately 99.5% of the waste by weight is excavation spoil. Spoil is excavated, segregated by type on-site and visually assessed for contamination. Clean spoil is sent off-site to recycling centres for processing into recycled aggregate. Contaminated spoil is segregated, tested, classified and then sent to the appropriate facility for treatment and/or disposal.



**NGN's gas engineer replaced ageing metal pipe with modern equivalents in Sunderland, the UK.**

At Reliance Home Comfort, logs of refrigerant, compressor oil, and mercury are maintained at the branches for sound compliance and branch management.

## B. HAZARDOUS WASTE MANAGEMENT

We are extremely careful about managing waste generated from our operations, including the by-products of energy generation. Our collective efforts to reduce waste involve our employees, contractors, suppliers, regulators and other third parties. We advocate waste reduction at the source and encourage the reuse and recycling of waste for other projects. Waste management plans have been formulated and implemented to enable recycling and reuse, and proper storage, collection, treatment and disposal of waste. Temporary wastewater storage and treatment facilities have been installed at power plant construction sites to recycle wastewater generated from bore piling work to reduce wastewater discharge. Furthermore, our power plants have been collecting generation by-products including ash and gypsum for industrial use, such as the manufacturing of cement.



**SA Power Networks' technicians carried out work on overhead power lines to maintain safety standards.**



## 4.2 PRESERVING NATURAL ENVIRONMENT

### 4.2.3 HOW WE WORK (CONT'D)

#### 4.2.3.4 MANAGING WASTE AND EFFLUENT (CONT'D)

#### B. HAZARDOUS WASTE MANAGEMENT (CONT'D)

SA Power Networks conducts substation audits each year to assess its oil-filled assets (such as high voltage transformers and insulators) against safety, condition and environmental criteria. It also checks for PCB (polychlorinated biphenyl) contamination from old transformers and circuit breakers. Substations located close to homes, offices, waterways or conservation areas or that are considered high risk, may require the installation of bunding (a type of wall) around transformers to protect the surrounding area from a leak.

#### C. REDUCE, REUSE AND RECYCLE

According to its Environmental Policy, HK Electric seeks to reduce, reuse, recover and recycle the waste generated. Waste generated from the construction activities associated with the gas-fired generating units, L11/L12, at the LPS is recycled or properly disposed of by different categories. Temporary wastewater storage and treatment facilities have been installed on-site to recycle wastewater generated from bore piling work to reduce wastewater discharge.

Alliance Construction Materials actively seeks opportunities to recycle concrete waste and solid waste extracted from plant washout. It has also introduced a waste concrete recycling machine to turn the returned concrete into recycled aggregates that can be used in concrete in order to facilitate the circular economy.

Anderson Asphalt produces asphalt which contains recycled asphalt material and also sells milled asphalt material to cartage subcontractor for material reuse or recycling, and recycles chemical solvent for asphalt testing. Green Island Cement's recycled castable and refractory bricks are recycled by qualified refractory brick manufacturers to prevent pollution. Low-quality limestone is used in combination to utilise mine resources and reduce stripping waste. High-sulphur limestone is independently used for cement production and to reduce stripping waste. Desulfurised gypsum produced by the desulfurisation system is used for cement production to reduce industrial by-products.



**Alliance Construction Materials's Concrete Cement Mixer Truck.**

## D. LOOKING FORWARD

In the coming year, we will continue striving to reduce waste sent to landfills. Our focus on waste includes recycling and reusing materials where possible, and setting waste reduction and/or recycling targets where viable. Many of our businesses have made the formal commitments in reducing waste. For example:

Business Unit	Target
UKPN	<ul style="list-style-type: none"> <li>Divert more than <b>90% of the waste from landfills</b> and recycle more than 80% of the waste from the top six sites by December 2021. To achieve this target, UKPN is progressing with plans to pilot best-practice recycling which involves establishing improved monitoring and measuring recycling practices, and initiatives such as the enhanced behavioural campaign and the roll-out of new fit for purpose bins.</li> </ul>
WWU	<ul style="list-style-type: none"> <li>Divert at least <b>80% of excavated spoil materials</b>, which accounts for over 95% of total waste generated by WWU, from landfills by 2026.</li> </ul>
Seabank Power	<ul style="list-style-type: none"> <li>Investigate new technologies and the ability to reduce the amount of <b>back up biocide dosing</b> being used and in chemicals for the secondary treated sewage water used as process cooling water.</li> </ul>
Alliance Construction Materials	<ul style="list-style-type: none"> <li>Reduce waste generated from concrete production to <b>0.02T/m<sup>3</sup> of concrete produced</b>. This target was achieved in 2020.</li> </ul>

### 4.3

## REGULATORY COMPLIANCE

We regard compliance with laws and regulations as one of the top priorities and there are established policies and accountability mechanisms to ensure regulatory compliance in various aspects of our operations. The management is committed to staying abreast of the latest regulatory developments and providing all necessary training for relevant personnel. We also dedicate extensive efforts to ensure there are effective monitoring

and detection measures to track regulatory compliance.

During the reporting period, we were not aware of any non-compliance with laws and regulations having a significant impact on the Group relating to air and GHG emissions, discharge into water and land, and generation of hazardous and non-hazardous wastes.

# SOCIAL



Human Capital Development



Cybersecurity



Community Engagement

“ We are a responsible employer, business partner and community member. ”



Supply Chain Management



Regulatory Compliance



Occupational Health and Safety

**SA Power Networks' field employee. SA Power Networks aims to get more women into Science, Technology, Engineering, and Mathematics ("STEM") careers.**

# 5.1 HUMAN CAPITAL DEVELOPMENT

## KEY SOCIAL ACHIEVEMENTS IN 2020

- In early 2020, EDL donated a total of AUD262,790 to support relief efforts for the devastating Australian bushfires, which continued for almost nine months and wiped out more than 11 million hectares. Of this total amount, AUD12,790 came from matching employee donations across the business.
- UKPN was ranked in the top 10 companies in terms of complaint handling in the 2020 UK Customer Satisfaction Index (“UKCSI”), which benchmarks customer satisfaction.
- WWU continued to provide additional assistance to the most vulnerable customers within its geographical coverage through its Social Obligations Steering Group.
- Under the pandemic, HK Electric continued to care for the vulnerable elderly through its re-engineered “CAREnJOY” programme. Regular news feeds and phone calls were arranged to replace home visits and community talks, keeping single elders connected to relieve the psychological impact of isolation following prolonged service and activity suspension.

“  
*We strive to provide a safe and rewarding workplace for our employees, and aspire to be an attractive employer.*  
 ”

### 5.1.1 CHALLENGES AND OPPORTUNITIES

The attraction, retention and development of talent are essential for the Group’s long-term development. The risk of increased turnover and associated costs of rehiring, loss of intellectual and human capital attrition may pose threats to the ability to attract and retain talent. In recent years, the rapid evolution of the utilities business has led to new demand for employees with the IT and data analytics skills necessary to modernise the grid. There are also risks of operational disruptions from labour strikes which may negatively impact utilities services to customers.

At the same time, through revisiting the recruitment process and focusing on diversity in the workplace, we can improve our recruitment and retention strategies to attract the right talent. With the increasing participation of women in the utilities sector, focusing on diversity is likely to improve the industry's ability to meet its workforce needs.

## 5.1.2 OUR COMMITMENT

The Group's success through excellence depends on the performance of its employees at every level. The values the Group inculcates in its employees are candour, courtesy, and ability to deal with change and respect for humanity, personal dignity and privacy.

As stated in our Corporate Social Responsibility Policy, we are committed to:

- providing a positive work environment that values the wide-ranging perspectives inherent in our diverse workforce and fostering individual growth and achievement of business goals;
- providing a positive work environment where people can grow and offering a wide range of training and development programmes and interest courses and activities;
- ensuring internal equity and external competitiveness of staff remuneration and recognition; and
- providing a safe workplace for all our employees.

## 5.1.3 HOW WE WORK

### 5.1.3.1 TO RECRUIT AND RETAIN DIVERSE TALENT

The recruitment, hiring and performance appraisal processes form the foundations of positive, long-term employee relations.

To increase the pipeline of diverse and qualified candidates, HK Electric participates in the Virtual Career Fair organised by The City University of Hong Kong to promote its employer brand and different entry positions in customer service and IT. Besides, online recruitment talks are delivered to the students of the local universities to promote its Graduate Trainee Programme, which is its key breeding ground for future talents. In 2020, HK Electric has recruited a total of 5 graduate trainees. The trainee programme covers a wide scope of learning areas including familiarisation sessions, sharing sessions, workshops on email writing skills, and a mentorship programme.



***This year saw a record number of applications for VPN's 2021 Apprenticeship programme - a total 1,237 applications were received. This represents an increase of 56% when compared to last year's number of applicants.***

# 5.1 HUMAN CAPITAL DEVELOPMENT

## 5.1.3 HOW WE WORK (CONT'D)

### 5.1.3.1 TO RECRUIT AND RETAIN DIVERSE TALENT (CONT'D)

To retain talent, we provide competitive compensation packages, and eligible employees are entitled to additional incentives for their contributions to the company's growth, profitability, and other goals.

As an additional measure to reinforce employees' sense of belonging and commitment, WWU introduced a flexible benefits scheme in 2015, allowing colleagues to choose additional benefits alongside their standard benefits packages. Every year WWU improves the offering with additional benefits in response to colleagues' feedback.

We seek to protect the well-being of our staff by encouraging a healthy work-life balance. To ease work-related stress, a range of generous paid-leave entitlements and flexible work arrangements are provided to eligible employees. A wide range of initiatives including interest classes, seminars, health talks, training courses and fitness activities are held to help staff maintain work-life balance.

HK Electric seeks to protect the well-being of the staff by encouraging a healthy work-life balance. HK Electric is a signatory to the Joyful@Healthy Workplace Charter launched by the Department of Health and the Occupational Safety and Health Council. To promote employees' wellbeing, HK Electric organised a series of online interest classes such as DIY face mask cover, leathern rose and towel animals through online live broadcast for employees to join via their office desktop computers. Also, flexible work arrangements are offered to employees during the COVID-19 pandemic.

To enhance its reputation as a family-friendly employer and increase retention rates, UK Rails introduced a maternity coaching benefit for employees that covers before, during and after maternity leave. This programme supports employees to manage the transition period into parenthood and returning to work.

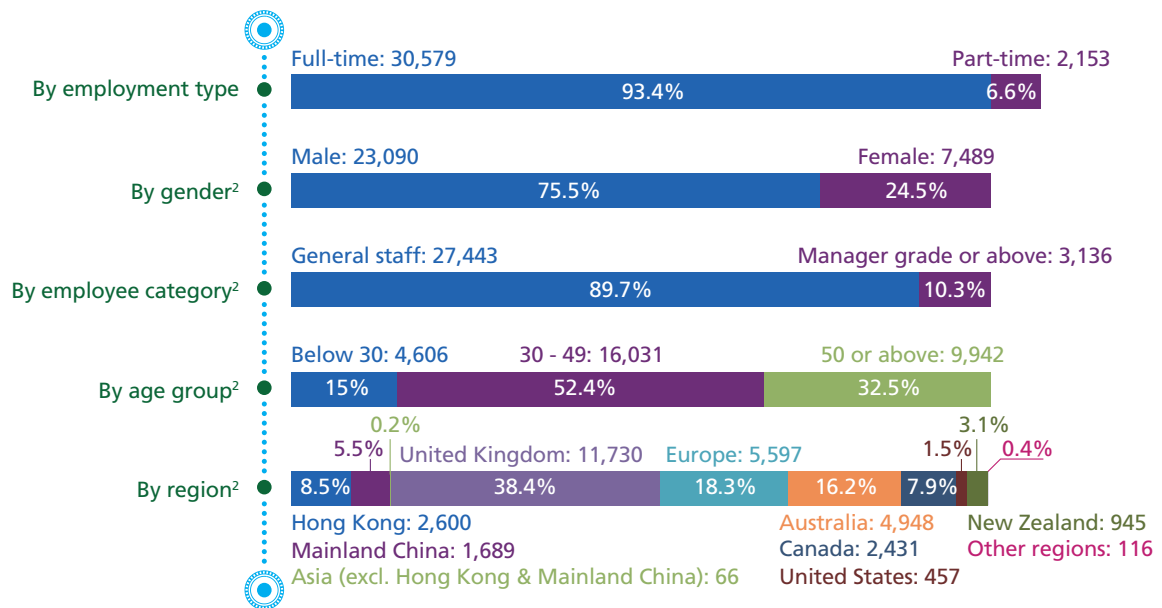
Park'N Fly provides a supplemental health plan for all employees who satisfy the length of employment criteria. The costs of selected healthcare provisions are covered by Park'N Fly to support the personal health of employees and increase retention rates.



All employees have the opportunity to grow through challenging work and be rewarded for their efforts.

To assist employees to gain a professional qualification within their career field, UK Rails provides professional apprenticeship opportunities to existing employees.

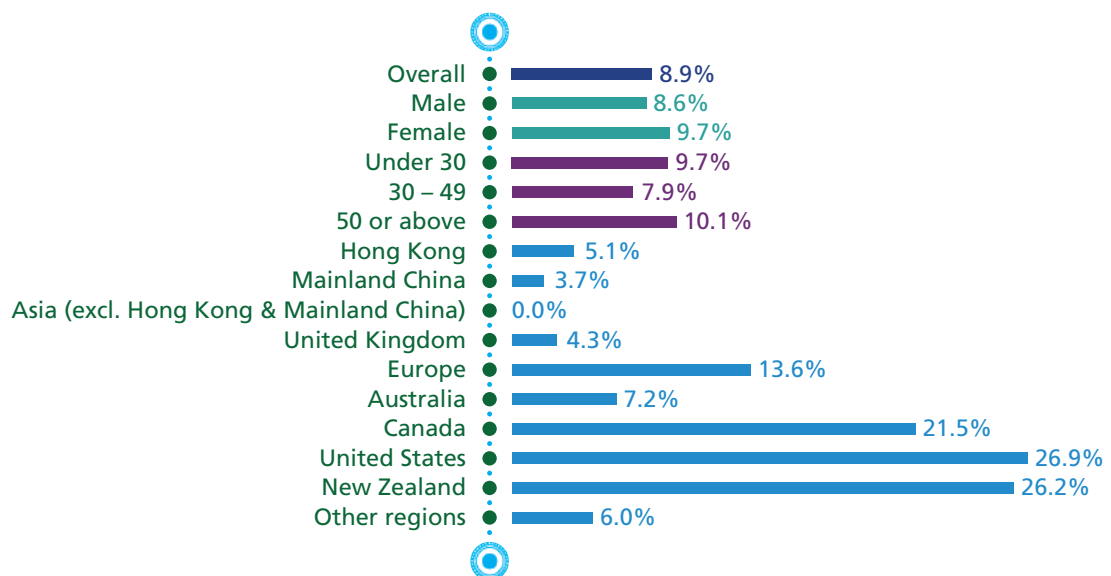
### Employee Profile<sup>1</sup>



Note:

- (1) In-scope entities only; while Husky Midstream is excluded, as all the employees are outsourced from Husky Energy
- (2) Full-time employees only

### Employee Turnover<sup>1</sup>



Note:

- (1) Turnover rate refers to full-time employees of the in-scope entities (excluding Husky Midstream) only, which is calculated based on the employee departures during the year, divided by the average total number of employees as at 31st December, 2020.

# 5.1 HUMAN CAPITAL DEVELOPMENT

## 5.1.3 HOW WE WORK (CONT'D)

### 5.1.3.2 TRAINING AND DEVELOPMENT

The professional growth of our people is essential to the growth of our business. We invest heavily in training to keep our people abreast of the latest developments in the industry and enhance their knowledge and performance. Training programmes are developed by respective business units to provide the most relevant learning experience that suits employees' specific needs.

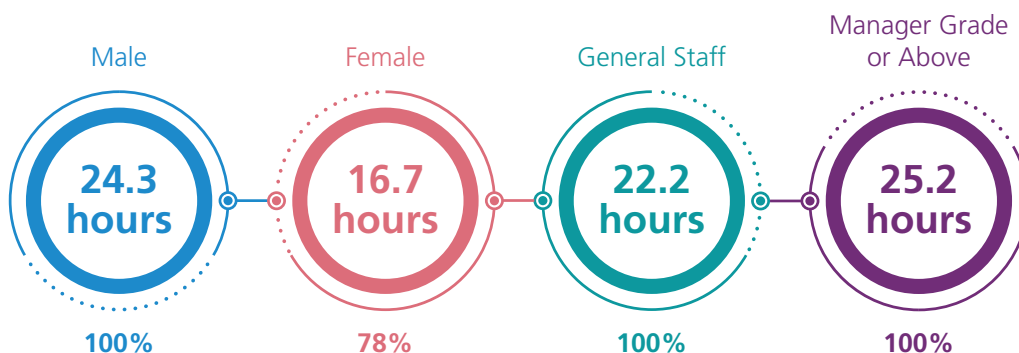
The Group ensures that all its staff is professionally trained and suitably qualified for their role. Furthermore, the Group and most of its operating companies conduct various employee development programmes to suit their specific business needs and run rigorous leadership development programmes for eligible employees to enhance the successive planning needs.

VPN conducted learning and development programmes for employees to reduce incidents associated with human factors. These human factors programme refers to the quad threats that include autopilot, distractions, shortcuts and assumptions and workload. The training provided to the Field Services Teams strived to reinforce knowledge of the quad threats factors and raise the individual's awareness of relevant countermeasures.



**VPN's workers at the new depot in Shepparton, northern Victoria.**

#### Percentage of Employees Who Received Training and Average Hours of Training Per Employee by Gender and by Employee Category





In 2020 we provided 687,042 hours of training and development for full-time employees.

Employees at every level globally are provided with opportunities to develop themselves as leaders.

HK Electric builds talent development programmes to inspire and enhance the leadership of future leaders. In 2020, HK Electric stepped up actions to nurture the leadership pipelines through leadership bootcamp initiatives, book review sessions, coaching and mentoring, and action-learning projects. Apart from these activities, the participants received mentorship from senior executives or department heads to widen their perspectives. HK Electric further adopted e-learning and multi-media approaches to facilitate interactive and self-initiated learning. Harnessing a newly set-up e-learning portal, HK Electric offered six webinars on leadership and two e-learning series to its Leadership Development Programme participants. Among 77 mid-level participants of the Leadership Development Programme since 2010, 85.7% of them remain with HK Electric while 64.9% have already been promoted to senior leadership positions. HK Electric also directed more resources in conducting lecturer-led training via online conference tools in view of impacts from COVID-19. All employees could undergo self-learning through accessing the learning resources available on employee communication platforms such as HK Electric's intranet portal and "My HKE" mobile app.



**HK Electric's virtual meeting during the COVID-19 pandemic.**

With a focus on developing new talent and succession planning, Northumbrian Water currently has 45 employees studying for an apprenticeship qualification and 50+ employees studying for formal qualifications to improve their work knowledge and performance. Northumbrian Water is also investing in the critical skills needed for successful leaders, and has implemented the Leadership and Management Development Programme, a programme to improve the capability and performance of managers in the business.



**Northumbrian Water's Leadership conference.**

# 5.1 HUMAN CAPITAL DEVELOPMENT

## 5.1.3 HOW WE WORK (CONT'D)

### 5.1.3.3 DIVERSITY AND EQUAL OPPORTUNITY

Having a diverse and inclusive workforce can provide different perspectives on how we conduct our businesses and ultimately benefits our business performance. We strive to provide an equal opportunity work environment that is free from harassment and discrimination and promotes unbiased decision-making.

We enforce an anti-discrimination policy and have zero tolerance for harassment in any form. All employees, irrespective of race, gender or religious beliefs, receive equal opportunities and our recruitment and promotion processes are based purely on performance. A Diversity Committee comprising representatives from different business units has been established in many of our operations around the world to raise awareness of diversity among the workforce.

Measures to promote gender diversity continued in 2020.

EDL achieved several diversity and equal opportunity goals in 2020. EDL is on track to meet its gender diversity target of 25% females in its global workforce by 2023, achieving 20% in 2020. One of the initiatives in support of this effort includes a maternity leave policy of at

least 3 months' full pay for the primary caregiver across all countries where EDL operates. EDL also rolled out online diversity and inclusion training globally, which will be refreshed every two years. In Australia, EDL provided summer internships to participants from CareerSeekers and CareerTrackers, not-for-profit organisations that respectively assist migrant and Aboriginal and Torres Strait Islander university students into career pathways. EDL's Australian business also launched its inaugural Reconciliation Action Plan, to improve opportunities for engagement and participation with First Nations peoples. In the USA, the North American D&I Committee was established to focus on the USA and Canadian diversity and inclusion programmes.



**SA Power Networks' Electrical Apprentice intake in 2020 resulted in a 50/50 gender split for the first time. SA Power Networks aims to get more women into STEM careers.**

AVR seeks to promote diversity and inclusivity within the departments as part of the selection process. In 2020, AVR ensured that there was at least one female worker in each shift at the Rozenburg production plant. Also, AVR further invested in social return opportunities at both the Duiven and Rozenburg plants for Syrian refugees. A better balance in both diversity and inclusivity was achieved in the workplaces.

#### 5.1.3.4 TWO-WAY COMMUNICATION

The Group always strives for effective, open, two-way communication and various effective communication channels have been put in place.



**UKPN's workers. UKPN conducted monthly polling and annual survey for improved awareness, full compliance and increased levels of employee engagement.**

In order to regularly solicit employee observations, attitudes and opinions, UKPN conducts monthly polling and annual survey for improved awareness, full compliance and increased levels of employee engagement.

Uniform communication procedures are applied across AGIG to allow employees to provide honest feedback to the group about their employment experience. AGIG also provides employees with a channel to escalate any unfair or unequal treatment they encounter.



**NGN maintains regular dialogue with employees.**

## 5.2 OCCUPATIONAL HEALTH AND SAFETY

### 5.2.1 CHALLENGES AND OPPORTUNITIES

Due to the nature of the operations, our companies are exposed to a range of health and safety risks. If appropriate safety measures are not in place, the possible occurrence of work-related incidents, injuries, diseases and deaths can add to a company's costs and cause damage to its corporate's reputation. Therefore, creating a safe and well-supervised working environment is of utmost importance in the division's day-to-day operations.

### 5.2.2 OUR COMMITMENT

The Group is committed to offering a safe and secure environment for its employees, contractors, customers and other stakeholders when they are at Group facilities and premises. We encourage a company-wide safety culture where everyone is responsible for making every workday healthy and safe from our top management and throughout the Group.

The commitment of top management to health and safety issues is formalised in the Health and Safety Policy, which is based on the following key principles:

- complying with all applicable laws and regulations in the relevant jurisdictions;
- meeting industry-specific standards or referencing relevant best practices;
- adopting local or international health and safety guidelines for goods and services purchased;
- maintaining a safe working environment;

- providing employees and contractors with guidelines or training and development specific to their job requirements;
- assessing the health and safety performance of contractors and suppliers on a regular basis;
- engaging employees and contractors through information sharing and programmes to improve their health and well-being; and soliciting feedback for continuous improvements;
- monitoring and reporting health and safety performance;
- providing adequate resources to implement this Policy; and
- enforcing the implementation of this Policy with regular reviews and internal audits.

### 5.2.3 HOW WE WORK

#### 5.2.3.1 HEALTH AND SAFETY MANAGEMENT SYSTEM

Well-established health and safety management systems have been adopted in different business units to ensure compliance with local regulatory requirements. For example, HK Electric, UKPN, WWU, Seabank Power, SA Power Networks,



**WWU's staff working on Clyst Bridge in Topsham as part of its gas pipe upgrade programme.**

and AVR have safety management systems in place that conform to international standard ISO45001 or OHSAS 18001, to protect their employees, customers, contractors and the public by conducting their businesses in a safe and socially responsible manner.

### 5.2.3.2 EMERGENCY PREPAREDNESS AND CRISIS MANAGEMENT

Our goal is to create a controlled work environment where our people and assets are safe and our operations have minimal impact on the environment and project area communities. We have plans and processes in place to help prevent and prepare for, respond to, and recover from potential emergencies such as fire, oil and chemical spills, typhoons, flooding, emergency evacuations, rescues from confined spaces and heat-stroke treatment.

The High Impact Low Probability (HILP) programme was established to ensure UKPN has an enhanced programme in place to effectively respond to large-scale High Impact events. The programme is underpinned by workstreams that cover all of the important aspects expected in such a response. For instance, UKPN took part in a national cybersecurity exercise to test the current process and identify further opportunities for improvements to ensure that there is sufficient protection and a robust response for cyber-attack as one kind of High Impact events. To minimise the impact of a crisis on the delivery of service to customers, a central team coordinates the response at either a strategic or tactical level. UKPN also has a holistic Business

Continuity Management System (BCMS) that builds a framework for resilience by identifying potential threats to the business and the impacts on the business operations these might cause.

EDL conducts Emergency Management and Crisis Management Awareness training to ensure senior managers are well-positioned to respond swiftly to emergencies and crises. The annual review of the Crisis Management and Business Continuity Planning Programme updates materials and process documents. Training scenarios and business-relevant emergency response scenarios are delivered to executives, senior leaders and support workers to further build capability and resilience.



***EDL's workers. EDL conducts Emergency Management and Crisis Management Awareness training to ensure senior managers are well-positioned to respond swiftly to emergencies and crises.***

## 5.2 OCCUPATIONAL HEALTH AND SAFETY

### 5.2.3 HOW WE WORK (CONT'D)

#### 5.2.3.3 HAZARD IDENTIFICATION AND RISK ASSESSMENT

We are committed to rigorously managing the risks associated with hazardous processes, such as those with the potential to result in catastrophic fires, explosions, and sudden release of toxic materials.

Health and safety monitoring systems and formal audit programmes are established. Audits on the safety management system at the corporate level, Transmission and Distribution (T&D) Division-level and Generation (GEN) Division-level are conducted not less than once every 12 months by Registered Safety Auditors to ensure all necessary safety regulations/requirements are strictly followed.

EDL continued to improve the Shared Analysis Management (SAM) system across the business

to provide an effective hazard and incident management recording and reporting process. In addition, EDL launched the global Safety Leadership Awards to reward positive safety leadership behaviour and the Take 5 initiative, which serves as a hazard/risk review prior to a task being conducted. Weekly safety leadership meetings are held by operations teams, with participation from corporate and operational support services staff. The increased focus on safety leadership, improved reporting and effective delivery of the Take 5 process have changed behaviours across the EDL global workforce, resulting in improved safety performance.

A High-Risk Controls awareness programme was released in August 2020 by VPN as the key component for this year's HSE Hazard Awareness and Compliance programme. Nine High-Risk Controls standard have been developed that outline the minimum requirements for undertaking high risk work. The standards are based on past incidents records, legislative requirements and industry best practice. The programme has been communicated throughout the business with a view to reducing high-consequence incidents to protect its people's health and safety.

Occupational health and safety measures are adopted by EnviroNZ to proactively identify and control key hazards and risks associated with Site and Fleet operations. EnviroNZ focuses on risk-assessed prioritised projects to eliminate hazards, mitigate risk and enhance safety culture.



**An EnviroNZ worker at the material recovery facility in Hamilton, New Zealand.**

#### 5.2.3.4 HEALTH AND SAFETY COMMITTEE

To ensure we maintain a safe working environment, we leverage safety committees to review and address our work-related injury risks.

The Health and Safety Committee of Wellington Electricity meets every quarter to review issues requiring Board governance or guidance. A formalised Safety Leadership Structure is in place to help ensure that health and safety leadership is provided throughout the business.

WWU has the Health and Safety Executive (HSE) consultative committee, which includes a representative from the trade union, with the CEO being the chairman of the committee.

#### 5.2.3.5 CONTRACTOR SAFETY PROGRAMME

We continue to collaborate with our contractors to develop and implement innovative solutions for improving health and safety performance to ensure we are prepared for the increase in work programmes associated with our growth projects.

Safety is integrated into tender processes and we require all contractors at our sites to follow all applicable workplace safety and health requirements. Also, there are various promotional campaigns for HK Electric's contractors including the Life First Campaign; Health and Safety Week; Safety, Health and Environment Day; and Health and Safety Talks. Relevant safety information is available on its website for third-party contractors carrying out work near its power supply lines.

#### 5.2.3.6 PROMOTION OF OCCUPATIONAL AND PSYCHOSOCIAL HEALTH

Our employees' health and safety is a top priority. This is especially true in the face of the COVID-19 pandemic.

To help staff members during the COVID-19 pandemic, SA Power Networks conducted health promotion and mental health programmes via an online Health Hub and Wellness Portal. New initiatives developed during 2020 include the Health Hub @ Home, which focuses on the health challenges arising from working from home. Features such as mental health first aid, mindfulness and resilience training courses, and a Traumatic Event Response service for workers exposed to distressing incidents have been made available to protect employees' physical and mental health.

In order to reduce serious injuries, United Energy developed and implemented a High-Risk Control programme for internal employees. The programme includes face-to-face learning and an iLearn package for all employees to improve knowledge of the controls for the highest risk activities that are conducted by employees and contractors.

To inculcate a caring and supportive culture at the workplace, especially during the COVID-19 pandemic, more than 75 HK Electric employees who previously received training on employee counselling skills continued to provide just-in-time emotional support to staff in need. As continuous inspiration for the Good Neighbours' Club, enlightening stories and useful tools and resources were shared on the HK Electric intranet portal and in-house mobile app "My HKE".

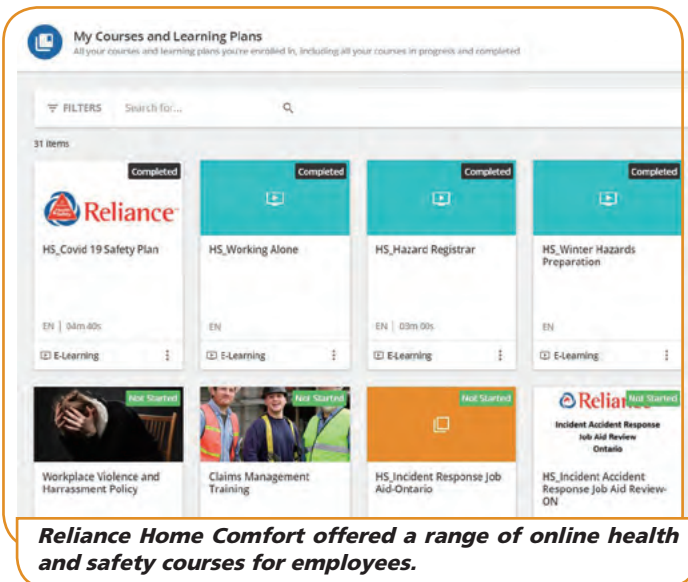
# 5.2 OCCUPATIONAL HEALTH AND SAFETY

## 5.2.3 HOW WE WORK (CONT'D)

### 5.2.3.6 PROMOTION OF OCCUPATIONAL AND PSYCHOSOCIAL HEALTH (CONT'D)

Apart from the above, an Info Hub of COVID-19 was set up on HK Electric’s intranet portal and “My HKE” mobile app to convey useful information relating to precautionary measures against COVID-19 to employees in the form of in-house educational videos, posters, news and announcements. A total of 11 in-house educational videos on precautionary measures were produced and two quizzes were launched in 2020 to reinforce employees’ understanding and application of the precautionary measures.

Reliance Home Comfort has developed a variety of training resources for all team members to address injury and incident trends. All internal members are required to complete training or awareness courses for their related tasks to increase their safety and well-being. Each training topic has specific frequency requirements. The frequency has been increased to ensure safe work procedures are prioritised.



**Reliance Home Comfort offered a range of online health and safety courses for employees.**

To provide employees with an environmentally friendly and healthier option for their daily commute, UK Rails launched a cycle-to-work scheme for all employees.



2

**WORK-RELATED FATALITIES DURING THE YEAR; 1 IN 2019 AND 0 IN 2018**

4,129

**LOST DAYS DUE TO WORK INJURY**



**VPNs' field service teams carry out works in full personal protective equipment to keep them safe without compromising reliability.**



## 5.3 CYBERSECURITY

### 5.3.1 CHALLENGES AND OPPORTUNITIES

Cybersecurity risk is an increasingly common business threat and can pose immense challenges to companies. Over the years, cyber-attacks have continued to proliferate, escalating in frequency, severity and impact. Organisations will face high monetary and reputational risks if there is no appropriate cybersecurity plan. As the utilities sector digitalises, it also becomes more vulnerable to cybersecurity threats, increasing its exposure to cyber-attacks.

### 5.3.2 OUR COMMITMENT

The Group seeks to protect its critical assets and data from cyber-attacks, and ensure that there are adequate and effective cybersecurity defences to protect corporate information assets and critical infrastructure. The Group also established an Information Security Policy, which defines and helps communicate the fundamental principles for information confidentiality, integrity and availability to be applied across the Group.

### 5.3.3 HOW WE WORK

#### 5.3.3.1 CYBERSECURITY MEASURES

We are committed to the protection of our people, assets, reputation and brand through securely enabled operations.

UKPN conducts vulnerability scanning on core systems including the Smart Meter system. The vulnerability scans include simulated hacker attacks and the vulnerability management is subject to a weekly review meeting. On the other hand, the Information Security Management System for the Smart Meter system is aligned to ISO27001 as part of the Smart Energy Code (a multi-party agreement which defines the rights and obligations for smart metering) and is managed by the Security Sub-Committee (SSC) which appoint an external auditor for an annual audit.

The Cyber Security Operations team of UKPN monitors the Security Operations Centre and Security Information Event Management 24/7 throughout the year for alerts that indicate areas for further investigation. This team also has the governance duty for identity and access management, vulnerability management, contractual services (alongside the legal team) and awareness management.

Power Assets and HK Electric are implementing various cybersecurity protection measures, including Next-Generation Firewall and Intrusion Prevention System, Advanced Persistent Threat (APT) Protection Solutions, Mail Gateway, Secure Web Proxy, and Anti-malware Systems, to safeguard their information assets against unauthorised access and malicious attacks.

#### 5.3.3.2 EMPLOYEE TRAINING

UKPN operates a company-wide “Security Matters” branded campaign to communicate awareness materials across multiple channels, such as intranet, email, Yammer, digital noticeboards and user briefings, covering the cyber, physical and personnel aspects. An online training Cyber Security course is mandatory for all employees and this was updated in March 2020 to improve course format, enhance contents, increase the scope, incorporate feedback and include lessons learned within UKPN and via the media. For field staff, awareness materials based on the online course are available via email and paper. For NGN, cybersecurity e-learning is in place and issued to colleagues on a regular basis.

SA Power Networks holds vocational educational programmes in cybersecurity. Trainings were delivered by registered training organisations and nationally accredited qualifications were credited. As for WWU, colleagues are assigned mandatory e-learning modules on cybersecurity when they join the company.

## 5.4 SUPPLY CHAIN MANAGEMENT

### 5.4.1 CHALLENGES AND OPPORTUNITIES

As a global investor in energy and utility-related businesses with over 30,000 suppliers, the Group is aware of the broader influence it has and can use its purchasing power to encourage suppliers to make their operations more sustainable.

We require all businesses in our supply chain to share our commitment in terms of human rights, working conditions, occupational health and safety, non-discrimination, business ethics and environmental stewardship.

During the pandemic, effective collaboration with all stakeholders in the supply chain is critical to our growth and success. The supply chain disruption resulting from COVID-19 poses tremendous pressure on our operational efficiency across all functions of the supply chain management. In addition, with the trend of forming more business collaborations and partnerships globally, the ways of working and operation are required to change in response to the dynamic industry environment.

### 5.4.2 OUR COMMITMENT

The Supplier Code of Conduct underpins our commitment, serves as a guideline for all our business partners and suppliers, and encourages compliance with items in the Supplier Code of Conduct so as to bring broader improvements in sustainability practices and performance for business partners and suppliers and the communities the Group serves.

It applies to all our business partners, and products and service providers (i.e. suppliers).

The content of this Supplier Code of Conduct has been developed taking into consideration a number of international charters and conventions such as the United Nation's Declaration on Human Rights and the International Labour Organisation Core Conventions.

Several other policies also support our commitment to promote supply chain sustainability, including:

- Human Rights Policy – Highlights the respect for human rights as a fundamental value of the Group, and explains our expectation on business partners and suppliers to uphold the principles in our Human Rights Policy and adopt similar policies within their own businesses.
- Modern Slavery and Human Trafficking Statement – Reiterates the Group's zero-tolerance against modern slavery and its commitment to preventing modern slavery and human trafficking. It is expected that business partners and suppliers share the same value with the Group, complying with the relevant laws, regulations and reporting requirements. Transparency in business partners' and suppliers' approaches to tackling modern slavery is also expected to be maintained in all our business relationships.
- Environmental Policy – States the Group's awareness of the direct and indirect impact arising from its ability to influence environmental performance within its value chain and in its investments, and how it endeavours to influence suppliers by raising awareness of environmental issues, eco-friendly practices and professional environmental considerations.

### 5.4.3 HOW WE WORK

#### 5.4.3.1 SUSTAINABLE PROCUREMENT

The Group is well aware of the environmental and social impacts that may ensue along the supply chain, and is committed to minimising such risks in the collaborations with suppliers. ESG-related factors form an important part of the assessment process and have a due weighting in our consideration of potential suppliers and contractors.

The evaluation of a supplier's environmental capabilities and systems is an important consideration in the selection process for Wellington Electricity. Wellington Electricity evaluates and verifies the supplier's environmental management system or plan; establishes performance/measurement criteria; determines the supplier's understanding of environmental responsibilities; and reviews how the supplier will manage environmental issues associated with the contract work and services.

In addition, environmental requirements including the right to conduct audits and/or inspections shall be defined in all Competitive Bidding documents.

UKPN assesses its suppliers through a pre-qualification platform, Achilles Utilities Vendor Database ("UVDB") and Verify Audits, before allowing them to work for the business for identified High Risk work. As an industry-recognised risk management framework, Achilles UVDB can provide a fair, open and transparent means of supplier selection for potential tender opportunities. New suppliers are granted access to the questionnaire and audit protocols in the public domain of Achilles UVDB and Verify Audits. This pre-qualification database allows UKPN to comply with the Utilities Contract Regulations 2016 in the awarding of contracts, based on the Treaty Principles of Equal Treatment – Transparency, Non-discrimination, Mutual Recognition and Proportionality.

At AVR, the importance of safety requirements and compliance is always emphasised in contracts with suppliers and included in its "contractor manual" and part of supplier review procedures.

All of AGN, DBP and Multinet Gas's contracts and purchase order terms and conditions with suppliers include clauses on NGERS (National Greenhouse and Energy Reporting), labour practices and health and safety performance.

ista's Code of Conduct and the procurement policy define standards and guidelines for transparent, fair and efficient supplier selection by its employees as well as for quality-focused collaboration. All the suppliers undertake to comply with ista's Supplier Code and to enter into corresponding agreements with their suppliers.

#### 5.4.3.2 ON-GOING MANAGEMENT

Regular monitoring, audits and evaluations are carried out to assess the performance of our suppliers.

All suppliers for AGN, DBP and Multinet Gas are audited for health, safety and environment ("HSE") performance on an annual basis. In particular, all DBP contractors subscribed to ISNetwork (External Contract Information Manager) were audited on their HSE performance on a quarterly basis to ensure all suppliers under contract meet the requirements for HSE performance.

Regular audits were conducted for ista to check whether ista's Supplier Code is being observed. ista's Supplier Code contains the minimum requirements for social, environmental and governance standards. It is based on the principles of the Organisation for Economic Cooperation and Development ("OECD"), the core conventions of the International Labour Organization ("ILO"), the principles of the UN Global Compact and the requirements of the UK Modern Slavery Act.

# 5.4 SUPPLY CHAIN MANAGEMENT

## 5.4.3 HOW WE WORK (CONT'D)

### 5.4.3.2 ON-GOING MANAGEMENT (CONT'D)

Effective contractor management is vital for EnviroNZ to ensure that contractors working on project sites meet the environmental and social requirements. To monitor contractors' compliance, EnviroNZ evaluates all contractors based on activity tasks and risks through the Contractor Management Procedure. EnviroNZ is assessing their Health, Safety, Environment and Quality compliance via the Impac Prequal system for certain high-risk contracting companies. Among approximately 500 contractors, approximately 150 are qualified or are progressing through the Prequal process. All contracting companies and contractor employees are managed into compliance via the system.

### 5.4.3.3 COMMUNICATION

In addition to enforcing our Supplier Code of Conduct, we actively communicate with our suppliers to help improve their sustainability performance.

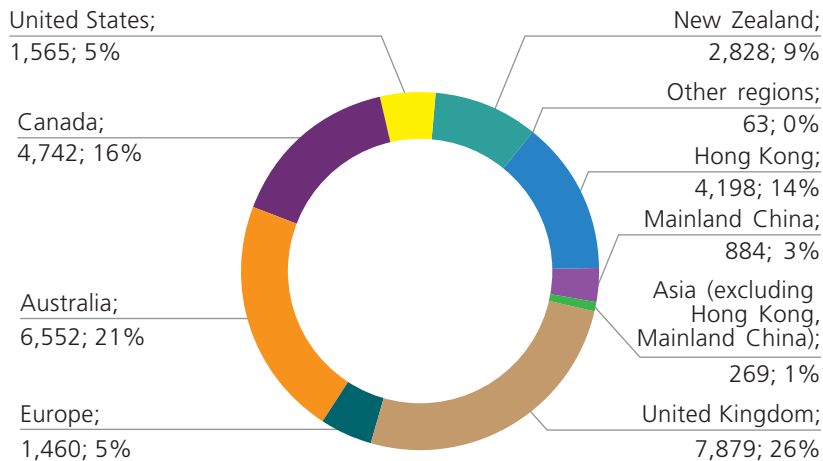
To address the environmental issues in the supply chain, Northumbrian Water engaged with industry peers such as Anglian Water to host the inaugural

Innovate East festival in Ipswich over three days in September 2019. Almost 2,000 people brought their knowledge, energy and brains to bear on some big challenges facing the water industry at large. Participants from more than 250 organisations came together to embrace innovation and use their collective power to tackle problems in leakage, social purpose, the environment and digital twins. Northumbrian Water also combined forces with Anglian Water to invest GBP100,000 in ideas with the potential to take the industry forward.



**Northumbrian Water's Innovate East festival.**

### Number of Suppliers by Geographical Region



## 5.5 COMMUNITY ENGAGEMENT

### 5.5.1 CHALLENGES AND OPPORTUNITIES

As a utility services provider, we are in a good position to deliver added value to local communities. It is important for us as a corporate citizen to recognise the different views and experiences of others, and balance the conflicting stakeholder demands. Corporates also need to be able to measure the effectiveness of engagement and investment programmes in order to provide insights for more targeted community initiatives in the future.

### 5.5.2 OUR COMMITMENT

We are committed to respecting the rights of communities and contributing to their economic and social progress by interfacing with a multitude of stakeholders on a regular basis. Our Corporate Social Responsibility Policy guides our interactions with the communities in which we operate. From development through operations, we engage local communities to share information and ensure our projects have a positive impact on the community.

### 5.5.3 HOW WE WORK

#### 5.5.3.1 BETTER ACCESS TO AFFORDABLE ENERGY

Providing affordable electricity for customers is critical to supporting local economies. As the country's largest electricity distributor, UKPN already serves at least 1.9 million people living in vulnerable circumstances by providing additional support and advice on energy matters via the Priority Services Register. To further support the local economy, Power Partners has provided GBP300,000 worth of annual grants, via a new community investment fund since 2018, to a total



**UKPN offers fuel poverty advice to the deaf community.**

of 30 community organisations across the East, South East of England and London to make the electricity affordable and combat fuel poverty. This year, UKPN also remodelled the Power Partners fuel poverty programme to specifically support those most affected by the pandemic.

## 5.5 COMMUNITY ENGAGEMENT



*WWU's engineer working with a vulnerable customer.*

### 5.5.3 HOW WE WORK (CONT'D)

#### 5.5.3.1 BETTER ACCESS TO AFFORDABLE ENERGY (CONT'D)

In 2020 WWU has connected 1,066 properties under its Fuel Poor Network Extension Scheme and has funded a total of 11,700 connections towards an eight-year output target of 12,590. WWU continued to provide additional assistance to the most vulnerable customers within its geographical coverage through its Social Obligations Steering Group. Initiatives that have flowed from this work include increasing the number of partnerships with organisations to promote the support measures WWU offers its customers. For example, the Healthy Homes Healthy People project with Warm Wales has saved 737 homes over GBP947,000 in 2020 through increasing household income by claiming the correct benefits, addressing energy and water debt, tariffs and energy efficiency measures and advice; and installed 57 locking cooker valves in 2020 allowing people to cook safely under the supervision of carers and families.

Besides, HK Electric has developed programmes and tools to educate customers about energy efficiency and help them reduce electricity use, and offered assistance programmes to under-privileged customers in line with Goal 7 (Affordable and Clean Energy) and Goal 13 (Climate Action) of the United Nations' Sustainable Development Goals.

By 2023, HK Electric will:

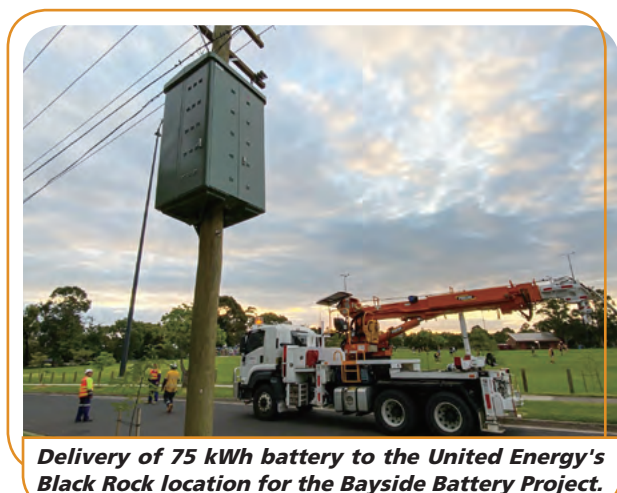
- subsidise 4,000 under-privileged households for adopting energy-efficient electrical appliances;
- complete 1,000 free energy audits for the non-residential customers and subsidise 500 buildings for implementing energy efficiency enhancement projects; and
- organise 1,000 educational and promotional activities on combating climate change and adopting low-carbon lifestyles.

VPN has provided financial assistance to Victorian households and small businesses impacted by the COVID-19 environment. Users in all distribution networks including CitiPower and Powercor have been offered a relief package since April 2020, in which eligible customers could defer or in some customers have rebated their electricity network charges. The package evolved and adapted through 2020 and was completed in January 2021.

#### 5.5.3.2 COMMUNITY CONSULTATION

We take community concerns about our activities seriously. To better respond to the demands of the communities we serve, we regularly engage with stakeholders to listen to their needs and obtain knowledge of the specific local situations. Our integrated approach ensures that we can identify target situations and always consider the multiplicity of the economic, social and cultural situations in which we operate.

United Energy is implementing the Bayside Battery Project to install two pole-mounted batteries for the local community to share where each battery is expected to support up to 150 homes and businesses with stored energy. A highly personalised approach was taken to liaise with community members regarding this installation and the project team was very supportive of stakeholder needs to ensure visual amenity concerns are considered in the placement of the batteries. A formal test of the noise and electromagnetic fields from



**Delivery of 75 kWh battery to the United Energy's Black Rock location for the Bayside Battery Project.**

the batteries was transparently undertaken and the results were communicated to residents. This initiative contributes to the Bayside Council carbon emissions target and has been the forerunner to a broader scale of the project.

Working alongside the ongoing and extensive programme of engagement with both stakeholders and customers, WWU also has a Customer Engagement Group ("CEG") that robustly challenges its plans for future investment, customer services and social obligations, environmental performance,

etc. Formed by nine members representing different customers and stakeholders, with specialisms in different areas, the CEG is independent of both WWU and its regulator. The CEG's views will help the regulator to understand how WWU's business plans reflect and meet the needs of different stakeholders.

VPN implemented the Brunswick project to offload an aging Zone Substation and increase the capacity of another which required significant work within 2.4 km of suburban streets. The stakeholder engagement plan took into consideration research within the community which identified concerns with previous electricity infrastructure developments. In response, and in light of the COVID-19 lockdown conditions, VPN established an innovative community-based social media site (Facebook) to conduct two-way consultation and engagement. This was used to provide project updates, answer questions and promote videos of local small businesses disrupted by the works. As a result, the project has been undertaken to schedule, with substantial positive feedback received and no complaints.

As a utility services provider serving a total of over 40 million customers worldwide, our operating companies around the world have various channels available for their customers through which to make a complaint or request information. We constantly monitor the feedback received, in order to understand the customer's perception and any ongoing critical issues, and to implement the appropriate corrective actions. During the year, we have received 176,079 product and service related complaints<sup>1</sup>.

<sup>1</sup> Minor complaints from ista are the source of more than 73% of the overall product and service-related complaints.

## 5.5 COMMUNITY ENGAGEMENT

### 5.5.3 HOW WE WORK (CONT'D)

#### 5.5.3.3 COMMUNITY INVESTMENT

The Group also continues to promote economic and social growth of the local communities in which it operates, confirming its specific commitment as specified in the Corporate Social Responsibility Policy.

##### WWU

- Allocated GBP55,000 to charities and other groups under its Safe and Warm fund as a response to the challenges of COVID-19.
- Helped charitable, environmental and medical organisations support vulnerable customers.
- Committed GBP50,000 to help charities and local organisations recover from the COVID-19 pandemic.

##### EDL

- Donated AUD250,000 to support bushfire relief efforts, AUD10,000 for a local council dealing with the impacts of COVID-19, AUD17,844 towards the Cullerin Range Wind Farm Community Fund, and AUD107,683 towards charities supported by EDL employees.

##### Northumbrian Water

- Continued the Innovate UK-funded Knowledge Transfer Partnership with Durham University, working with the Environment Agency and Durham County Council to work with affected people to increase flood resilience in their communities and to support Small and Medium Enterprises.

- The project has supported regional growth through the European Regional Development Fund (ERDF) funded North East Water Hub, delivering over GBP1.7 million of economic value to the North East.

##### NGN

Donated GBP50,000 to local communities to deliver schemes such as affordable warmth that help vulnerable residents in the North of England.

##### AGIG

Expanded the Community Partnership Program and increased funding nationally to AUD500,000 per annum to support community and not-for-profit organisations in the regions where we operate. Long-term flagship partnerships included Foodbank (food relief), Angel Flight (transport to medical appointments for regional communities), Clontarf Foundation (supporting young indigenous men) and Landcare (environmental protection).



**United Energy's employees contributed to the community during a time of need.**



#### 5.5.3.4 ENCOURAGING EMPLOYEE VOLUNTEERING

The Group encourages its employees to play a positive and active role in the communities where they live and work.

To encourage employees to participate in community affairs, EDL offers two paid days every year for volunteer work, and provides matching fundraising for approved charities and donation programmes. AGIG also approves one-day leave per year for all employees to participate in the Community Partnership Programme.

UKPN's employees have two paid days to volunteer in their communities which they can spend on a new scheme to Donate by Dialling, ringing people who are isolated during the lockdown.



**AGN's employee volunteered in a community partnership programme, helping with food packing in a foodbank.**

## 5.6

# REGULATORY COMPLIANCE

During the reporting period, we were not aware of any incidents of non-compliance with laws and regulations that have a significant impact on the Group relating to (i) employment and labour practices, occupational health and safety;

(ii) health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress; and (iii) nor did we identify any incidents relating to the use of child or forced labour.

# APPENDIX



*DBP's gas compress station.*

# 6.1 ENVIRONMENTAL PERFORMANCE INDICATORS

Environmental KPIs <sup>1</sup>	Unit	2019	2020
<b>GHG emissions</b>			
<b>Total GHG emissions<sup>2</sup></b>	tonne CO <sub>2</sub> e	10,313,728	9,923,680
Scope 1 emissions		8,486,783	8,009,254
Scope 2 emissions		1,826,945	1,914,426 <sup>3</sup>
<b>Total GHG emissions intensity</b>	tonne CO <sub>2</sub> e/ HKD million revenue	227	206
Scope 1 GHG emissions intensity		187	166
Scope 2 GHG emissions intensity		40	40
<b>Use of energy</b>			
<b>Total energy consumption</b>	'000 kWh	32,221,735	31,416,990
Direct energy consumption		28,457,166	27,472,160
Gasoline/Petrol		32,505	30,250
Diesel		542,264	537,080
Natural gas		10,525,403	10,840,590
Liquified Petroleum Gases (LPG) <sup>4</sup>		4,809	6,882
Other fuels <sup>5</sup>		17,352,185	16,057,358
Indirect energy consumption		3,764,569	3,944,830 <sup>3</sup>
Electricity		3,764,569	3,944,830
<b>Total energy consumption intensity</b>	kWh/HKD revenue	709.343	650.826
Direct energy consumption intensity		626.469	569.106
Indirect energy consumption intensity		82.875	81.720

1 Environmental KPIs in this data table are calculated using the equity method. We only include data in this report for 2020 that were confirmed by the end of March 2021. If significant data changes occur after preparation of this report, they will be updated in the following year's publication.

2 GHG emissions comprise carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride. The data are calculated using local/industry-specific methodology where applicable under regulation. Otherwise, the Scope 1 emissions are calculated using the latest available emission factors in line with the Greenhouse Gas Protocol, IEA's Energy Statistics Manual, US EPA's Emission Factors for Greenhouse Gas Inventories and Environmental Protection Department and the Electrical and Mechanical Services Department's Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong (2010 Edition). Scope 2 emissions includes the emissions associated with electricity purchased and are calculated based on the IEA's latest available emission factors.

3 Scope 2 emissions include the emissions from purchased electricity of our businesses for their own use. It also includes the emissions from energy losses from distribution grid and the electricity system transmission grid ("network losses") for our electricity distribution companies, including UKPN, SA Power Networks, VPN, Wellington Electricity and United Energy. Network losses are calculated as the difference between the electricity entering the network, and electricity which is used by customers, for which the data are received from the industry taken from meter readings. Due to COVID-19, there was a greater level of estimation by the industry (due to lack of actual meter readings) in the calculation of network losses in 2020, and this led to a slight increase in the assumed network losses, purchased electricity and Scope 2 emissions. It is expected that the figures will be fine-tuned when the meter readings are updated.

4 The term is revised to better clarify the fuel used. "Gas (exclude town gas and natural gas)" was the term used previously.

5 Other fuels include Lignite, residual fuel oil, industrial waste and biomass (e.g. landfill gas, sludge gas, etc.).

Environmental KPIs <sup>1</sup>	Unit	2019	2020
<b>Air emissions<sup>6</sup></b>			
NOx emissions	tonnes	8,027	8,558
SOx emissions		636	726
Particulate matter emissions		233	306
<b>Use of water</b>			
Water consumption	'000 m <sup>3</sup>	35,665	43,920 <sup>7</sup>
Water consumption intensity	m <sup>3</sup> / HKD million revenue	785	910
<b>Waste production</b>			
Total hazardous waste produced	tonnes	33,009 <sup>8</sup>	47,655 <sup>9</sup>
Total non-hazardous waste produced		508,859	304,074 <sup>10</sup>
<b>Packaging material</b>			
<b>Total packaging material used for finished products</b>	tonnes	3,545	2,943
Plastic		–	3
Paper		3,545	2,940

- 6 The total emissions of NOx, SOx and PM increased by 9%, 38% and 30% compared with 2019. This is mainly due to the inclusion of EDL's new plant in the USA (acquired late in 2019) in the data boundary. Hence the data is not directly comparable with prior years.
- 7 Water consumption from Northumbrian Water, a water supply, sewerage and wastewater company in the UK, is the source of more than 87% of the total water consumption. The Group's water consumption were increased by 21% year-on-year largely due to the increase in the Group's ownership of Northumbrian Water.
- 8 The 2019 data figures have been restated in line with re-categorisation of the hazardous waste across different operating companies. Moving forward, we expect that these numbers will continue to evolve as data sources improve.
- 9 Among the Group's sources of hazardous waste produced, EnviroNZ, a waste management and recycling company in New Zealand accounted for 55% of the total, followed by AVR, the Netherlands' leading energy-from-waste company (40%). In 2020, the overall hazardous waste generation increased by 32% compared to 2019. This is mainly due to the increase in the Group's ownership of AVR and the increased amount of processed hazardous waste sent to the landfill by EnviroNZ.
- 10 The total amount of non-hazardous waste decreased by 43% compared with 2019. This is mainly due to the significant drop in the consumption of coal and limestone in 2020 as a result of the increase in gas generation to 50% of HK Electric's fuel mix, that led to a substantial reduction in the respective by-products, namely ash and gypsum produced from coal fired generating units and associated Flue Gas Desulphurisation (FGD) plants.

## 6.2 ESG GUIDE

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Mandatory Disclosure Requirements		Section	Remarks
Governance Structure	<p>A statement from the board containing the following elements:</p> <ul style="list-style-type: none"> <li>(i) a disclosure of the board’s oversight of ESG issues;</li> <li>(ii) the board’s ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer’s businesses); and</li> <li>(iii) how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer’s businesses.</li> </ul>	2.1 2.2	
Reporting Principles – Materiality	<ul style="list-style-type: none"> <li>(i) the process to identify and the criteria for the selection of material ESG factors;</li> <li>(ii) if a stakeholder engagement is conducted, a description of significant stakeholders identified, and the process and results of the issuer’s stakeholder engagement.</li> </ul>	2.1.2 2.1.3 2.3	
Reporting Principles – Quantitative	Information on the standards, methodologies, assumptions and/or calculation tools used, and source of conversion factors used, for the reporting of emissions/energy consumption (where applicable).	2.3 6.1	
Reporting Principles – Consistency	The issuer should disclose in the ESG report any changes to the methods or KPIs used, or any other relevant factors affecting a meaningful comparison.	2.3 6.1	
Reporting Boundary	A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report.	2.3	

Subject Areas, Aspects, General Disclosures and KPIs		Section	Remarks
<b>A. Environmental</b>			
<b>Aspect A1: Emissions</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	4.1 4.2 4.3	<ul style="list-style-type: none"> <li>• Environmental Policy</li> <li>• Corporate Social Responsibility Policy</li> <li>• Supplier Code of Conduct</li> </ul>
KPI A1.1	The types of emissions and respective emission data.	4.1 6.1	
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity.	4.1 6.1	
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity.	6.1	
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity.	6.1	
KPI A1.5	Description of emission target(s) set and steps taken to achieve them.	4.1	
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	4.2	
<b>Aspect A2: Use of Resources</b>			
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	4.1 4.2	<ul style="list-style-type: none"> <li>• Corporate Social Responsibility Policy</li> <li>• Environmental Policy</li> <li>• Supplier Code of Conduct</li> </ul>
KPI A2.1	Direct and/or indirect energy consumption by type in total and intensity.	4.1 6.1	
KPI A2.2	Water consumption in total and intensity.	6.1	

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Subject Areas, Aspects, General Disclosures and KPIs		Section	Remarks
<b>Aspect A2: Use of Resources (Cont'd)</b>			
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	4.1	
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	4.2	
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	6.1	
<b>Aspect A3: The Environment and Natural Resources</b>			
General Disclosure	Policies on minimising the issuer's significant impacts on the environment and natural resources.	4.2	<ul style="list-style-type: none"> <li>• Environmental Policy</li> <li>• Supplier Code of Conduct</li> </ul>
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the action taken to manage them.	4.2	
<b>Aspect A4: Climate Change</b>			
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	4.1	<ul style="list-style-type: none"> <li>• Environmental Policy</li> </ul>
KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	4.1	
<b>B. Social</b>			
<b>Employment and Labour Practices</b>			
<b>Aspect B1: Employment</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	5.1 5.6	<ul style="list-style-type: none"> <li>• Employee Code of Conduct</li> </ul>

Subject Areas, Aspects, General Disclosures and KPIs		Section	Remarks
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	5.1	
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	5.1	
<b>Aspect B2: Health and Safety</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	5.2 5.6	<ul style="list-style-type: none"> <li>Health and Safety Policy</li> </ul>
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	5.2	
KPI B2.2	Lost days due to work injury.	5.2	
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	5.2	
<b>Aspect B3: Development and Training</b>			
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	5.1	
KPI B3.1	The percentage of employees trained by gender and employee category.	5.1	
KPI B3.2	The average training hours completed per employee by gender and employee category.	5.1	
<b>Aspect B4: Labour Standards</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	5.6	<ul style="list-style-type: none"> <li>Human Rights Policy</li> <li>Modern Slavery and Human Trafficking Statement</li> <li>Supplier Code of Conduct</li> </ul>
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	–	
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	–	



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Subject Areas, Aspects, General Disclosures and KPIs		Section	Remarks
<b>Operating Practices</b>			
<b>Aspect B5: Supply Chain Management</b>			
General Disclosure	Policies on managing environmental and social risks of the supply chain.	5.4	<ul style="list-style-type: none"> <li>Human Rights Policy</li> <li>Modern Slavery and Human Trafficking Statement</li> <li>Supplier Code of Conduct</li> </ul>
KPI B5.1	Number of suppliers by geographical region.	5.4	
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	5.4	<ul style="list-style-type: none"> <li>Policy on Appointment of Third Party Representatives</li> </ul>
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	5.4	
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	5.4	
<b>Aspect B6: Product Responsibility</b>			
General Disclosure	Information on: (a) Policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	5.5 5.6	<ul style="list-style-type: none"> <li>Employee Code of Conduct</li> </ul>
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	–	This indicator is not considered material to the Group hence such data are not disclosed.
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	5.5	

Subject Areas, Aspects, General Disclosures and KPIs		Section	Remarks
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	–	Our Employee Code of Conduct outlines our commitment to intellectual property rights protection.
KPI B6.4	Description of quality assurance process and recall procedures.	5.3	
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	–	<ul style="list-style-type: none"> <li>Information Security Policy</li> </ul>
<b>Aspect B7: Anti-corruption</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	3.2	<ul style="list-style-type: none"> <li>Employee Code of Conduct</li> <li>Anti-Fraud and Anti-Bribery Policy</li> <li>Policy on Appointment of Third Party Representatives</li> </ul> <p>No recorded cases of non-compliance with laws and regulations relating to anti-corruption and bribery during the reporting period.</p>
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	–	No such cases recorded during the reporting period.
KPI B7.2	Description of preventive measures and whistleblowing procedures, how they are implemented and monitored.	3.2	<ul style="list-style-type: none"> <li>Procedures for Reporting Possible Improprieties in Matters of Financial Reporting or Internal Control</li> </ul>
KPI B7.3	Description of anti-corruption training provided to directors and staff.	3.2	

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Subject Areas, Aspects, General Disclosures and KPIs		Section	Remarks
<b>Community</b>			
<b>Aspect B8: Community</b>			
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	5.5	• Corporate Social Responsibility Policy
KPI B8.1	Focus areas of contribution.	5.5	
KPI B8.2	Resources contributed to the focus area.	1.4 5.5	

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