



Power Assets Holdings Ltd.

電能實業有限公司

(Stock Code : 6)



Building Resilience for Sustainability

Sustainability Report **2023**



About Power Assets

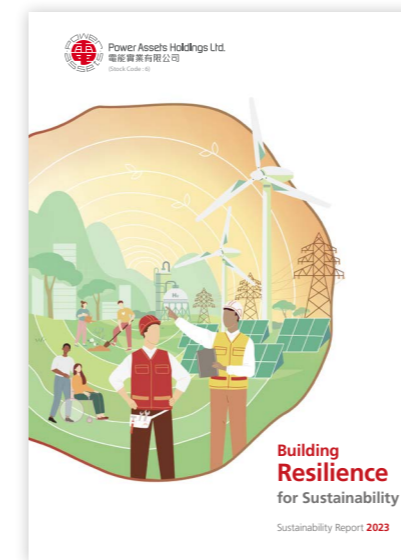
Power Assets Holdings Limited (“Power Assets” or the “Company”, together with its subsidiaries, the “Group”) is a global investor in energy and utility-related businesses with interests in the transmission of electricity, gas and oil, the distribution of electricity and gas, as well as the generation of energy from thermal, waste, and renewable sources.

From our origins in Hong Kong over a century ago, the Group now has a presence spanning four continents in nine different markets including the United Kingdom, Australia, New Zealand, Mainland China, Thailand, the Netherlands, Canada and the United States, bringing reliable, affordable energy to about 19.8 million homes and businesses. The bulk of our business derives from our interests in 503,100 km of power, gas and oil networks, supplemented by investments in around 9,700 MW of power generation, wind power, solar power and energy from waste facilities.

Our investments comprise primarily regulated energy infrastructures. In 2023, around 80% of our Group’s share of total fixed assets of joint ventures and associates (“the Assets”) comprise transmission and distribution of gas and electricity infrastructures. Power-generation assets account for around 11% of the Assets with coal-fired generating facilities having been reduced steadily over the years and currently down to less than 3% of the Assets. Revenue from thermal power generation accounts for not more than 30% of the total revenues from the Assets.

As we navigate the dynamic changes in the energy sector – driven by the urgent need to address climate change, the electrification of transport, and the shift towards low carbon energy sources – we remain steadfast in our commitment to sustainable growth. Our efforts are aligned with the objectives set at the 28th United Nations Climate Change Conference (“COP28”) and our mission to drive the zero-carbon transition across the communities we serve. This report offers an insight into our innovative strategies, significant progress in resilient operations amidst extreme weather events, and our proactive approach to decarbonisation and social responsibility, in particularly just transition. We are pleased to share with you our journey towards a more sustainable future, as we continue to adapt and thrive in a rapidly evolving energy landscape.

Listed on the Stock Exchange of Hong Kong as a constituent share of the Hang Seng Index, Power Assets has been a constituent of the Hang Seng Corporate Sustainability Index since 2010. We are also included in the Hang Seng ESG 50 index, HSI Low Carbon Index and Hang Seng Stock Connect Hydrogen Energy Index.



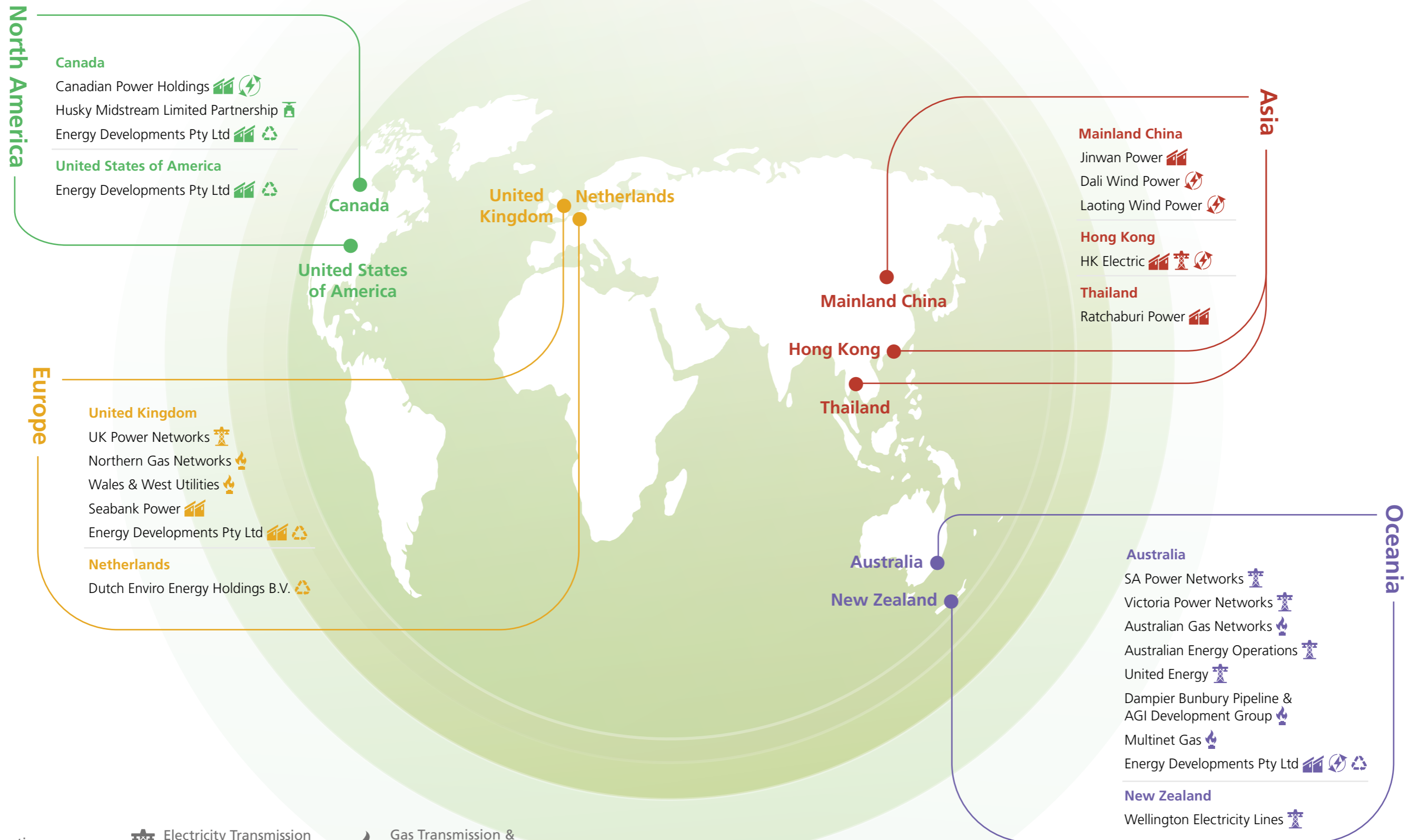
Building Resilience for Sustainability

The rings of a tree represent its age and size, and are universally revered as a symbol of long-term growth that enriches the ecosystem around it. The design of the sustainability report pays homage to this steady growth in harmony with the planet. It also represents the multi-layered efforts of the Power Assets Group and its businesses to protect the environment and build sustainable communities. Symbolic trees from various regions are scattered throughout the report to signify the global reach of our operating companies. We pay tribute to our most valuable resource – our employees – both on the cover and throughout the pages of this report.

Contents

Introduction	
2	Our Business Portfolio
6	Message from Chief Executive Officer
10	2023 Highlights
12	Sustainability and Resilience: Our Transition Plan
Governance	
20	Sustainability Governance
25	Approach to Sustainability
28	Stakeholder Engagement
30	Materiality Assessment
33	Contribution to UN SDGs and UNGC
41	Upholding Business Ethics and Integrity
Climate-related Financial Disclosures	
46	Reporting on TCFD
Environment	
64	Combating Climate Change and Reducing Carbon Footprint
92	Managing Environmental Impacts and Conserving Resources
Social	
113	Empowering Employees in the Workplace
134	Serving Our Customers with Excellence
143	Embedding Sustainability in Our Supply Chain
147	Fostering Community Involvement in the Energy Transition
Appendix	
154	About this Report
156	Environmental and Social Performance Indicators
163	Hong Kong Stock Exchange ESG Guide Content Index
170	TCFD Content Index
171	UNGC Content Index
173	Verification Statement
175	Abbreviations

Our Business Portfolio



Generation	Electricity Transmission & Distribution	Gas Transmission & Distribution
Energy-from-waste	Oil Pipelines & Storage Facilities	Renewables

Our Business Portfolio

Generation Capacity

Renewable Energy

210 MW

499 GWh

Energy-from-waste

669 MW

3,659 GWh

Oil-fired Standby gas turbine

555 MW

Gas-fired

5,262 MW

14,811 GWh

Coal-fired

2,950 MW

10,587 GWh

Diesel generators

62 MW

66 GWh

Power and Gas / Oil Network Length

388,200 km

Gas / Oil Pipeline

114,900 km

Employees

19,165

Customers

19,790,000



Canada

Canadian Power Holdings (Canadian Power)

Meridian

Installed Capacity 220 MW
Joined / Interest 2007 / 50%

TransAlta

Installed Capacity 1,064 MW
Joined / Interest 2007 / 25%

Okanagan Wind Power

Installed Capacity 30 MW
Joined / Interest 2021 / 50%

Husky Midstream Limited Partnership (HMLP)

Oil Pipeline Length 2,300 km
Oil Storage Capacity 5.9 million barrels
Pipeline Gathering System Capacity 409,000 barrels/day
Joined / Interest 2016 / 48.75%

Energy Developments Pty Ltd (EDL)

Installed Capacity 11 MW
Joined / Interest 2017 / 20%

United States of America

Energy Developments Pty Ltd (EDL)

Installed Capacity 149 MW
Joined / Interest 2017 / 20%

United Kingdom

UK Power Networks (UKPN)

Network Length 190,300 km
Customers 8,500,000
Joined / Interest 2010 / 40%

Northern Gas Networks (NGN)

Gas Pipeline Length 36,300 km
Customers 2,900,000
Joined / Interest 2005 / 41.29%

Wales & West Utilities (WWU)

Gas Pipeline Length 35,200 km
Customers 2,600,000
Joined / Interest 2012 / 36%

Seabank Power

Installed Capacity 1,148 MW
Joined / Interest 2010 / 25%

Energy Developments Pty Ltd (EDL)

Installed Capacity 45 MW
12 MW in Greece
Joined / Interest 2017 / 20%

Netherlands

Dutch Enviro Energy Holdings B.V.
(which owns AVR-Afvalverwerking B.V. (AVR))

Installed Capacity
Waste-to-Energy Units 140 MW*
Biomass-Fired Units 28 MW
Joined / Interest 2013 / 27%

* 117MW is temporarily out of service for repairs

Mainland China

Jinwan Power

Installed Capacity 1,200 MW
Joined / Interest 2009 / 45%

Dali Wind Power

Installed Capacity 48 MW
Joined / Interest 2007 / 45%

Laoing Wind Power

Installed Capacity 49.5 MW
Joined / Interest 2008 / 45%

Hong Kong

HK Electric

Installed Capacity 3,403 MW
Network Length 7,000 km
Customers 589,000
Established / Interest 1889 / 33.37%

Thailand

Ratchaburi Power Company (RPCL)

Installed Capacity 1,400 MW
Joined / Interest 2001 / 25%

Australia

SA Power Networks (SAPN)

Network Length 90,500 km
Customers 917,000
Joined / Interest 2000 / 27.93%

Victoria Power Networks (VPN)
(which owns Powercor and CitiPower)

Powercor

Network Length 77,400 km
Customers 921,000
Joined / Interest 2000 / 27.93%

CitiPower

Network Length 4,600 km
Customers 350,000
Joined / Interest 2002 / 27.93%

Australian Gas Networks (AGN)

(a member of Australian Gas Infrastructure Group (AGIG))
Gas Pipeline Length 27,000 km
Customers 1,399,000
Joined / Interest 2014 / 27.51%

Dampier Bunbury Pipeline and AGI Development Group

(collectively known as "DBP")
(a member of AGIG)
Gas Pipeline Length 4,100 km
Joined / Interest 2017 / 20%

Multinet Gas (MGN)

(a member of AGIG)
Gas Pipeline Length 10,000 km
Customers 723,000
Joined / Interest 2017 / 20%

United Energy

Network Length 13,500 km
Customers 716,000
Joined / Interest 2017 / 20%

Energy Developments Pty Ltd (EDL)

Installed Capacity 760 MW
Joined / Interest 2017 / 20%

Australian Energy Operations (AEO)

Network Length 71 km
Joined / Interest 2012 / 50%

New Zealand

Wellington Electricity Lines (Wellington Electricity)

Network Length 4,800 km
Customers 175,000
Joined / Interest 2008 / 50%

Message from Chief Executive Officer



The wide-ranging operations and over 19,000 employees of the Power Assets Group and its businesses have an essential role to play in ensuring that millions of customers across four continents have access to safe, reliable and affordable energy supply.

The energy industry is undergoing a fundamental change to address unpredictable effects of climate change, widespread electrification of transport, and the increased use of low-carbon energy sources for electricity and heating. In the face of this shift, responsible and sustainable growth is an integral part of our ethos and operating practices. Our mission is to enable the zero-carbon transition in every community we operate in while delivering long-term value for our stakeholders. The Group is committed to becoming net zero through energy transition and innovation, and has developed short- and medium-term targets up to 2035 aggregating the efforts across the business units to reduce the Group's operational greenhouse gas (GHG) emissions. At the same time we are firmly aligned with our pledge to deliver reliable energy supply and help build communities that are inclusive and safe for every member of society.

In this sustainability report, we share our goals, achievements, and strategy related to this effort. As we continue to constantly improve on our sustainability disclosure, this report has undergone external data assurance to ensure reporting is credible, transparent and accountable.

Assuring climate resilience

2023 faced numerous extreme weather events such as severe typhoons in Hong Kong and storms in the UK causing widespread flooding, while bushfires caused significant damage in regions of Canada and Australia. Our long-standing expertise, experienced and well-trained staff, and advanced grid technology enabled us to stay resilient, assuring speedy recovery from power outages.

According to the Intergovernmental Panel on Climate Change (IPCC), such extreme weather events are likely to happen with increasing frequency and scale. In anticipation, we take climate change into account in our resilience development, ensuring that we can safeguard energy provision by mitigating and adapting to their impacts.

Our businesses have responded by ramping up and focusing their action on climate-related resilience and adaptation. Many of our business units have climate resilient programmes which aim to understand, evaluate and mitigate climate risks. UKPN studied the thresholds of climate impacts on network capacity and used this analysis to develop flood protection programme and establish controls and mitigation measures. In response to increasing frequency of bushfires in South Australia and the push to ensure a safe and reliable electricity supply to its customer community, SAPN conducted inspections and pre-bush-fire patrols across all 49,800 km of the network, before bushfire season.

As we decarbonise our operations, we also make it a priority to provide customers with reliable energy. We strive to build climate resilience in view of the changing operating environment. We regularly review our emergency response plans, evaluate their effectiveness and identify areas of improvement through internal and external efforts to prepare for climate adaptation as well as to build climate resilience in the short to long terms. We believe that maintaining continuous exploration and leveraging the opportunities provided by the low-carbon transition will be important for reinforcing our resilience.

In the meantime, our gas distribution companies in the UK and Australia are leading the industry in catalysing the development of a green gas economy and preparing to capture potential business opportunities from hydrogen and biogas. In July 2023, AGIG unveiled Australia's first 100% hydrogen-powered home, providing a window into a future low-carbon energy solution in South Australia. NGN also secured funding from the government to explore the role of hydrogen in the net zero transition.

To more effectively communicate climate-related risks and opportunities and associated impacts through the existing disclosure, we embarked on a Task Force on Climate-Related Financial Disclosures (TCFD) exercise that leveraged scenario analysis to identify, prioritise and assess the potential implications of climate-related risks and opportunities from a range of plausible scenarios over a time horizon up to 2050. The analysis evaluated the future threats imposed by the possible physical and transition risks. The Group will make every effort to address the potential impacts and identify opportunities made possible by new technologies, products and services to enhance our business resilience.

The Group manages our Environmental, Social and Governance (ESG) performance with transparency and accountability, sharing progress, lessons learned, and best practice with the industry and wider community. All our operating companies are already measuring and reporting on their baseline carbon emissions and implementing plans to reduce their emissions year-on-year.

The Bauhinia, known for its remarkable adaptability to the environment, represents resilience and is Hong Kong's floral emblem.

Strengthening business sustainability

The Group has adopted the United Nations' Sustainable Development Goals (SDGs) 7, 8, 9, 12, and 13, which are most relevant to the energy sector. In 2023, we aligned with two new cross-sector goals that underpin holistic sustainable development, namely SDG 5 (Gender Equality) and SDG 11 (Sustainable Cities and Communities). We have set up a comprehensive ESG governance framework that operates at the Group as well as business levels to ensure that our ESG strategies and SDG targets are reviewed and aligned on an ongoing basis.

In 2023, we continued to lead the industry to move forward in the decarbonisation journey. UKPN's transition to a Distribution System Operator (DSO) from a Distribution Network Operator (DNO) ensures flexibility, performance and capacity of electricity to deliver the network ready for the future. In Hong Kong, HK Electric jointly with another power company, commissioned the city's first offshore liquefied natural gas terminal using Floating Storage and Regasification Unit (FSRU) Technology to accommodate the increase in gas-fired generation as we progressively retire our coal-fired units.

The UK and Australia are signatories to the Global Methane Pledge, committed to contributing to a collective effort to reduce global methane emissions by at least 30% from 2020 levels by 2030, which could eliminate over 0.2°C warming by 2050. Initiatives include minimising emissions from the gas network through proactive maintenance and generation of electricity using captured methane from wasted coal mine gas and landfill gas in Australia, the UK and the US. We also explored several carbon reduction strategies which play an important role alongside renewables. Our business in the US upgraded an existing landfill-gas-to-energy power plant to a renewable natural gas (RNG) facility in 2023 and expect to reduce emissions and increase the benefits of biogas across North America.

Social resilience and caring for people

Unlocking long-term economic and social value is the focus of our ESG journey and we believe that through targeted efforts to achieve social impact, we can create real value in the communities that we serve.

Social risks are complex and we have in place a range of strategies to address them. These include multifaceted social engagement initiatives, such as outreach and training programmes, to strengthen the social readiness of our businesses while supporting all our stakeholder groups.

People are essential to the achievement of sustainable success in any area. To this end, we are rolling out a range of training programmes to ensure that all our employees understand our ESG priorities and have the support needed to implement these alongside our transition plan.

Power Assets holds equal opportunity for all as a core value. In keeping with this principle, we are now a signatory to the Racial Diversity And Inclusion Charter For Employers and have adopted its guidelines and best practices to encourage and promote racial diversity and inclusion in the workplace.

Our industry is changing rapidly as we evolve to meet people's energy needs with new solutions. We follow a "Just Transition" approach to decarbonisation – respecting human rights while promoting sustainable development, the eradication of poverty, and the creation of decent work and quality jobs. We are equipping our people in the skills needed to work on emerging areas like renewables, hydrogen blending, and intelligent grids. Through social dialogue and ongoing engagement with employees and workers, we ensure that their needs and preferences are incorporated into all our activities.

Gender equality forms an important part of the "Just Transition" approach and our visions align with the Gender-Responsive Just Transitions & Climate Action Partnership launched at COP28 in early December 2023. We aspire to recruit and support women of all ethnic backgrounds in engineering and support the recruitment of more female engineers to better address gender balance and develop an inclusive and diverse workforce.

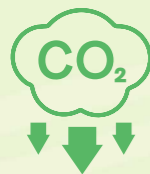
Care for underprivileged communities is close to our hearts. In Hong Kong, the CAREnJOY programme works with NGOs to support elderly people living alone. In Australia, our business units have joined the Reconciliation Action Plans ("RAP") programme to promote equity and better relationships with First Nations Stakeholders, including providing employment opportunities and assisting with connections.


Decarbonisation is a long and challenging journey but it is an essential one. I would like to thank the Board, our shareholders, employees, customers and all our other stakeholders who have always supported our aspirations and efforts. We remain committed to evolving our portfolio and services to make this a green and healthy planet for future generations.


Tsai Chao Chung, Charles
Chief Executive Officer and
Chair of Sustainability Committee
Hong Kong, March 2024

2023 Highlights

Environment

 **1.7% reduction** in Scope 1 and 2 emissions compared to 2022

 **23% reduction** of installed coal-fired generation capacity of our total generation portfolio compared to 2016

 **1.0% and 11.5%** reduction in Nitrogen Oxides (NOx) emissions and Sulfur Oxides (SOx) emissions respectively compared to 2022


 **Over 78%** of the Group's attributable revenue were covered by ISO 14001 or other EMS certificates

Social

 **48.4** training hours per employee

 **97%** of our full-time employees received training


 **83%** of employees covered by ISO 45001 HEALTH & SAFETY

 Joined the **Racial Diversity and Inclusion Charter for Employers** implemented by the Equal Opportunities Commission

Governance



Increased from five to seven the number of SDGs that are most relevant to our sustainability strategy through the adoption of **two new cross-sector goals** – SDG 5 (Gender Equality) and SDG 11 (Sustainable Cities and Communities)

 Published our first **TCFD-aligned disclosures**

 Achieved an increase of **12.2%** of employee received training on anti-corruptive/ethics and integrity compared to 2022

Sustainability and Resilience: Our Transition Plan

The Group keeps pace with international trends concerning climate action, acknowledging the intensified efforts to address GHG emissions and their impact. The most recent COP28 marked a historic consensus, stressing the importance of enacting rapid, substantial, and persistent reductions in global GHG emissions. The COP28's outcome has been heralded as the beginning of the

end of the fossil fuel era, with a call for accelerating efforts towards the phase-down of unabated coal-fired power generation, phasing out inefficient fossil fuel subsidies, and implementing other measures that drive the transition away from fossil fuels in energy systems, in a just, orderly and equitable manner.

The Group is in full support of these aims and is diligently pursuing initiatives across its operations to significantly reduce its carbon emissions. In alignment with these global commitments, our strategy remains steadfast on achieving a 67% reduction in our Scope 1 and 2 GHG emissions by 2035, taking 2020 as our baseline year, and

ultimately advancing towards net zero emissions by 2050. We are focused decarbonising our energy generation, modernising infrastructure with innovative technology, embracing hydrogen use in gas networks, and guiding our customers towards greater energy efficiency.

Our Climate Action Plan



Short-term Priorities

Reduce carbon footprint through modernisation, electrification and renewable energy

- HK Electric**
Expect to raise gas-fired generation to around 70% in 2024 and explore ways to adopt more renewables in operation
- Jinwan Power**
Improve coal-fired units by 2025 to reduce fuel consumption and enhance cycle efficiency
- NGN**
Reduce Scope 1 and 2 GHG emissions by 31% (as compared with 2018) and at least 50% of their commercial vehicle fleet being ultra-low emission or hybrid by 2026



Medium-term Actions

Accelerate decarbonisation through phase out of coal-fired generation and green energy expansion

- HK Electric**
Phase out coal-fired generation and achieve Science-based Target (SBT) of reducing Scope 1 GHG emission by 68.4% by 2035 (as compared with 2019)
- Jinwan Power**
Expiry of Jinwan JV arrangement in 2035
- RPCL**
Expiry of Power Purchase Agreement by 2033
- UKPN**
Reduce full carbon footprint by 25% by 2028 from a 2018/19 baseline
- SAPN**
Reduce Scope 1 and 2 GHG emissions by 50% by 2030 (compared with a base year of 2022)
- VPN and United Energy**
30% reduction of both Scope 1 and 2 GHG emissions (including distribution line losses) by 2030 from a 2019 baseline
- AGIG**
Reduce 30% of Scope 1 and 2 GHG emissions by 2030 compared to 2020
- EDL**
50% reduction in GHG emissions intensity by 2035 (as compared with 2021)

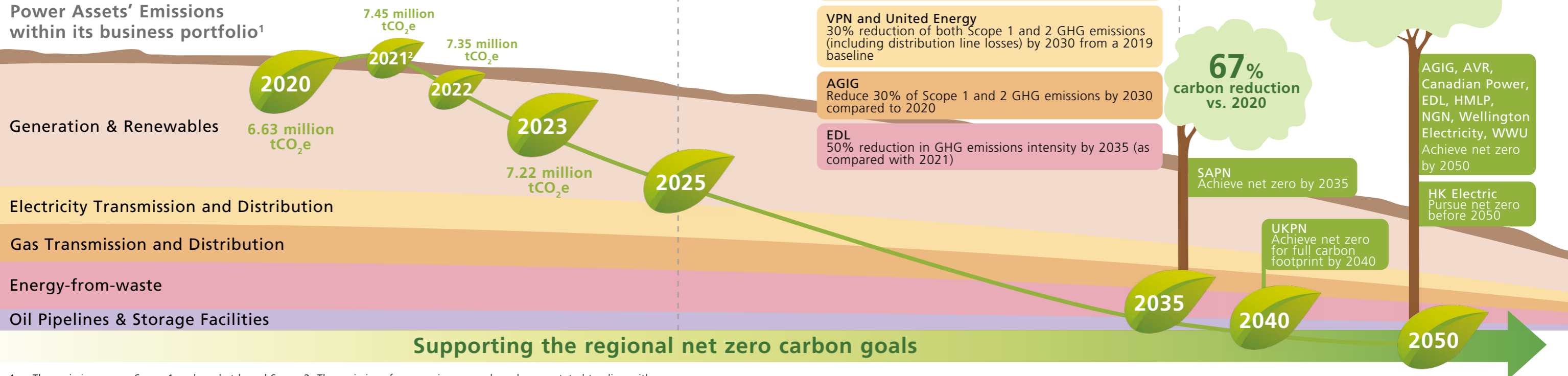


Long-term Commitments

Progress towards net zero operations with more renewable energy and green hydrogen in long term

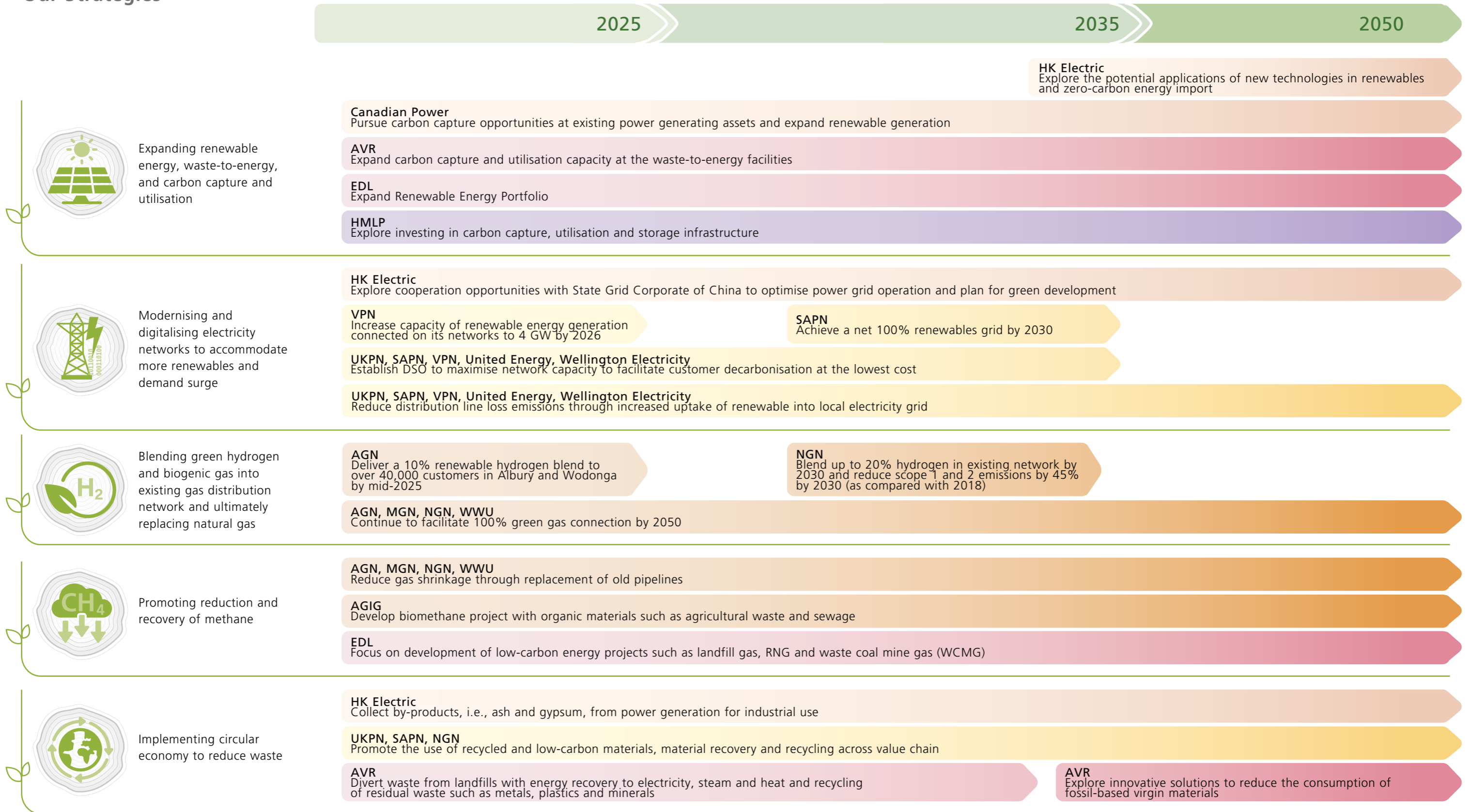
- Corporate long-term net zero commitment
- BU-level long-term net zero commitment

Power Assets' Emissions within its business portfolio¹



¹ The emissions cover Scope 1 and market-based Scope 2. The emissions from previous years have been restated to align with the calculation approach adopted across reporting years.
² Comparing with 2020, increase in 2021 emissions was mainly attributed to the resumed to normal operation of Jinwan Power after COVID19 lockdown.

Our Strategies



Sustainable Value Creation

As the world advances towards a zero-carbon economy, the scale of sustainable investment required in sustainable infrastructure and innovative technologies is immense. Our extensive experience in sustainable investment and operations positions us to realise value and capitalise on opportunities during this pivotal time. At the core of our strategy for sustainable value creation, the Group's management operates with a deep commitment to ESG principles, integrating them into the heart of our operations and investment decisions. We recognise that ESG performance is not merely to

satisfy compliance measures but remains a critical component of long-term value creation.

When evaluating potential investments, the Group rigorously assesses a broad spectrum of criteria encompassing both financial performance and non-financial factors, with a key focus on ESG impact. This includes examining legal compliance, labour relations, environmental and social footprints, supply chain integrity, and management's overall capability.

In response to the urgent challenges posed by climate change, green investments are central to our strategic and economic planning. Across our business units, we are channelling substantial capital and operating expenditures into projects that promise not only environmental benefits but

also long-term viability and efficiency. In 2023, over HK\$8.2 billion was allocated to comprehensive sustainability programmes and initiatives focusing on green and transition technology, sustainable transport, asset modernisation and integrity, and integrated environmental stewardship.



Green & Transition Technology

Investments are aimed at renewable energy deployment, grid connectivity for green sources, carbon capture innovations, bioenergy development, and smart grid upgrades to optimise energy distribution.



Sustainable Transport

Projects focus on transitioning to electric transport, expanding electric vehicle (EV) infrastructure, and promoting eco-friendly urban mobility.

ESG Integration into our Investment Process

1 Pre-investment Due Diligence

- **Assessing ESG Risks:** Identifying any environmental impacts and regulations, social concerns, and governance issues that could affect the investment's performance.
- **Evaluating Compliance:** Ensuring the potential investment adheres to relevant ESG-related laws, regulations, and standards.

2 Investment Decision-making

- **Integrating ESG into Business Analysis:** Assessing how ESG factors may affect business strategy and could impact the financial outcomes, including potential costs, savings, or revenue drivers.
- **Weighting ESG Factors:** Giving appropriate consideration to material ESG issues in the investment appraisal and selection process.

3 Post-investment Management

- **Reporting and Monitoring:** Regularly tracking ESG performance and reporting on progress against ESG objectives and metrics; incorporating ESG topics into the agendas of ongoing Committees under Board supervision for enhanced oversight and strategic integration.
- **Active Engagement:** Working with the management of invested entities to improve their ESG performance, leveraging the ESG experience and best practices across business units to foster a culture of sustainability and responsibility.

Total Green Spending on Sustainable Activities in 2023 HK\$8,230 million



Asset Modernisation and Integrity

Investment in asset modernisation and integrity is being prioritised to enhance energy efficiency, reduce environmental impact, and uphold the reliability and safety of operational procedures.



Integrated Environmental Stewardship

Our capital is directed towards a comprehensive approach that encompasses sustainable water management, circular economy principles, and the active preservation of biodiversity within ecosystems.



Governance

The Group responds swiftly to safeguard nations' energy security, capitalise on the opportunities of the energy transition and increase our transparency in disclosure. We continuously strive to embed good corporate governance practices and risk management to form the bedrock of a sustainable business and underpin long-term success.

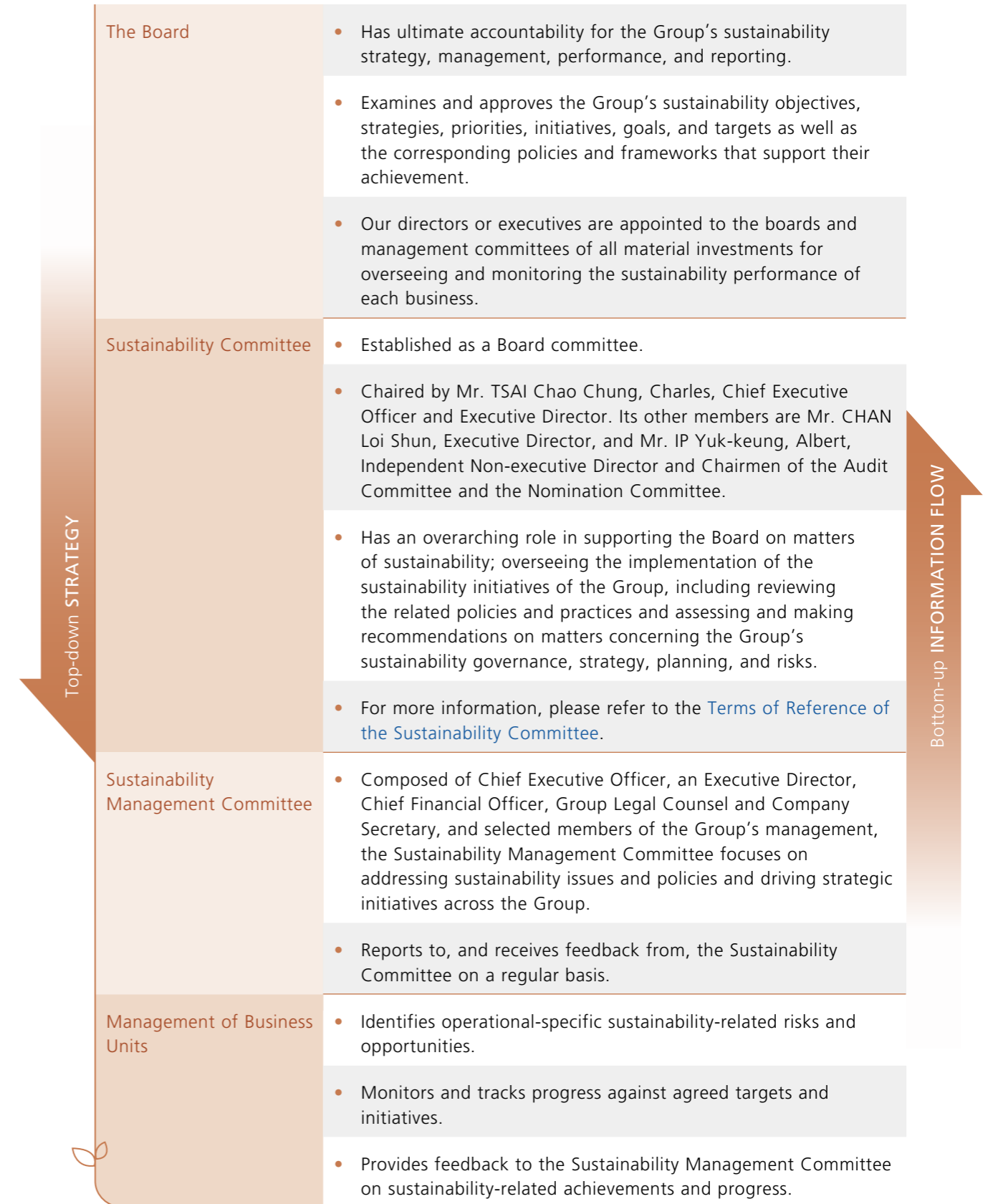


The maple leaf, symbolising courage and endurance, stands as an emblem of Canada in North America.

Sustainability Governance

The Group’s sustainability governance structure provides a solid foundation for developing and delivering its commitment to sustainability. This is embedded at all levels of the Group, including the Board, the Sustainability Committee and the Sustainability Management Committee, comprising the CEO and selected management members. The Sustainability Committee and the Sustainability Management Committee provide guidance to our businesses to maintain consistency in implementing their own sustainability strategies, managing goals, targets, and reporting processes, strengthening relations with internal and external stakeholders, and ensuring overall accountability. Our CEO, Mr. TSAI Chao Chung, Charles, holds a position at the Board level and chairs both our Sustainability Committee and Sustainability Management Committee with responsibility for overseeing climate change strategies, target setting and performance of our major operations. The Group delegates its directors and executives to sit on the board-level Sustainability Committees of our key business units.

The Group has formulated separate policies on sustainability, environment, supply chain management and human rights. These policies are primarily intended to serve as the ultimate guiding principles 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 in which the Group operates. To support the Group’s needs as the business environment evolves, ESG-related training programmes are provided to board members and employees. In addition to in-house training, the Group and its CK Group Companies also hosted four conferences in 2023, providing a platform for business units to share insights on various ESG topics. By fostering open communication and collaborative problem-solving, these conferences reinforced the Group’s adaptability and proactive approach to navigating the changing sustainability landscape.



ESG Conferences and Training



Environment

CK Group's First Climate Action Conference

The first CK Hutchison Climate Action Conference took place in February 2023, assembling the global leadership of the CK Hutchison Group. There were over 700 unique signups and an average of over 400 attendees per day. This three-day conference boosted employee and customer engagement, using ESG as a lens for seeking out new business opportunities to drive the Group's commitment to the pursuit of net zero GHG emissions by 2050.



Future Technology Conference 2023

This conference, under the theme of "Innovation for Net Zero Transition", brought business units together to share their decarbonisation journeys, including innovations in solar energy, biomethane, and electricity networks. Each business unit presented emission reduction plans and innovative solutions for sustainability, reflecting industry collaboration for a greener future.



Training

- Sustainability Essentials for Business
- CKI/PAH Hydrogen Colloquium 2023
- Carbon Audit



Social

Health and Safety Conference 2023

In October, business unit representatives presented a wealth of initiatives, each contributing to the Group's collective goal of safeguarding health and safety. Topics included safety mindset, new technologies, hazard awareness and workplace mental health. This forum highlighted the Group's commitment to building a strong safety culture that supports employee and customer well-being.



Training

- Cyber Security Training
- Performance Planning Workshop
- Health and Safety in Workplace
- Modern Slavery Training



Governance

PR Conference 2023

The PR conference in November highlighted Corporate and Community Affairs' crucial role in stakeholder engagement, crisis management in cyber-security, and communication, showcasing the evolution of Corporate Affairs functions in reflecting organisations' low-carbon vision and values in terms of policy making.



Training

- Personal Data (Privacy) Ordinance
- Prevention of Bribery Ordinance
- Code of Conduct
- Whistleblowing and anti-corruption

Approach to Sustainability

Overview of work done by the Sustainability Committee

The Sustainability Committee held two meetings in 2023. During that year, members:

Reviewed the Company's pledge for the United Nations Global Compact (UNGC)

Reviewed the Company's alignment with SDGs and implementation of its sustainability strategies and approved its alignment of an additional goal

Reviewed the ESG Risk Management Framework and resources and training pertaining to sustainability performance and reporting

Assessed the Group and its business units' material sustainability issues, stakeholder engagement, health and safety management, environmental management, and other sustainability areas

Reviewed the Sustainability Report 2022

Subsequent to the financial year, the Sustainability Committee met in March 2024 to review the Sustainability Report 2023 and recommend it for Board approval.

In 2023, the Sustainability Management Committee engaged in a thorough review of the United Nations Sustainable Development Goals (SDGs) and proposed the addition of two new SDGs by reviewing and prioritising relevant goals that resonate most closely with the Group's business strategies. The Sustainability Management Committee also reported to the Sustainability Committee on the health, safety, security, and

environment (HSSE) regulatory compliance and performance, feedback from different sustainability assessments, material topics that concern stakeholders, and suggested areas of improvements. Additionally, the Sustainability Management Committee discussed and reported on the status and progress of the Group's disclosure to the Sustainability Committee.

Our business approach is anchored in responsibility and sustainability, with a commitment to maintaining transparency and accountability to all our stakeholders. The Group's dedication extends beyond our shareholders to encompass a wide range of stakeholders including employees, customers, suppliers, the local community, professional institutions, Non-Governmental Organisation (NGO), and related government authorities.

Sustainability Pillars and Policies


The Group's commitment to sustainability is structured around five pillars: the Business, Human Capital, the Environment, the Community, and the Value Chain. These pillars are underpinned by comprehensive policies, steered by leadership at the highest level, and propelled by the collective actions of our various businesses. They serve as our roadmap for weaving sustainable practices into every facet of our operations.

Throughout this Report, we detail the policies, procedures, and guidelines we have established to empower management to manage sustainability issues effectively. These guiding principles are embraced across the Group and tailored by each business unit to meet the unique social, economic, and environmental contexts within which they operate. Continuous oversight, through systematic managerial reviews and reporting mechanisms, ensures strict adherence and execution. These foundational pillars are the compass that directs our journey towards becoming a frontrunner in sustainable development within our industry.

The Group is guided by a robust set of ESG policies that underpin our operations and strategic objectives. These policies ensure we consistently apply ethical, sustainable, and responsible standards across all areas of our business, reflecting our commitment to environmental stewardship, social responsibility, and strong governance. For more information on relevant policies and procedures in place, please refer to the Corporate Policies on the Group's [corporate website](#).

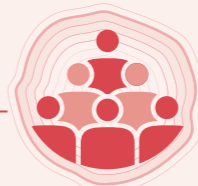
Environment

- Sustainability Policy
- Environmental Policy



Social

- Code of Conduct
- Health and Safety Policy
- Customer Service Policy
- Quality Policy
- Supplier Code of Conduct



Governance

- Anti-fraud and Anti-bribery Policy
- Board Diversity Policy
- Director Nomination Policy
- Human Rights Policy
- Modern Slavery and Human Trafficking Statement
- Information Security Policy
- Media, Public Engagement and Donation Policy
- Personal Data Privacy Policy
- Policy on Inside Information and Securities Dealing
- Shareholder Communication Policy
- Whistleblowing Procedure




Sustainability Pillars and Policies

The Business

A sound business model is imperative to help us stay competitive within the market. It also permits us to attract new investment opportunities, retain talents and motivate staff to pursue sustainable development.

Our Key Focus

- Deliver stable and long-term values for shareholders
- Focus on sustainable development of its businesses and the communities in which it operates
- Conduct business with uncompromising integrity and safeguard against unfair business practices
- Maintain a high standard of corporate governance
- Comply with all relevant and applicable laws and regulations

Human Capital

Human capital is at the heart of our operations and remains an indispensable element to our corporate success. We strive to create an inclusive, diverse and fair environment for all our employees.

Our Key Focus

- Uphold a high standard of business ethics and the personal conduct of employees
- Implement fair and just transition principles, ensuring the changes towards sustainable practices are equitable and consider the well-being of all employees
- Create a safe, inclusive environment that respects and leverages the broad spectrum of ideas and experiences brought by a diverse workforce
- Promote equitable opportunities for personal and professional growth, aligning a variety of training and development options with both individual aspirations and business objectives
- Maintain proper systems to ensure internal equity and external competitiveness of staff remuneration and recognition

The Community

Community is crucial to the realisation of our decarbonisation pursuits. We work hard to engage with our stakeholders frequently to strengthen our communication channels, learn their needs and ultimately improve our sustainability performance.

Our Key Focus

- Engage in a broad range of philanthropic activities that support and address the specific needs of local and indigenous communities
- Educate the public on the importance of energy conservation and the transition to low-carbon lifestyles
- Implement internal guidelines and controls on donations and contributions to safeguard shareholders' interests
- Motivate our workforce to play a positive and active role in community

The Environment

Environmental protection is one of our corporate principles and sustainability strategies. We firmly believe that as a global energy investor, we must lead in the decarbonisation of our sector and manage our energy assets responsibly.

Our Key Focus

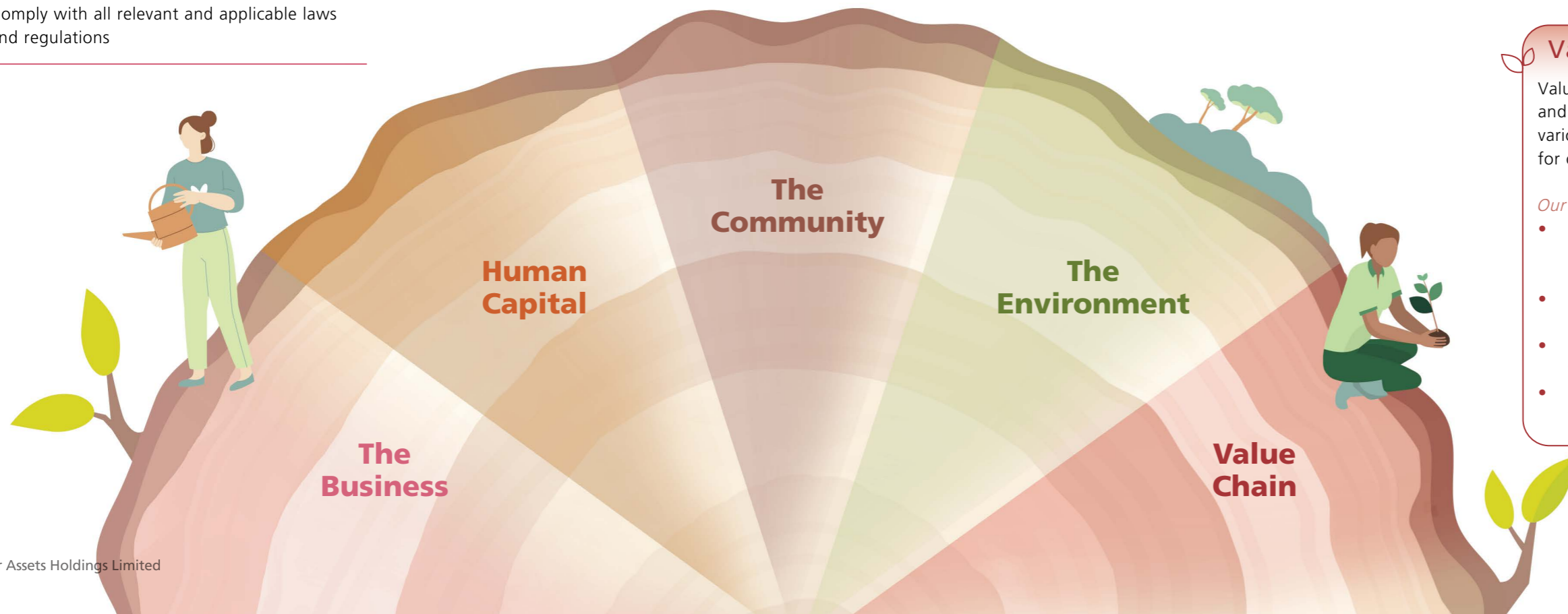
- Facilitate the shift toward a low-carbon future and various government's decarbonisation plans
- Develop climate strategy to mitigate climate risks and implement appropriate innovations and new technologies to capture the opportunities arising from these risks
- Implement initiatives to minimise the environmental footprint of our operations
- Promote and sustain our environmental conservation and biodiversity protection efforts
- Reduce water stress and manage water-related risks

Value Chain

Value chain helps increase our business efficiency and provides a step-wise business model that brings various business activities together to create value for our customers.

Our Key Focus

- Operate with sound management systems that effectively identify and mitigate our supply chain risks
- Uphold the principles of the Group's Suppliers Code of Conduct
- Support human rights and exercise due diligence throughout the supply chain
- Invest in technologies and innovative solutions to improve business resilience



Stakeholder Engagement

The Group acknowledges the importance of engaging and collaborating with stakeholders effectively. Given the diversity of our business operations, we interact with a wide range of stakeholder groups, such as our employees, customers, business partners, suppliers and investors, along with regulatory bodies, government representatives, NGOs, and the broader community.

We promote two-way dialogue with stakeholders, and ensure they have sufficient capacity to communicate with us through proper channels. The insights and feedback from these groups are vital, enabling us to address sustainability challenges and seize opportunities with greater agility and informed understanding.



EMPLOYEES

Engagement Procedures:

- Inductions
- Surveys
- Interviews
- Training
- Virtual and in-person forums



CUSTOMERS

Engagement Procedures:

- Websites
- Social media
- Customer service
- Satisfaction surveys



SUPPLIERS

Engagement Procedures:

- Supplier screenings and assessments
- Online surveys
- Technical briefings
- Informative training



INVESTORS AND BUSINESS PARTNERS

Engagement Procedures:

- Annual General Meetings
- Investor relations
- Annual reports
- Presentations
- Meetings and dialogues



GOVERNMENT AND REGULATORY AUTHORITIES

Engagement Procedures:

- Statutory filings and announcements
- Letters to institutions
- Direct meetings
- Annual reports



NGOS AND COMMUNITY PARTNERS

Engagement Procedures:

- Focus groups
- Donations
- Volunteering

Insights from our diverse stakeholder base aid the Group and its business units in staying attuned to evolving market demands and overarching global sustainability currents. These perspectives are crucial in shaping the Group's sustainability-related decisions, actions, and data disclosure. Over the past years, our stakeholder engagement efforts have translated valuable feedback on ESG matters into tangible initiatives.

Recognising that effective strategy encompasses people as well as technology and processes, we are dedicated to advancing the gender-responsive just transition conscientiously. This progressive concept promotes gender equality and prioritises the social well-being of communities alongside the shift toward a low-carbon economy. By working closely

with local authorities and industry coalitions, the Group and its business units are crafting responsible business practices and mapping out potential routes to decarbonisation.

We actively participate in the UNGC Network, Hydrogen Council and other energy institutions and societies which have provided us with networking opportunities with fellow signatories worldwide and access to guidance on industry best practices, which we continuously use to enhance our sustainability initiatives.

The figures for stakeholder engagement in some of our major operating markets are given below:

Major Operating Markets	Number of Stakeholder Engagements Held	Number of Stakeholders Engaged
Australia and New Zealand	53	Over 700
United Kingdom	934	Over 700,000
Hong Kong	2,900	Over 120,000
Total	3,887	Over 820,000



Materiality Assessment

Stakeholder contributions are fundamental in informing our sustainability strategy. Such insights enable us to pinpoint the critical elements of sustainability issues that require our attention.

In 2022, we refined our list of material issues, engaging an independent consultant to assist with the process as follows:

Materiality Assessment Process

Identification

- Applied a four-part analysis which looked at industry standards, industry peers, ESG ratings and the operating companies' previous stakeholder engagement results.
- Identified a potential list of material sustainability issues that are considered relevant and important to our business and its stakeholders.

Evaluation and Prioritisation

- Engaged with institutional investors and ESG service providers via online survey to gain insight on material issues and alignment with sustainability priorities.
- Prioritised issues that have a significant impact on the Group's ability to create long-term and sustainable value based on results from stakeholder engagement and desktop research.

Validation

- Reviewed by the Group's management team and approved the material issues by the Sustainability Committee.

We reassessed our list of material issues in 2023, drawing from extensive desktop research into ESG megatrends, peer benchmarking, and analysis of ESG ratings with the assistance of an independent advisor. Then the Sustainability Committee reviewed and endorsed these material issues. This exercise reaffirmed that our previously identified material issues remain consistent and pertinent. As we progress through the year, these issues are substantiated by prevailing ESG trends influencing global decision-making. The importance of decarbonisation, the hydrogen economy, and the broader energy transition is underscored by the persistent priority of clean energy amidst energy security concerns. This aligns with our ongoing emphasis on GHG emissions reduction, confirming our commitment to these areas is well-placed.

Meanwhile, economic volatility has put the spotlight on the sustainability of employment practices, emphasising the importance of our commitment

to human capital management and occupational health and safety. Our investment in innovation and digitalisation is further justified as we help customers navigate the low-carbon transition, while community engagement remains key in maintaining strong stakeholder relationships. Supply chain sustainability is another area of focus, as businesses face increased pressure to ensure resilient and responsible supply chains. Finally, the evergreen principles of corporate governance and business ethics remain essential, with market trends demanding high standards in transparency and ethical conduct.

Overall, the current ESG landscape not only confirms the relevance of our previous material issues, but also emphasises the importance of continuous focus and improvement in these areas. To reinforce our dedication to these ideals, the Group became a member of the UNGC in 2022. We have integrated the principles of the UNGC into our strategic

planning, corporate culture, and daily operations, ensuring our ongoing commitment to these values. In parallel, we have aligned these material issues with the SDGs and the Ten Principles of the UNGC

that intersect with our key areas of focus, ensuring that our strategic objectives not only advance our business priorities but also contribute positively to the broader global sustainability agenda.

Material Sustainability Topics

Environment

- Decarbonisation, Hydrogen Economy, and Energy Transition
- GHG Emissions
- Preservation of the Natural Environment and Environmental Management
- Innovation and Digitalisation

Social

- Human Capital Management
- Occupational Health and Safety
- Reliability, Asset Integrity and Cybersecurity
- Customer Services and Helping Customer with Low-Carbon Transition
- Community Engagement and Investment
- Supply Chain Management

Governance

- Corporate Governance
- Business Ethics

Alignment with SDGs



Alignment with the Ten Principles of UNGC

- **Principle 7:** Business should support a precautionary approach to environmental challenges
- **Principle 8:** Undertake Initiatives to promote greater environmental responsibility
- **Principle 9:** Encourage the development and diffusion of environmentally-friendly technologies

- **Principle 1:** Businesses should support and respect the protection of internationally proclaimed human rights
- **Principle 2:** Make sure that they are not complicit in human rights abuses
- **Principle 3:** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining
- **Principle 4:** The elimination of all forms of forced and compulsory labour
- **Principle 5:** The effective abolition of child labour
- **Principle 6:** The elimination of discrimination in respect of employment and occupation

- **Principle 10:** Businesses should work against corruption in all its forms, including extortion and bribery

Contribution to UN SDGs and UNGC

Integrating double materiality

As the Group looks to the future of sustainable reporting, double materiality stands as a crucial component yet to be adopted in our processes. This approach recognises the dual significance of sustainability impacts – to a company’s financial performance and its reputation, as well as their broader implications for societal welfare and environmental health.

Double materiality encourages companies to acknowledge and address sustainability issues that hold weight both within the corporate sphere and in the wider world. It promotes a more holistic approach to reporting and strategising, aiming to fulfil the expectations of stakeholders while enhancing decision-making to better integrate sustainability considerations.

The Group is committed to a future where our business decisions are informed by a comprehensive understanding of sustainability impacts, reflecting our dedication to accountability and long-term value creation for all stakeholders. As we lay the groundwork for embracing double materiality, the Group is exploring an assessment process of double materiality to enhance the transparency of our reporting and to help make decisions that actively support a sustainable future.

Contributing to the SDGs and adhering to the UNGC is crucial for companies seeking to foster sustainable development and corporate responsibility. By aligning with the UNGC’s Ten Principles, businesses commit to respecting and promoting human rights, labour rights, environmental protection, and anti-corruption, creating a solid foundation that upholds the ethos of the SDGs. The Group is deeply committed to these principles, recognising that responsible operations and innovative contributions to the SDGs are integral to our strategy. We actively incorporate the UNGC framework into our policies and practices, ensuring we contribute positively to societal and environmental progress. This approach positions us to leverage the opportunities in the growing market for sustainable solutions, in line with the wider goal of achieving lasting prosperity. The synergy between our efforts toward the SDGs and the UNGC’s vision underscores our holistic approach to corporate sustainability and responsible business practices.

In our ongoing commitment to align with global sustainability goals, the Group made a strategic decision in 2023 to expand our focus by incorporating SDG 5 (Gender Equality) and SDG 11 (Sustainable Cities and Communities) alongside our previously endorsed SDGs. This inclusion reflects a deepening of our commitment to promoting diversity and inclusion within our workforce and enhancing the sustainability of the urban environments in which we operate.

The decision to integrate SDG 5 into our business practices stems from a recognition of the transformative impact that gender equality has on organisational success and societal advancement. We are dedicated to fostering an inclusive culture that empowers all genders and ensures equal opportunities at every level of our operations.

Incorporating SDG 11, on the other hand, is a testament to our resolve in addressing the challenges of urbanisation. We are actively working towards creating more sustainable and resilient cities through our contributions to infrastructure and energy efficiency, and by placing community well-being at the heart of our businesses.



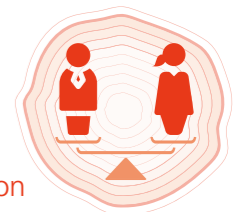
SDG 5 | Gender Equality

- 5.1 End all forms of discrimination against all women and girls everywhere
- 5.5 Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

Power Assets has zero tolerance against any form of discrimination or harassment. We strive to create a diverse and inclusive workplace where equal opportunities to thrive are offered to all staff.

Launched more than **30** initiatives

such as revising Diversity, Equity and Inclusion Action Plan, to foster a culture of diversity and inclusiveness



7 AFFORDABLE AND CLEAN ENERGY



SDG 7 | Affordable and Clean Energy

- 7.1 Ensure universal access to affordable, reliable and modern energy services
- 7.2 Increase substantially the share of renewable energy in the global energy mix
- 7.3 Double the global rate of improvement in energy efficiency

Power Assets is committed to advancing the shift toward a new energy model by providing modern, sustainable, and affordable energy options. We continually aim to progress and adapt, ensuring our services are inclusive and available to all customers, including the most vulnerable.

Launched **6** initiatives

such as subsidies and concessionary schemes to promote access to affordable energy

100%

of our gas distribution companies developed plans to blend green gases like biomethane or hydrogen into existing gas distribution system



8 DECENT WORK AND ECONOMIC GROWTH



SDG 8 | Decent Work and Economic Growth

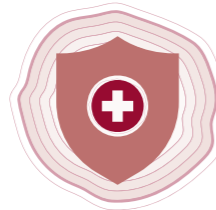
- 8.2 Achieve higher levels of economic productivity through diversification, technological upgrading, and innovation
- 8.7 Take immediate and effective measures to eradicate forced labour and end modern slavery, human trafficking, and child labour in all its forms
- 8.8 Protect labour rights and promote safe and secure working environments for all workers

Power Assets recognises the critical role our workforce plays in moving towards a cleaner energy future. We place great emphasis on the health and safety of our employees and contractors. Additionally, we offer training and development programmes for our full-time staff to support their professional growth and help them achieve their career goals.



97%

of our full-time employees received training



83%

of our employees were covered by ISO 45001-certified Health & Safety Management System

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



SDG 9 | Industry, Innovation and Infrastructure

- 9.1 Develop quality, reliable, sustainable and resilient infrastructure with a focus on affordable and equitable access for all
- 9.4 Upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally technologies

Power Assets is dedicated to ensuring a sustainable energy supply by investing heavily in resilient and eco-friendly energy infrastructure. Our goal is to build robust energy systems for the future through investments in advanced technologies and innovative solutions. These efforts support the adoption of renewable energy, uphold a reliable electricity supply, and enhance customer convenience.



100%

of our electricity transmission and distribution companies committed to investing in smart energy solutions

11 SUSTAINABLE CITIES AND COMMUNITIES



SDG 11 | Sustainable Cities and Communities

- 11.6 Reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

Power Assets is steadfast in its commitment to driving progress towards sustainable urban development. Recognising our influential role in shaping energy-efficient cities, we are investing in infrastructure that supports clean and affordable energy. Our initiatives are geared towards enhancing urban sustainability, reducing the environmental impact of our operations, and fostering communities that are resilient to the challenges posed by climate change.



over **78%**

of the Group's attributable revenue were covered by Environmental Management System ("EMS") certified by ISO 14001 or other relevant EMS certificates

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



SDG 12 | Responsible Consumption and Production

- 12.4 Achieve environmentally sound management of all waste throughout its life cycle to minimise adverse impacts on human health and the environment
- 12.5 Reduce waste generation through prevention, reduction, recycling and reuse

Power Assets is committed to environmental stewardship by supporting sustainable production practices. We encourage a circular economy by investing energy-from-waste projects and integrating circular principles throughout our operations and value chain where suitable.

Purchased electricity consumption –
583,901 MWh
a 7.1% reduction compared to 2022



Water consumption –
1,033,355 thousands of m³
a 4.8% reduction compared to 2022



13 CLIMATE ACTION



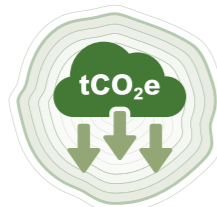
SDG 13 | Climate Action

- 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters
- 13.2 Integrate climate change measures into national policies, strategies and planning
- 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Power Assets is dedicated to actively seeking out and implementing strategies that reduce the effects of climate change. Understanding our significant role in reducing emissions, we are concentrating on growing our renewable energy capabilities and steadily moving away from fossil fuels in our power generation operations.



Scope 1 and 2 emissions –
7,224,818 tCO₂e
a 1.7% reduction compared to 2022



Scope 3 emissions –
705,633 tCO₂e
from the Group's business operations which cover a total of 83% of our attributable revenue

As the Group fortifies its commitment to the SDGs, our strategic initiatives are inherently aligned with the broader principles advocated by the UNGC. As the world's largest corporate social responsibility initiative, UNGC stands as a visionary initiative, conceived to inspire and guide businesses worldwide to adopt sustainable and socially responsible policies. To publicly affirm our commitment to the UNGC's Ten Principles, we have submitted our Communication on Progress (CoP) alongside a CEO Statement of Continued Support. This submission not only reflects our ongoing pledge to these principles at the highest organisational level but also encapsulates our resolve to uphold and advocate for responsible business practices across the spectrum of human rights, labour, environment, and anti-corruption.

As a signatory to the UNGC, our adherence to its principles is integral to our philosophy, driving us to implement sustainable practices across all levels of operation and to engage in transparent reporting and stakeholder accountability. Our advocacy for the UNGC is not limited to our organisational boundaries but extends to influencing our partners and the wider community to embrace the UNGC's framework. For example, our business units in Australia have joined the RAP programme to support the local indigenous communities. This approach not only enhances our contribution to the SDGs but also solidifies our standing as a business leader in sustainable development and corporate responsibility.



OCEANIA

Human Rights – Encouraging the livelihoods of First Nations People

Since 2006, RAPs have enabled organisations to take meaningful, sustainable, and strategic action to advance reconciliation. The RAP programme is delivered by Reconciliation Australia, an NGO that promotes better relationships between the Australian community and the First Nations people to foster a just, equitable, and reconciled Australia.

Our business units operate across various landscapes in Australia, where First Nations people have been the traditional custodians of the land. To contribute to a broader movement of reconciliation across the nation, our business units in Australia have developed their own RAPs and launched various initiatives.

SAPN has joined Supply Nation, an NGO dedicated to growing the Aboriginal and Torres Strait Islander business sector through the promotion of supplier diversity in Australia. SAPN is looking to improve its engagement plan by encouraging key suppliers to collaborate with First Nations organisations as subcontractors.

Meanwhile, EDL has partnered with community organisations to support the capacity building of local Indigenous-owned businesses and has provided cultural awareness training to its employees. Each initiative represents a step towards creating a more inclusive and equitable society that respects and honours the Indigenous Peoples of Australia.



SAPN supports the Open Circle Discussion Group of Australia Day Council of South Australia, which ensures First Nations peoples' voices and engagement.



A new artwork by Presten Warren, entitled 'Empowering South Australia', forms the visual centrepiece for the very first SAPN RAP which symbolises the role of SAPN in the community and the reconciliation journey.



EDL participates in National Reconciliation Week activities in Brisbane, Australia.

In 2023, Australian Gas Infrastructure Group (AGIG) has released their inaugural RAP. This strategic document outlines the way businesses can contribute to Australia's journey of reconciliation to strengthen relationships between Aboriginal and Torres Strait Islander people and non-Indigenous peoples, for the benefit of all Australians. This is the start of AGIG's formal journey to reconciliation, and an important step to facilitating significant positive change within our influence. In developing the RAP, AGIG worked closely with their people and partners to set achievable and realistic goals that focus on aspects of their business where they can have a positive impact. AGIG has also invested in cultural awareness training for their employees to foster a more inclusive and culturally competent work environment. This training helps to promote understanding, respect, and appreciation for Indigenous cultures.



AGIG staff contribute to the RAP launch artwork in the Melbourne office.

In addition, VPN has included First Nations communities, a new identified stakeholder group in their 2023 materiality assessment.

VPN acknowledges, honours, and respects the rich histories, cultures, and rights of Australia's First Peoples. It is committed to creating and maintaining respectful, meaningful, and mutually beneficial relationships with First Peoples; Individuals, Communities, Trusts, and Organisations across the network. Beon Energy Solution, a subsidiary of VPN, is committed to making positive contributions to the communities where it operates. Recently, this has prioritised the engagement of local Aboriginal communities in large-scale renewable development. When commencing development of the Avonlie Solar Farm in southern New South Wales, the team engaged with the Wiradjuri people and employed 38 First Nations people on the build. Beon also helped people overcome barriers to employment, helping the majority of First Nations team members find new employment in the local area.



VPN participates in NAIDOC Week 2023 to listen and learn from First Peoples Elders about their culture and connection to the country.



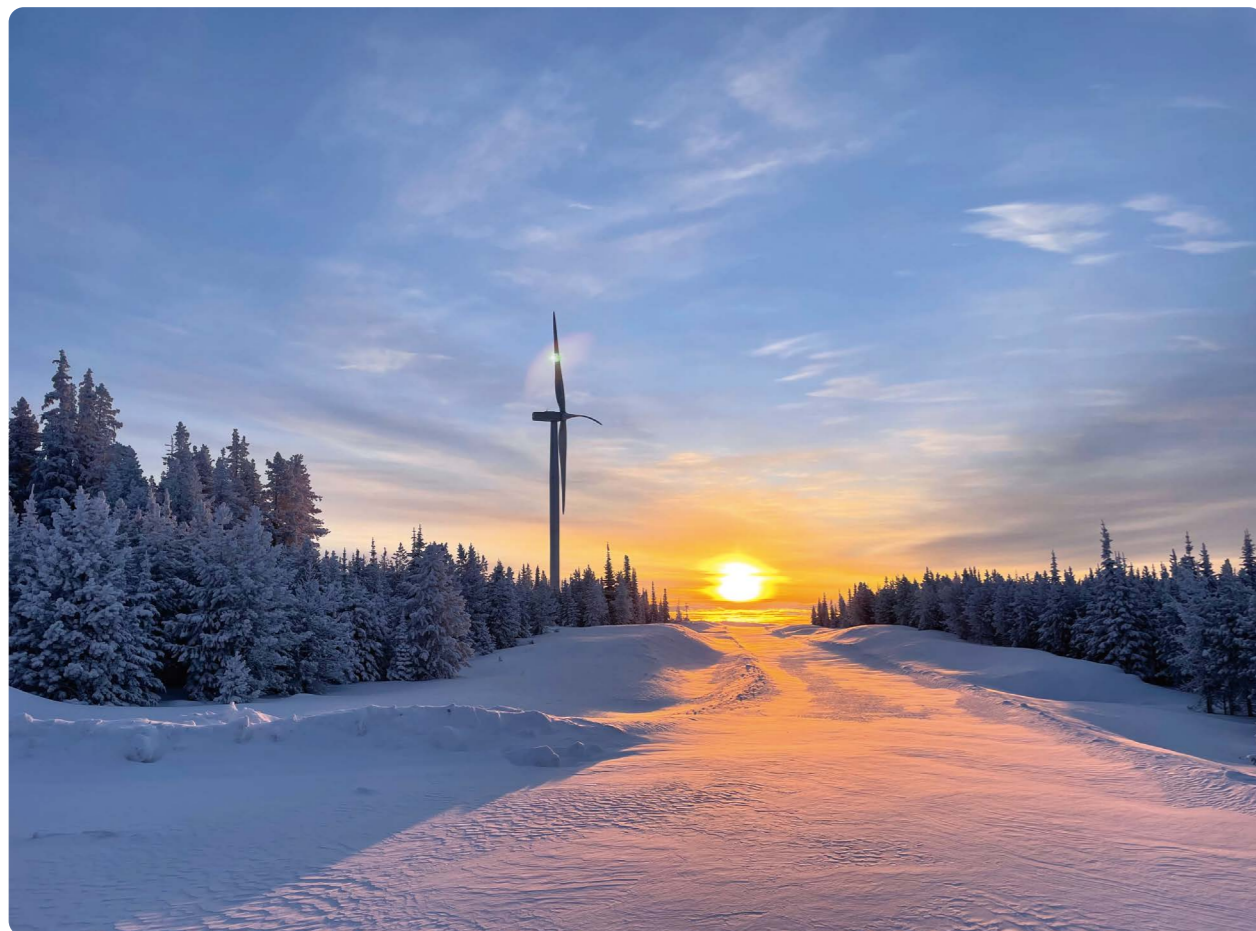
First Peoples on Yorta Yorta Country (in Shepparton region) help shape Powercor's electricity network of the future, highlighting affordability and reliability as the key priorities that should be considered in electricity network investment.

NORTH AMERICA

Canadian Power – Okanagan Wind Power Projects

The Okanagan Wind power projects, operated by Canadian Power, have made significant and lasting economic contributions to communities across Canada. For example, the projects have created about 60 jobs during the construction phase, and have contracted with local and First Nations service providers to support various construction projects.

Furthermore, it has also established an Impact Benefit Agreements with local First Nation communities. These agreements include providing access to job opportunities, annual benefit payments to the community, funds to support scholarships and wildlife preservation, and continuing roles as environmental monitors of the projects. By actively involving local First Nation communities, Canadian Power ensures the delivery of maximum value to its stakeholders and fosters sustainable economic growth within the local economy.



Upholding Business Ethics and Integrity

We are committed to fostering sustainable practices within the communities we serve, and we recognise that the way we conduct our business is just as important as our environmental goals. We operate with a clear focus on ethical practices and open communication, which are essential for long-term success.

not only compliant but also proactive in preventing any unethical behaviour. As we journey toward a lower carbon future, we are putting in place a robust governance structure and responsible practices that balance stakeholder interests, uphold our values, and influence our supply chain to uphold the same standards in their business activities. This commitment also extends to our supply chain, where we advocate for and expect the same degree of ethical business conduct.

While we strictly adhere to the regulations of the communities in which we work, our ambitions drive us to go further, ensuring that our operations are

2023 Performance Highlights

• **8,028** hours of training provided to employees on anti-corruption, ethics, and integrity



Commitments and Actions

The Group maintains an unwavering commitment to the highest standards of ethical conduct, ensuring integrity, honesty, and openness in all facets of our operations. A strict zero-tolerance policy against any acts of fraud or bribery is in place, underlining our dedication to preventing, identifying, and addressing any such misconduct.

The responsibility for upholding our ethical code rests with the Board, which is supported by the Executive Directors through monitoring of the Group's adherence to legal and regulatory requirements.

Regulatory Compliance

Acknowledging the critical nature of regulatory adherence, the Group has implemented comprehensive measures designed to prevent, oversee, and manage risks related to bribery, extortion, fraud, and money laundering. During the reporting period, the Group is not aware of any material breach of laws and regulations relating to bribery, extortion, fraud and/or money laundering, corruption, conflicts of interest, discrimination or harassment that would significantly impact on the Group.

Governance Policies

Relevant policies for our stakeholders are established to stipulate the Group's expectations and requirements for maintaining fair competition in all business activities.

The Code of Conduct (the "Code") sets out the professional and ethical standards for the Directors and employees of the Company to observe in all business dealings, including provisions dealing with conflict of interest, fair dealing and integrity, corruption, political contributions, personal data protection and privacy, as well as requisite reporting of illegal and unethical behaviour. The Code applies to all subsidiaries and controlled affiliates of the Group, where every Director adheres strictly to the Code including all applicable laws, rules, and regulations within the jurisdictions in which the Group operates. 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 anti-corruption policies as well as compliance programmes to verify their compliance with the policies. Relevant anti-fraud and anti-corruption clauses are incorporated into the contracts with

business partners and suppliers to ensure 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 the circumstances that 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. The Group's general policy is to avoid any form of donations to political associations or individual politicians.

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 themselves and comply with the Code. During the year, the Group provided a seminar relating to business ethics, including anti-money laundering, to 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.

ASIA

Power Assets and HK Electric – Webinar on Prevention of Bribery Ordinance

The webinar hosted by HK Electric and The Independent Commission Against Corruption (ICAC) aims to raise participants' awareness and promote ethical behaviour in the best interest of the company. By demonstrating real-life cases and incorporating videos, the webinar effectively illustrated the consequences of dishonest acts and corrupt practices, emphasising the importance of protecting the company's reputation. Attendees gained practical knowledge and strategies to prevent bribery, which enabled them to make informed and ethical decisions. This webinar provides a valuable opportunity to learn from examples and such as how to take proactive measures to foster a culture of integrity and transparency within organisations.



OCEANIA

AGIG and United Energy – Internal Trainings on the Corporate Governance and policies

AGIG has developed in-house training modules on anti-bribery and corruption, modern slavery, fraud, and other corrupt business practices. These modules are available to all staff via their Learning Management System and are mandatory for those starting work with certain teams (refresher training is also required for those employees periodically). Information on whistleblowing protections and processes for bribery and corruption is available in the Fraud, Corruption, Misconduct Prevention, & Whistleblowing Policy (located on the intranet and reviewed annually) and on posters in the offices.

United Energy also requires employees to take an anti-discrimination Workplace Behaviours iLearn training, refreshed every three years, which fosters awareness of acceptable workplace behaviour. In 2023, United Energy developed a new iLearn programme called "Understanding and Preventing Sexual Harassment," which covers the topic of discrimination on the basis of sex.

Whistle-blower Programmes

All directors, employees and other relevant stakeholders are expected 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 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 through the Audit Committee. Investigations will vary depending on the nature and particular circumstances of each report, and substantiated violations would result in appropriate disciplinary actions, including termination of employment.

During 2023, Power Assets had no reported whistleblowing cases and no convicted case of corruption. Within our business units, there were

11 reported whistleblowing cases and no convicted case of corruption. All cases have been thoroughly investigated and appropriately addressed in accordance with the business units' policies and guidelines.

In addition to the group-level processes, each core business derives its own set of internal escalation procedures to cater to its operational needs. Each operating company has its own whistleblowing system for internal and external parties and reports to the Group's Head of Internal Audit. Some of our operating companies also provide independent, confidential, and free service lines, which are available 24 hours a day, 7 days a week, to ensure employees and other stakeholders have access to a whistleblowing channel at any time. The Internal Audit Department manages the system and reports serious issues to senior management and the Audit Committee.



Climate-related Financial Disclosures

As a global investor in energy and utility-related business, we have a particularly important role to enable low-carbon journey across industries. The energy transition is simultaneously an opportunity but also a challenge to us.

The TCFD report acts as an instrument for investors and other interested parties to comprehend our strategies in reacting to climate change and the effects it has on our business operations.

Reporting on TCFD

Power Assets is committed to ensuring a reliable, affordable, and secure energy supply for the stakeholders and communities the Group serves. Our sustainability objectives hinge on decarbonising our operations and enhancing climate resilience, thereby supporting the energy transition in line with social and customer expectations.

Building on our commitment to climate action, we have diligently worked to align with the recommendations of the TCFD. In the previous year, we took significant steps by identifying the climate-related risks and opportunities that our Group may encounter. We embarked on our adviser’s proprietary climate scenario analysis to assess the potential impacts of these factors on our operations.

This report showcases the advancements we have made with the completion of the climate scenario analysis and full alignment with the TCFD recommendations. The insights gained from the scenario analysis also help inform our strategy and decision-making processes. Our efforts to continuously evaluate and adapt our strategy have revealed new opportunities in the context of a changing climate. This section includes our latest climate-related financial disclosures, categorised into four core elements: Governance, Strategy, Risk Management, and Metrics and Targets. These reflect our unwavering dedication to responsible and strategic climate resilience. We seek to continuously improve and refine our processes to respond to stakeholders’ expectations and align with industry standards and best practices.

Governance

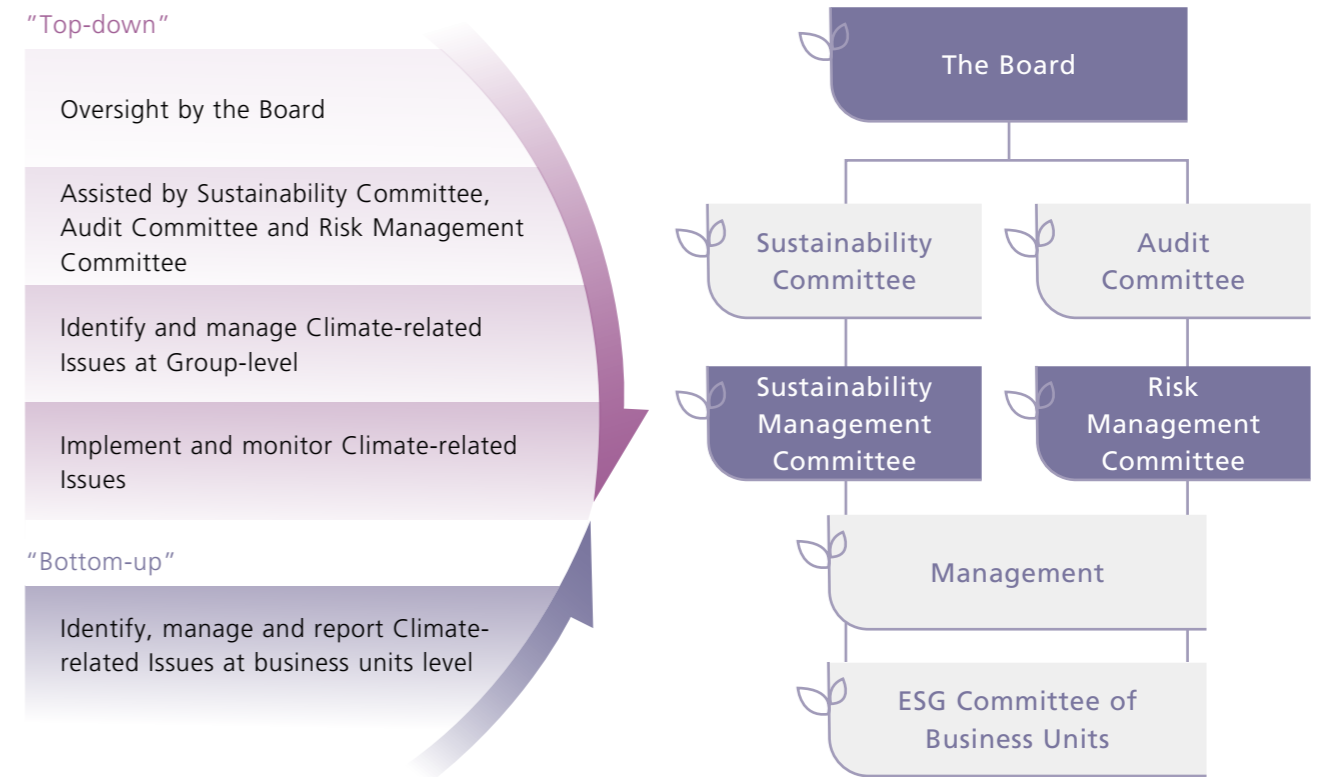
We have long recognised climate might impose significant risks to our business. Our governance firmly embeds climate-related risks and opportunities into our business planning and decision-making, enabling effective stewardship and execution of our strategy and objectives. Governance of climate-related issues follows our overall ESG governance framework, as described in the section “Sustainability Governance”. The Board and management provide oversight over the Group’s climate change approach as outlined below:

- The Board has defined clear authority and oversight mechanisms for assessing and managing climate-related risks and opportunities, recognising the importance of climate change impacts on the Group’s growth and adaptation strategies.
- The Sustainability Committee, which reports to the Board, is responsible for overseeing the Group’s sustainable business strategies and performance. It provides guidance on the development and implementation of sustainability initiatives, encompassing climate governance, strategy, planning, and risk management. In 2023, the committee conducted a review of the Group’s sustainability plans, as well as the outcomes and insights gained from the climate scenario analysis.
- The Risk Management Committee, with support from the Internal Audit department, assists the Board in monitoring climate-related risks. This committee oversees the evaluation of significant climate-related risks and the effectiveness of controls, reporting biannually on its findings.
- The Sustainability Management Committee is instrumental in implementing and tracking the Group’s sustainability strategies, with the support of management. It conducts thorough assessments of climate-related risks and opportunities, and integrates the results into the broader annual enterprise risk assessment. This integration ensures that ESG-related risks, including those associated with physical and transitional aspects of climate change, are considered in the Group’s strategic decision-making processes. The committee is also responsible for providing regular updates to the Sustainability Committee, ensuring a cohesive approach to the Group’s sustainability and climate governance efforts.

- Management is responsible for designing, implementing, and monitoring the Group’s climate-related risk management and sustainability strategies. Management identifies and monitors the Group’s key ESG-related risk based on engagement with business units and provides confirmation to the Sustainability Management Committee on its findings.

- ESG Committee of Business Units are the front line in designing, implementing, and monitoring sustainability strategies at the business unit level, escalating promptly on relevant climate-related risk issues. They have the responsibility to provide assurance and updates to the top level on the business units’ ESG-related activities and management, seeking continuous process improvement and re-assessment.

Power Assets’ Climate Governance Structure



Strategy







Our commitment is in step with the worldwide urgency for decarbonisation, and we aspire to support the net zero carbon goals set by various jurisdictions in which the Group operates. Realising this ambition will demand substantial resources, a transformative approach to asset management, and the establishment of supportive governmental policies and regulations. We are poised to contribute our operational and investment expertise to execute practical decarbonisation strategies that will prepare businesses for the future economy.




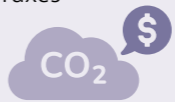


In guiding our operating companies through this transition, our sustainability objectives lead us to maintain a balance between our duty to generate enduring value for stakeholders and the resilience of our business operations. Our strategy remains to invest in assets and businesses with the potential for stable and expanding cash flows over time. We are confident that with prudent management and oversight, which includes preparing for a lower-carbon future, the value of these assets is likely to increase over time.

Material Climate-Related Risks and Opportunities

To demonstrate the resilience of a company to climate change, we first identify the material climate-related risks and opportunities. These are then subject to different climate outcomes to analyse their implications under different climate

scenarios. The following table outlines a high-level summary of the material climate-related risks and opportunities to which the Group may be significantly exposed.

Type	Climate factor	Description
Physical risks		
Acute/Chronic	Coastal inundation 	Sea water flooding due to high tides, wind, low air pressure and waves can damage coastal land, infrastructure, and buildings.
Acute	Surface water flooding 	Surface water flooding can damage low-lying buildings or infrastructure assets. Increased frequency of extreme rainfall also leads to overland flooding.
Acute	Riverine flooding 	Riverine flooding can damage low-lying buildings or infrastructure assets. Changes in precipitation in a catchment also cause a river to exceed its capacity, inundating nearby areas.
Chronic	Extreme wind 	Changes in wind regimes, sea surface temperature and wind speeds. High-wind conditions may exceed structures' design specifications.
Acute/Chronic	Extreme heat 	Electrical and mechanical components can fail or send spurious signals when their design temperature is exceeded.
Acute	Forest fire 	A destructive fire may spread via trees and forests. Flames and heat from burning vegetation can damage buildings and infrastructure.

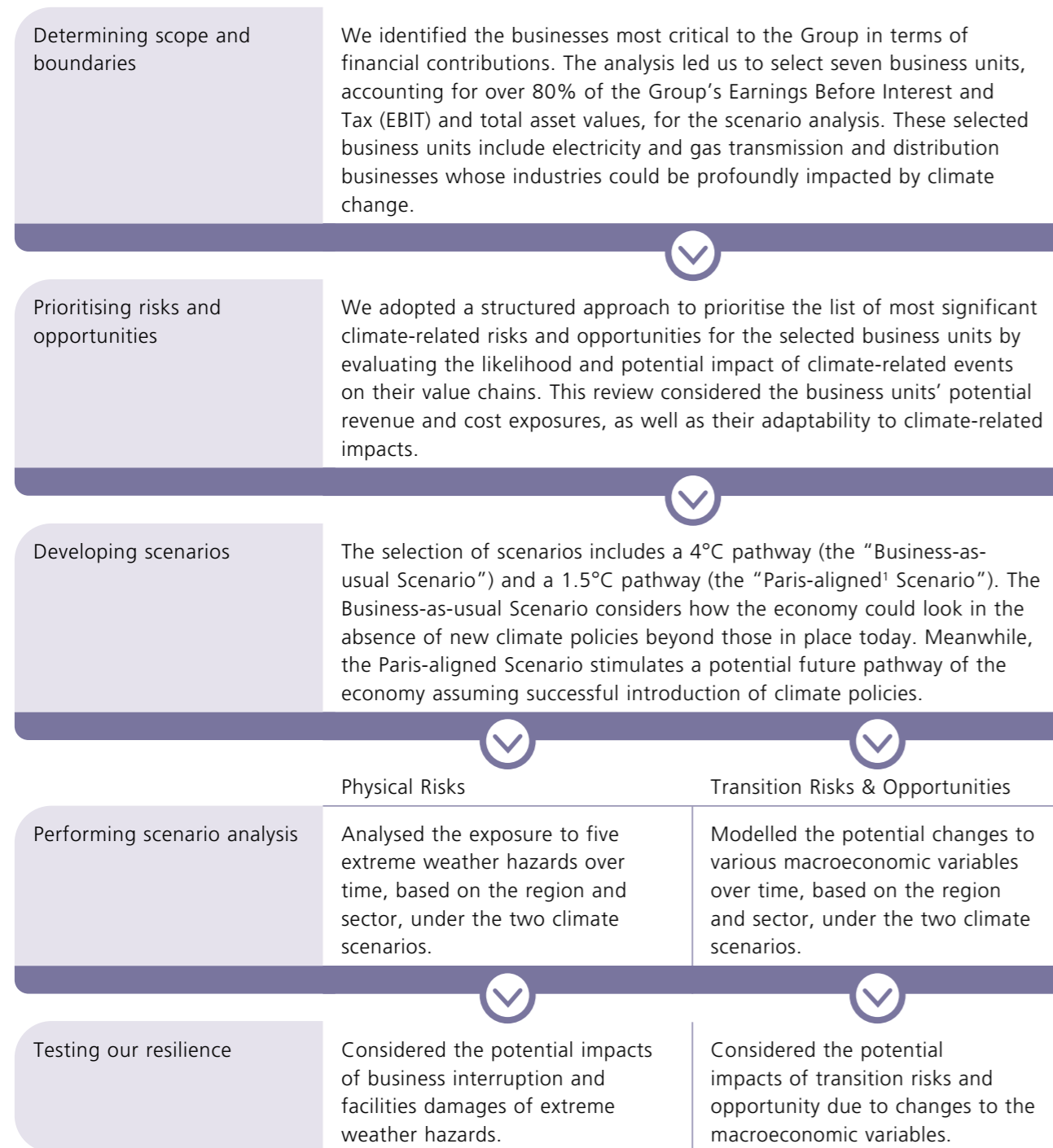
Type	Climate factor	Description
Transition risks		
Market/Technology	Changing Demand for Electricity from the Grid 	Reducing electricity consumption in an aggressively transitioning world for energy efficiency and introducing solar panels as a local intermittent electricity source will reduce demand for electricity from the grid. This may be offset by other factors, such as the technological advancements for electrification and EVs.
Market/Regulation/Reputation	Changing Demand for Gas 	Limiting global temperature increases to 1.5°C requires a significant reduction in gas consumption as an energy source as an interim measure. This is likely to be driven by changing social attitudes, economic activities, and governmental policies, reducing demand due to surge in gas prices, and introducing other zero-carbon gases, e.g., biomethane and hydrogen.
Market	Increasing Operational Expense 	Operational expenses, e.g., fossil fuel and labour costs, may change due to resource scarcity, changes in market needs, carbon price implications, and revamp in the fuel mix and technological innovation.
Policy and Legal	Introduction of Carbon Taxes 	Carbon tax mechanism is often introduced to the market due to heightened carbon emission reduction objectives. This mechanism will likely be instigated in markets where carbon markets do not currently exist and could impact all organisations with significant Scope 1 emissions.
Market	Increasing Prices of Raw Materials 	Supply-side disruptions could significantly impact raw material costs, which drive up supply chain costs for each business unit. The increase in prices of raw materials may have a flow on effect on the costs of procurement activities.
Transition opportunity		
Market/Technology	Increasing Demand for Zero-Carbon Energy 	Fossil fuel will be significantly offset by the increasing demand for energy from renewable energy sources in power generation. Increased demand for green gas sources like green hydrogen and new technologies to meet growing low-carbon transmission and distribution (T&D) networks and demand for EV infrastructure will also present new business opportunities.

Climate Scenario Analysis

The Group takes a proactive approach to anticipate and manage climate-related impacts on our businesses which includes building climate resilience into the core of our strategy and operations. We engaged an independent consultant to help conduct

climate risk assessment, including scenario analysis, to identify events that can potentially affect our business operations or become a business opportunity.

Summary of our climate scenario analysis process



¹ Paris-aligned refers to alignment to the Paris Agreement which sets out a target to limit global warming to "well below" 2°C and ideally 1.5°C by 2100.

To develop mitigating strategies, we used two scenarios covered up to 2050 to test and assess the resilience of our businesses against inherent uncertainty. Aligning with the TCFD recommendations, a high emissions/business-as-usual pathway (4°C scenario) and a stringent pathway striving to achieve a lower-carbon economy (1.5°C scenario) are selected to serve as bookends to adequately consider both physical and

transition risks and develop an understanding of how the key value drivers of our businesses might be affected under different future states. The results do not consider mitigation strategies, such as decarbonisation plans, structural reinforcements, emergency response plans, and other relevant initiatives, in place at the business units level and, as such, post-mitigation risk levels are generally likely to be lower.

Overview of Scenario Assumptions and Underlying Data Sources

Parameter assumptions

	4°C business-as-usual scenario	1.5°C high-transition scenario
Decarbonisation trends	Emissions continue to increase in line with current business-as-usual pathway	Global decarbonisation trajectory in line with achieving the Paris Agreement which sets a target to limit globally warming to well below 2°C and ideally 1.5°C by 2100
Policy expectation	Current regulatory framework remains in place, with government or state intervention on climate change maintaining its current levels	Current regulatory framework would effectively continue with additional emissions reduction measures implemented by government to achieve the global 1.5°C target
Physical impacts	Likely increased severity and frequency of climate change related weather events	Reduced likelihood of severe climate change related weather events
GDP growth	GDP continuous to grow in line with historical trends	Most economies continue to see GDP growth, but at a slower rate, as efforts to meet the global 1.5°C target lead to a diversion of resources away from other productive activities
Electricity demand	Relatively consistent with current levels	Policy support for EVs and the substitution of gas is driving an increase in consumption, with this growth being partially offset by energy savings from improved energy efficiency and consumer investments in distributed photovoltaic systems
Gas demand (fossil fuel sources)	Relatively consistent with current levels	Relatively stable consumption in the short-term, but sharp decline anticipated from 2030
Carbon pricing	No carbon pricing	Carbon prices remain low until 2030, after which the rapid implementation of climate policies leads to very high global carbon prices in all jurisdictions over the long-term
Fuel price	No further policy action and thus only moderate movements in fuel prices	Fuel prices will rise more drastically, largely driven by aggressive carbon policy
Labour price	Increase steadily in line with historical trends	Labour demand and prices are impacted by economic constraints

Climate models used and underlying data sources

	4°C business-as-usual scenario	1.5°C high-transition scenario
Physical	Proprietary physical risk model <ul style="list-style-type: none"> Emission models with CMIP5 projection data are utilised to conduct asset stress testing under two distinct scenarios – a higher emission, business-as-usual scenario consistent with the current global trajectory (RCP8.5), and a lower emission trajectory (RCP2.6). 	
Transition	Proprietary macroeconomic model <ul style="list-style-type: none"> A global economic model which incorporates an analysis of the potential carbon emissions of economic activities and the potential consequential impact of constraining emissions from different activities on macroeconomics with data sources from market leading and industry approved providers, including International Energy Agency (IEA), International Institute for Applied Systems Analysis (IIASA) shared socioeconomic pathway database, Model for the Assessment of Greenhouse Gas Induced Climate Change (MAGICC), IIASA, Joint Research Centre (JRC) GECO reports, and Global Trade Analysis Project databases. These aspects constitute an Integrated Assessment Model which draws upon climate science as established by the IPCC. 	

Guided by our strategic planning and risk management approaches, the climate-related risks and opportunities that pose a material impact to the Group are detailed below, along with our basis of measuring and responding strategically to each. Using 2021 as the base year, our scenario analysis indicates the magnitude and potential impact

of each item and how they may materialise over different time horizons: short-term (1-5 years), medium-term (5-15 years), and long-term (15-30 years). These time horizons are chosen to align with our internal actionable planning timeframes and to reflect the long-lived nature of our infrastructure assets.

Climate-related scenario analysis serves as a valuable tool to understand potential business performance under various future states, helping organisations to develop an understanding of the possible impacts of physical and transition risks and opportunities over time, and to shape strategic responses.

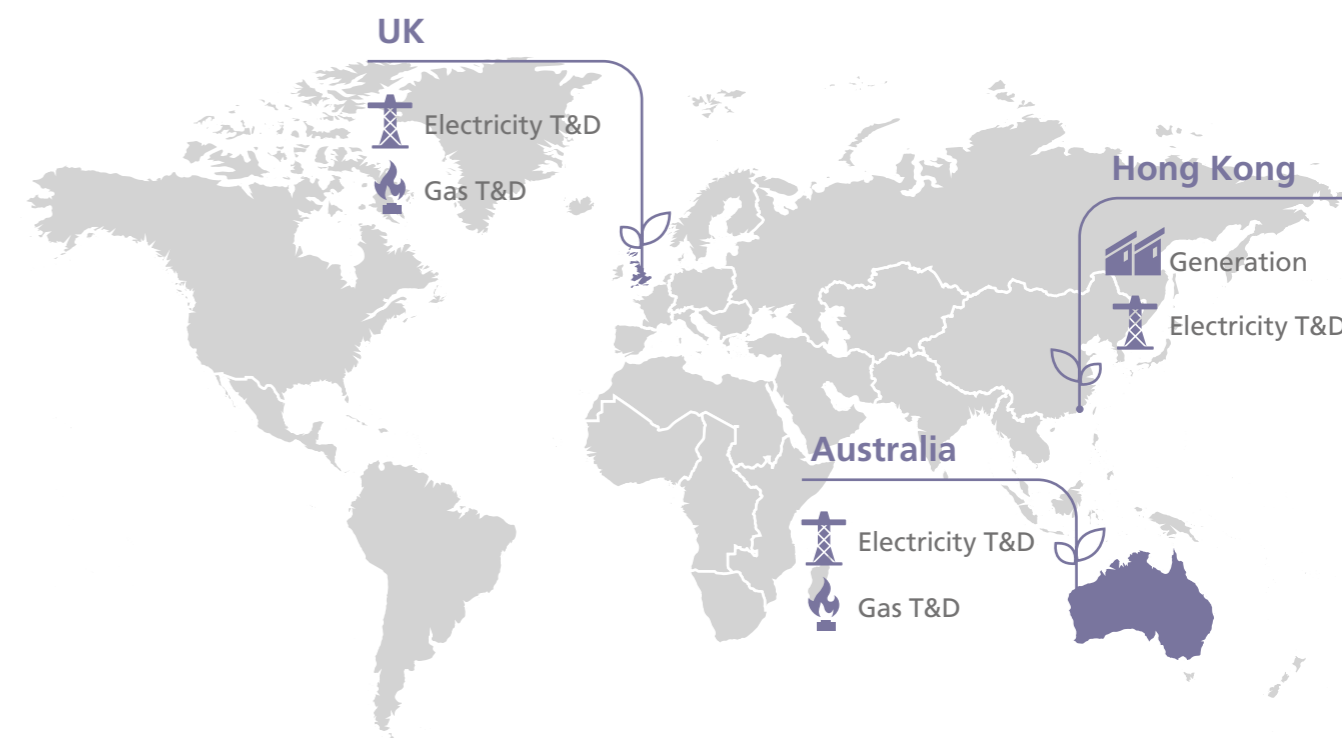
A scenario outlines a development pathway leading to a specific outcome, focusing on key elements and drivers of possible future scenarios rather than offering a comprehensive prediction. These scenarios are hypothetical constructs – they are neither forecasts nor predictions, nor are they sensitivity analyses. Consequently, scenario analysis is not meant to be seen as forecasting the expected future of the Group’s operations or as an indicator of anticipated operational results.



Determination of the scope and boundaries of scenario analysis

Our scenario analysis began by identifying the businesses most critical to the Group in terms of financial contributions. This was achieved by considering the contribution of each business unit to the EBIT and total assets of the Group. We also considered strategic importance to ensure comprehensive coverage of the majority of the financial value at risk, as well as diverse range

of business sectors and geographical locations. Following the financial materiality review and strategic considerations, three business sectors spanning three geographical regions were selected for the scenario analysis. These selected operations account for over 80% of the Group’s EBIT and total asset values.



Potential impact of assessed physical risks

Climate change is expected to increase both the frequency and severity of extreme weather events, such as floods and forest fires (acute risks). It is also expected to result in more gradual shifts, such as extreme wind and extreme heat (chronic risks). These hazards could potentially cause significant business disruption and asset damage, leading to loss of revenue. To evaluate these physical risks, we mapped our assets to their respective primary

business segments and regions. In partnership with an external physical risk specialist, we performed an analysis of our exposure to a range of perils over time under two climate scenarios. For each scenario and type of risk, we considered the potential for both asset damage and business interruption, ultimately producing a financial aggregate that reflects our exposure to the physical impacts of climate change.

Climate Related Physical Risk

Potential impact across time horizons

Legend:

High	Greater than 1.5% of asset values
Medium	0.2 – 1.5% of asset values
Low	0.01 – 0.2% of asset values
Insignificant	Less than 0.01% of asset values

Region	Sector	Scenario	Coastal flooding			Riverine flooding			Surface water flooding			Extreme wind			Extreme heat			Forest fire			Key observation
			Short-term (1 – 5 years)	Medium-term (5 – 15 years)	Long-term (15 – 30 years)	Short-term (1 – 5 years)	Medium-term (5 – 15 years)	Long-term (15 – 30 years)	Short-term (1 – 5 years)	Medium-term (5 – 15 years)	Long-term (15 – 30 years)	Short-term (1 – 5 years)	Medium-term (5 – 15 years)	Long-term (15 – 30 years)	Short-term (1 – 5 years)	Medium-term (5 – 15 years)	Long-term (15 – 30 years)	Short-term (1 – 5 years)	Medium-term (5 – 15 years)	Long-term (15 – 30 years)	
UK	Gas T&D	4°C	Low	Low	High	Low	Low	Low	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	<p>The results indicated that coastal and riverine flooding are the most likely causes of business interruption for UK-based assets, with capital expenditure also observed to be sensitive to these types of flooding. Among the other four physical risks assessed, none appeared at material levels. However, it should be noted that the modelling for extreme wind does not explicitly account for cyclonic winds, which may also impact UK-based assets, considering the historical windstorms experienced by UK businesses.</p> <p>Sector-wise, the electricity transmission and distribution networks are more significantly affected by flooding. Sea level rise, overflowing rivers, and accumulated rainfall can cause severe water ingress to critical electrical infrastructure and ground-mounted transformers, leading to equipment damage and loss of power supply to customers.</p>
		1.5°C	Low	Low	Low	Low	Low	Low	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	
	Electricity T&D	4°C	Low	High	High	Low	Low	Low	Insignificant	Insignificant	Low	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	
		1.5°C	Low	High	High	Low	Low	Low	Insignificant	Insignificant	Low	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	
Australia	Gas T&D	4°C	Low	High	High	Low	Low	Low	Insignificant	Insignificant	Low	Insignificant	Low	Low	Low	Low	Low	Low	Low	Low	<p>In terms of business interruption, Australian-based assets have been shown to be sensitive to coastal and riverine flooding, extreme heat, and forest fires. Meanwhile, capital expenditures arising from potential physical risk impacts were found to mostly relate to coastal and riverine flooding.</p> <p>Sector-wise, the electricity transmission and distribution networks are significantly more affected by forest fires. Gas infrastructure, being predominantly underground, inherently possesses greater resilience to climate risks and is less sensitive to external influences.</p>
		1.5°C	Low	Low	Low	Low	Low	Low	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	
	Electricity T&D	4°C	Low	Low	Low	Low	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	High	High	High	
		1.5°C	Insignificant	Low	Low	Low	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	High	High	High	
Hong Kong	Generation, Electricity T&D	4°C	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Low	Low	Low	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	<p>The results indicated a higher exposure to surface water flooding compared to other modelled perils. While the current physical risk model may not fully capture the intricacies of typhoon-related events and its changes in wind regimes, rising sea levels could pose risk to Lamma Power Station in terms of operational reliability and asset integrity. Meanwhile, the potential impact of extreme heat on power generation operations could escalate rapidly under the 4°C scenario in the longer term.</p>
		1.5°C	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Low	Low	Low	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	

Managing physical risks to build resilience

Our physical risk assessment has identified business locations that may be vulnerable to particular hazards. Overall, the potential financial impact at a 1.5°C scenario presents a lower risk than that at a 4°C scenario. This reflects the associated weather impacts of extreme weather events associated with a warming world. Notwithstanding the provision of regulatory support to ensure networks are maintained to meet requisite performance standards to ensure resilience and stability in energy supply, business units have established comprehensive emergency response plans that feature evacuation procedures, prompt communication with emergency services, and the provision of medical assistance. To guarantee readiness and efficacy, these protocols are reinforced by consistent testing of emergency equipment, regular drills, and annual training for the emergency response teams. In addition to these preparedness measures, actions have been taken to bolster the resilience of our infrastructure against climate-related risks. For example, in the UK and Australia, UKPN and VPN have respectively reinforced their substations to withstand a range of flooding events. Meanwhile, in Hong Kong, HK Electric has installed anti-flooding facilities at the installations vulnerable to flooding impacts, including transmission and distribution substations near the coastal line and the Lamma Power Station as well as engaging in reliability reviews to ensure

preparedness for unexpected extreme weather events. In addition, in response to extreme forest fires in Australia, our business units within Australia, such as VPN has implemented Light Detection and Ranging (LiDAR) mapping technology to ensure effective and accurate vegetation inspections and management whilst SAPN has implemented comprehensive inspection and patrol programmes to identify and mitigate potential asset defects that could lead to fires. These proactive measures are designed to safeguard our customers' well-being and the reliability of our services in the face of climate hazards.

While we continue to address these localised risks at individual assets, the geographic spread of our multinational portfolio acts as a buffer, reducing the overall potential impact of these physical risks. Additionally, the varying vulnerability of our assets, influenced by both their category and unique characteristics, means that the diverse nature of our portfolio further aids in risk mitigation. We also factor in existing mitigation and adaptation strategies in our analysis.

We pay close attention to the structural resilience of assets under varying weather conditions. Our maintenance and capital investment strategies are designed to enhance asset integrity in the face of climatic shifts. Moreover, we proactively incorporate considerations for future environmental resilience in our standards for designing, constructing, and upgrading assets. Business continuity strategies are in place across our operating companies to lessen the impact of extreme weather events.

Potential impact of assessed transition risks and opportunities

The development of new renewable or alternative energy sources, along with critical infrastructural support, is essential for the net zero transition and to meet escalating future energy demands. As a global investor in energy and utility-related businesses, Power Assets is anticipated to progressively develop and implement comprehensive carbon reduction strategies and climate adaptation measures across both group and business unit levels. Inaction in this area could lead to rising operational costs, undermining business strategy effectiveness, and resulting in non-compliance with evolving regulations, among other potential risks.

However, the shift toward a more sustainable future will also unlock opportunities. Proactively managing transition risks and opportunities enhance the Group's capacity to foresee and adapt to imminent changes. There are chances to decrease operational costs for operating companies and improve their

responsiveness to evolving market demands. To assess these transition risks and opportunities, we project adjustments to key macroeconomic indicators under selected climate scenarios and analyse their effects on the financial performance of our strategically significant businesses over time.

In the context of assessing transition risks, the 4°C scenario serves as a 'business-as-usual' benchmark, representing a future where current trends in emissions continue without significant changes in policy or behaviour. However, the core focus of our transition risk assessment is on the 1.5°C scenario. This is because the 1.5°C scenario is not only more ambitious but also increasingly represents the direction of global policy following the Paris Agreement commitments. It embodies the concerted effort required to drastically reduce emissions and mitigate the most severe consequences of climate change.



Climate Related Transition Risk and Opportunity

Legend:



Risk/Opportunity	Relevant sector	Region	Scenario	Main impact	Potential impact across time horizons			Key observation
					Short-term (1 – 5 years)	Medium-term (5 – 15 years)	Long-term (15 – 30 years)	
Changing Demand for Electricity from Grid	Electricity generation, T&D	Hong Kong	4°C	Expanded capital investment and revenue growth for power generation and transmission businesses from the increasing demand				The 1.5°C scenario sees a higher growth in revenue/permitted returns due to investments in new infrastructure to support the increasing demand for green electricity.
			1.5°C					
	Electricity T&D	UK	4°C					
			1.5°C					
		Australia	4°C					
			1.5°C					
Changing Demand for Natural Gas	Gas T&D	UK	4°C	Revenue impact due to operational changes such as downsizing capacity or altering the operation of existing facilities				This is a key risk for each of the business units that generate revenue from gas distribution as the results indicate a sharp decline in demand for natural gas under a 1.5°C scenario.
			1.5°C					
		Australia	4°C					
			1.5°C					
Increasing in Fuel Costs	Electricity generation, T&D	Hong Kong	4°C	Increases in operating expenses ¹				Fluctuations in fuel prices significantly affect the business units that consume high volumes of gas and electricity. For the power generation and transmission business in Hong Kong, despite a similar upward trend in total fuel costs, as the prices for fossil fuels are anticipated to rise more rapidly under the 1.5°C scenario, these costs are expected to taper off after 2035 with the phase-out of local coal generation and the increase adoption of renewable energy solutions.
			1.5°C					
Increasing in Labour Costs	All	Hong Kong	4°C	Increases in operating expenses ¹				Given the diversity of labour market behaviour across regions, it is likely that economies will experience differing trajectories of labour costs. In Australia and Hong Kong, labour costs may be seen to increase gradually under the 4°C scenario. This projected change is based on historical labour cost trends, which may persist if economies do not experience the moderating effects of capital being diverted towards decarbonisation. Meanwhile, scenario analysis for the UK businesses indicates that there would be faster growth in labour demand under the 1.5°C scenario, which would drive labour costs upwards more rapidly.
			1.5°C					
		UK	4°C					
			1.5°C					
		Australia	4°C					
			1.5°C					
Introduction of Carbon Taxes	Electricity generation, T&D	Hong Kong	4°C	Increases in operating expenses ¹				In a 1.5°C scenario, it is anticipated that most jurisdictions will implement carbon pricing before 2030 to meet their Nationally Determined Contributions (NDCs) commitments, thereby posing a material risk in the medium to long-term.
			1.5°C					
	Electricity T&D	UK	4°C					
			1.5°C					
	Gas T&D	Australia	4°C					
			1.5°C					
		UK	4°C					
			1.5°C					
Australia	4°C							
	1.5°C							
Increasing Prices of Raw Materials	All	All	4°C	Increases in operating expenses ¹				Costs for materials are likely to rise due to higher energy expenses in their production, with material impacts expected to emerge in the longer term.
			1.5°C					

¹ The results present the potential changes in operating expenses. For our regulated businesses, the protective real rate of return regulations that characterise these businesses allow these rising costs to be recovered over time, which helps to maintain financial stability by aligning revenue with increased operating expenses.

Managing transition risks to build resilience and capitalising on opportunities

By assessing the transition impact under the 1.5°C scenario, we are recognising the growing consensus that dramatic and immediate action is essential. This focus allows us to prepare for the stringent policy measures, technological advancements, and shifts in investor and consumer expectations that are expected to accompany efforts to limit warming to this level. It also places us in a better position to adapt to the low-carbon transition and to anticipate the financial and strategic implications of the evolving regulatory and market landscapes that are likely to emerge from global efforts to meet this target.

Opportunities for transition within the sectors we invest in are abundant, particularly in the electricity transmission and distribution sector, which is crucial for meeting the growing demand for electricity spurred by the ongoing shift towards renewable energy sources. The Group is actively engaged in supporting this transition through the enhancement of electricity transmission and distribution infrastructure, which is essential for the effective deployment of renewable energy and the integration of flexible capacity assets, such as DSOs.

Meanwhile, the transition away from higher-carbon fuels could affect the gas transmission and distribution sector due to potentially reduced demand for fossil fuels and the impact of escalating carbon pricing. However, natural gas is likely to serve as an interim solution for baseline power generation and as a substitute for more carbon-intensive fuels like coal during the transition to renewable energy sources. The success of electrification hinges on the existence of robust infrastructure, necessitating the expansion and modernisation of transmission grids. In Hong Kong, for instance, the offshore LNG terminal

commissioned by HK Electric, jointly with another power company will facilitate the territory's transition from coal to natural gas power generation.

Additionally, our gas transmission and distribution businesses generally have indirect exposure to the changing demand for natural gas, and these assets could potentially be repurposed for a lower-carbon economy. We are engaging with our operating companies in this sector on developing decarbonisation strategies, as well as exploring new markets, including hydrogen, for their products and services. We believe that decarbonisation and repurposing efforts will mitigate the potential long-term transition risks for our businesses in this sector.

The trajectory of the shift towards a net zero economy remains highly uncertain and will vary by sector and geography. We adopt a prudent approach in assessing the exit strategies from fossil fuel-related assets. Our intention is to ensure an orderly transition that is in harmony with our dedication to sustainability and responsible investment practices. Furthermore, we are actively supporting our businesses to further develop their decarbonisation strategies through measures such as carbon capture, facility modernisation, electrification, integration of renewable energy, and other capital enhancements to align with evolving market trends and technological advancements. By carefully managing the transition from traditional to renewable energy sources, we believe our strategic approach, paired with the diverse nature of our businesses, positions us to be resilient amidst the evolving energy market and equips us to seize opportunities arising from this transition, thus safeguarding and enhancing the long-term value for our stakeholders.

Risk Management

The Group employs a rigorous approach to identifying and evaluating climate-related risks. This process permeates all levels within the Group, ensuring comprehensive risk assessment that aligns with our commitment to sustainability and value preservation. Each identified risk is meticulously assessed, considering both its potential impact and likelihood of occurrence, allowing us to prioritise our mitigation efforts effectively.



In line with our risk management framework and process, designated risk owners are tasked with the critical responsibility of developing and overseeing the implementation of appropriate mitigation strategies for each identified risk. These strategies are not static; they are subject to ongoing scrutiny and adjustment to ensure they remain effective and relevant in an ever-evolving risk landscape.

The effectiveness of our risk controls is continuously monitored and evaluated, with findings reported to ensure transparency and accountability. Our review process not only ensures the robustness of individual controls but also fosters a consistent and standardised approach to risk categorisation and management across the Group.

This structured and dynamic approach to climate risk management is integral to our operations. It allows us to anticipate and adapt to the challenges posed by climate change, thereby ensuring that our business remains resilient and that we contribute positively to the broader climate objectives that society demands.

Please refer to our Annual Report for more information on our risk management and internal control systems.

Metrics and Targets

As we look towards the future, we reaffirm our commitment to phasing out coal from our generation business, reducing our Scope 1 and 2 emissions by 67% by 2035 from our 2020 baseline, and achieving net zero by 2050. We will continue to invest in renewable energy sources, enhance our energy efficiency, and develop new business models that prioritise sustainability. The progress we have made so far gives us confidence and resolve to tackle the difficulties ahead, and we remain devoted to delivering energy solutions that are not only reliable and affordable, but also environmentally sound and sustainable.

Please refer to the section "Combating Climate Change" for details of our climate targets and the measurement of progress towards these targets.

Our ongoing climate journey

We believe that the actions implemented and integrated into our future business plans adequately build climate resilience into our business strategy. Nevertheless, we recognise that climate risk and opportunity management is an evolving practice, and we remain committed to deepening our grasp of the potential impacts that climate transition and physical issues could have on our businesses. As we gain insights from our experiences and integrate the latest in climate science, standards, and best practices, we anticipate ongoing improvements will be observed in our processes for assessing, managing, and disclosing climate-related risks and opportunities.

Environment

Our low-carbon transition plan demonstrates our commitment in achieving net zero emissions by 2050 through adopting clean energy and implementing energy efficiency initiatives. We also look beyond the climate by also focusing on biodiversity, nature, and water-related risks.



Silver Fern is a symbol of resistance and enduring power. It is also recognised as a symbol of New Zealand in Oceania.

Combating Climate Change and Reducing Carbon Footprint

The Group acknowledges the imperative to confront climate change and manages the environmental impact of each of our business operations. As experts in the energy field, we are aware that our operations can both contribute to and reduce global GHG emissions, influencing the shift towards a sustainable, low-carbon economy. Since 2021, we have been openly disclosing our commitment to phase out coal-fired generation by 2035 and extending our best efforts to support local communities across all our markets of operation to affect an energy transition and attain our decarbonisation goals. The Group remains vigilant in tracking regulatory developments and is eager to bolster government efforts toward decarbonisation.

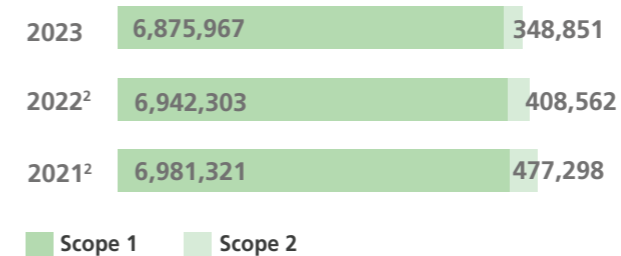
According to the IEA, today, the global average surface temperature has already risen by approximately 1.2°C compared to pre-industrial levels. This increase has intensified typhoons, heat waves and other extreme weather events. At the same time, GHG emissions have yet to peak, signalling that far-reaching and permanent structural changes across society are pressing and paramount. To meet the Paris Agreement's goals of limiting the increase in the global average temperature to 1.5°C above pre-industrial levels, the energy sector, which accounts for about two-thirds of anthropogenic GHG emissions, must be significantly transformed and decarbonised.

Furthermore, the Oil & Gas Decarbonisation Charter (OGDC), launched at COP28, marked a unified commitments from the oil and gas industry to combat climate change by striving for industry best practices in emission reductions. The OGDC's commitments to achieve net zero operations by 2050, eliminate routine flaring by 2030, and reduce methane emissions to near-zero by 2030 align with our objectives. In step with these commitments, we aim to reduce our Scope 1 and 2 emissions by 67% by 2035 from our 2020 levels, setting us on course towards net zero operations by 2050. Additionally, we recognise that the transition towards a decarbonised energy sector is not solely a climate issue but also a public health imperative. We also pay attention to the emissions associated with our network losses. In 2023, our electricity transmission and distribution losses were recorded to be 1.2% and 5.57% respectively, while our gas leakage rate was 0.79%¹. We are continuously improving our system losses and increasing the system reliability with technical advancement. As highlighted in COP28, the health benefits of climate action are substantial, and by reducing our carbon footprint, we are contributing to cleaner air and promoting climate-resilient development.

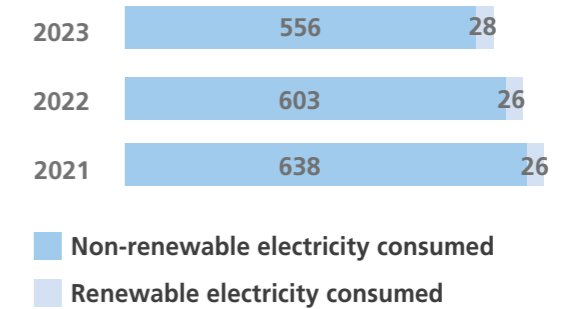


1 Included leaks of vent, fugitive, pneumatic and unburnt.

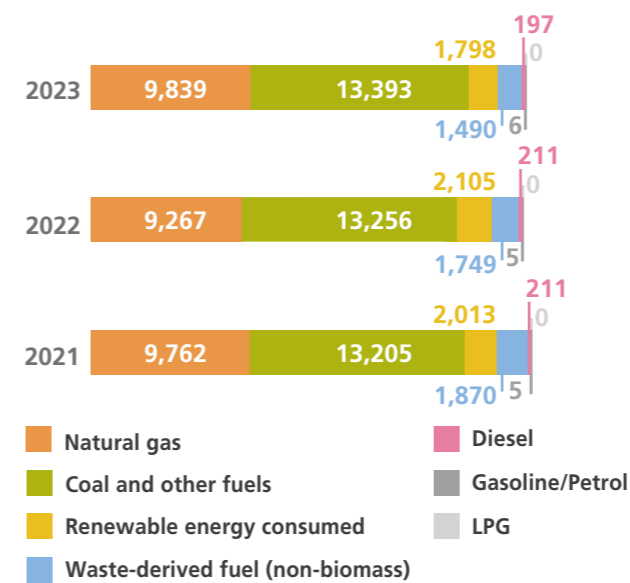
GHG Scope 1 and 2 emissions (tCO₂e)



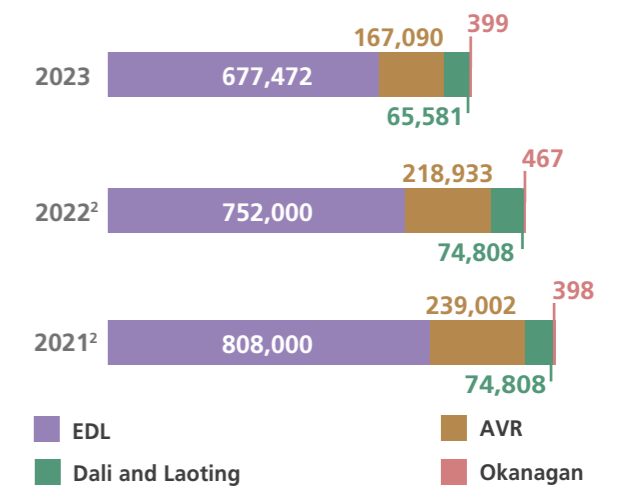
Purchased electricity for own consumption ('000 MWh)



Non-renewable and renewable energy consumption ('000 MWh)



Carbon avoidance (tCO₂e)³

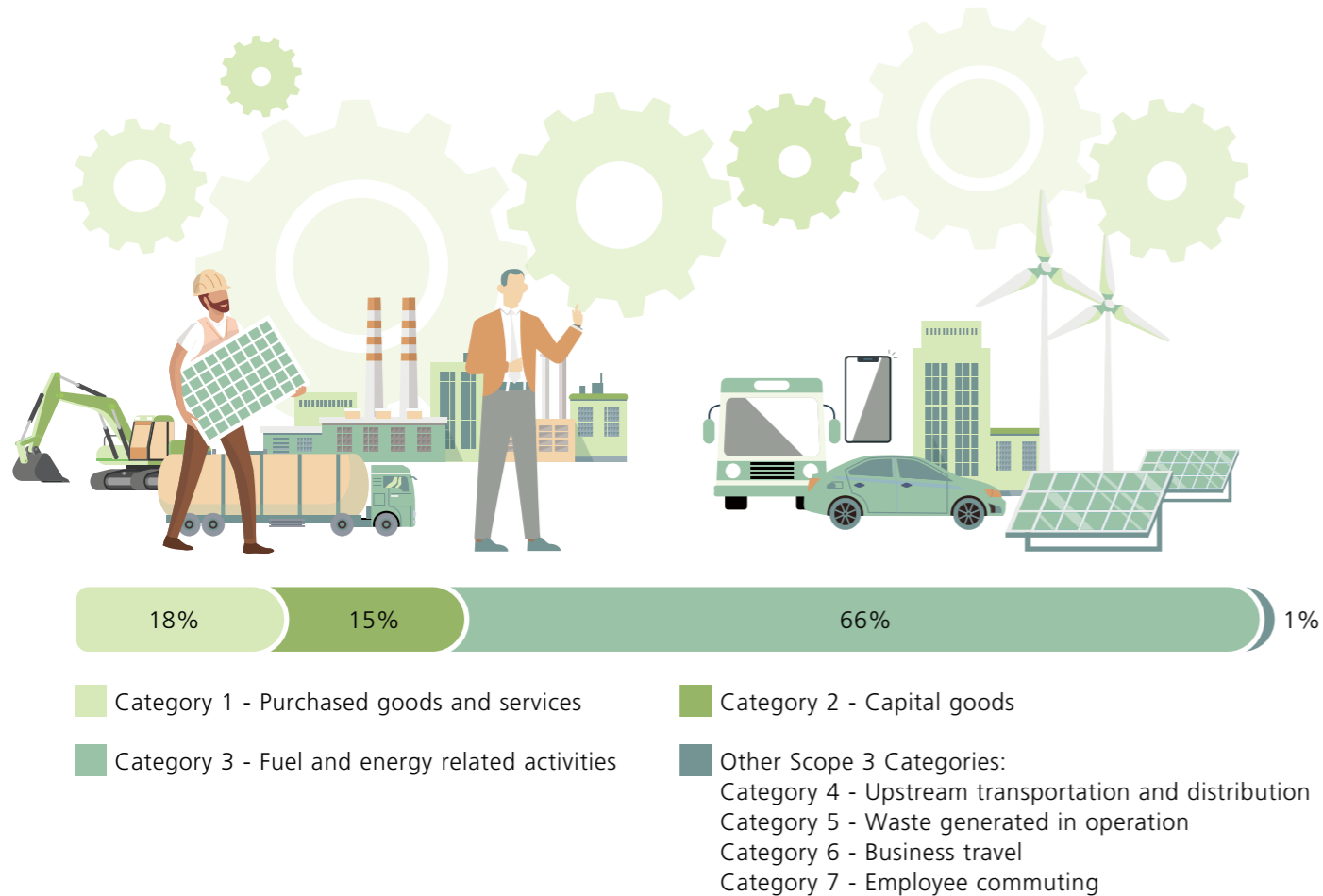


In our ongoing journey toward sustainability, the Group is also sharpening its focus on Scope 3 emissions, which are indirect emissions within our value chain. Given the nature of our energy and utility-related businesses, majority of our Scope 3 emissions result from upstream activities, particularly from fuel and energy related activities relating to the production process of the fuels and electricity we consume. Following the momentum

for meeting the ambitious goals set out in the Paris Agreement, many of our business units are addressing emissions across their value chain and endeavouring to achieve Scope 3 targets. In 2023, we have improved our report on Scope 3 emissions. Our estimated Scope 3 emissions from the Group's business operations, which cover a total of 83% of our attributable revenue, were 705,633 tCO₂e.

2 The 2021 and 2022 data figures have been restated to align with the updated approach to allow for meaningful comparison of data over time.
3 Grid emission factors decrease as renewable energy sources increasingly feed into the grid. Consequently, the carbon avoidance achieved by displacing electricity generated from fossil fuel decreases over the years, reflecting a cleaner energy mix of the grid.

Scope 3 Emissions by Categories



Key Initiatives and Targets by Our Business Units

Business Unit	Initiative/Target	Status
SAPN	Achieve net zero Scope 3 (value chain) greenhouse emissions by 2050	On track
	Work with suppliers to reduce supply chain carbon emissions (Scope 3) by 25% by 2028, compared to a 2018/19 baseline	On track
UKPN	Achieve carbon negative business operations and net zero Scope 3 emissions by 2050	On track
		On track

Recognising the immateriality and the limited control we have over the downstream activities of the energy products we sell, which includes electricity and gas, our present efforts concentrate mainly on upstream activities, such as purchased goods and services, capital goods, and fuel and energy related activities, where we can exercise greater influence. As we improve our data collection and expand our reporting, we aim to progressively cover a wider array of Scope 3 emissions. This will not only enhance the transparency and accountability of our reporting but also guide our efforts in driving down emissions throughout our entire value chain, thereby contributing to the global effort to mitigate climate change.

Commitments and Actions

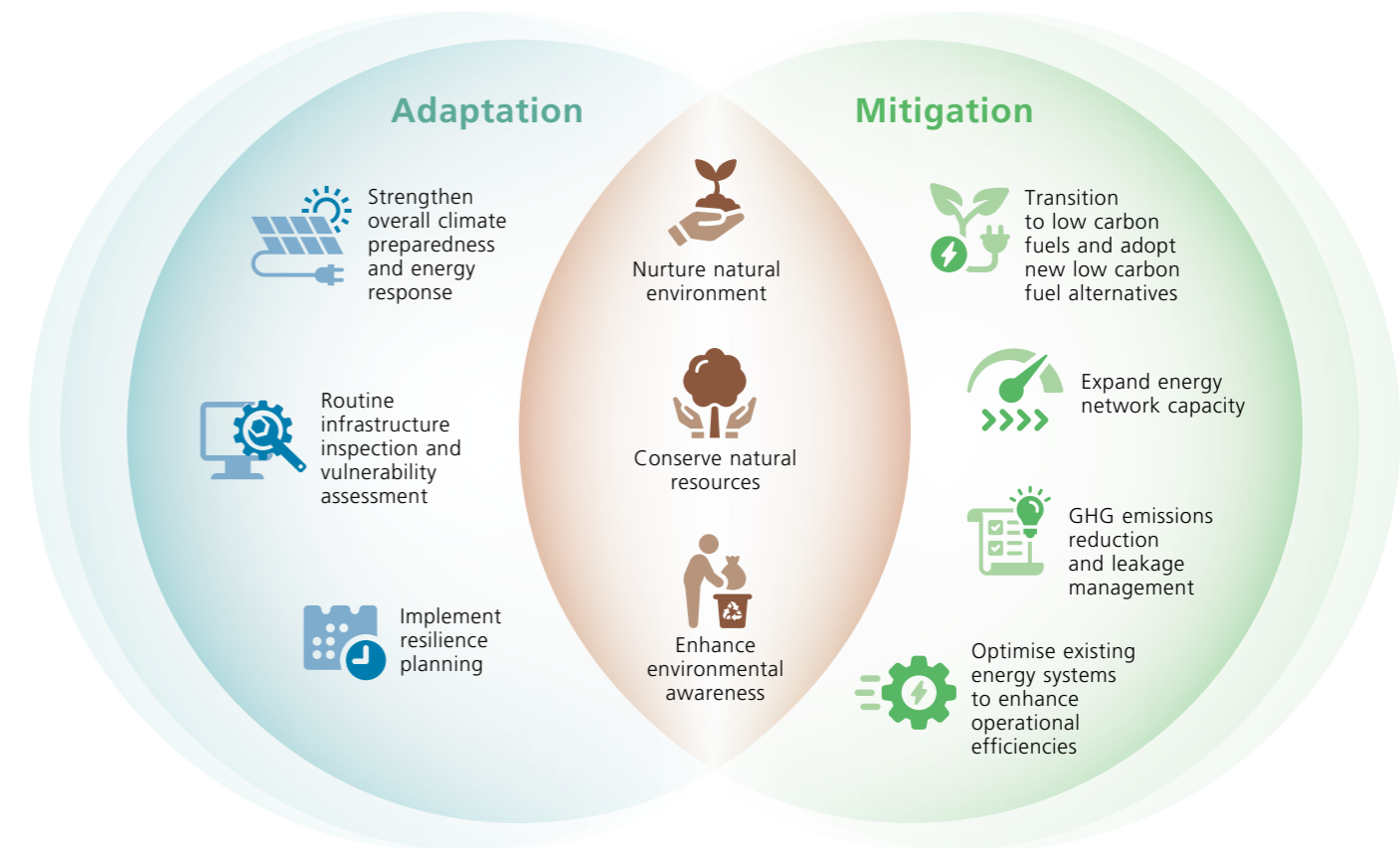
The Group understands the extent to which climate change threatens the well-being of people and the environment. We firmly believe that a resilient environment and vibrant communities are foundational to business success.

Our mitigation strategies include decarbonising our energy generation portfolio, advancing methane reduction and recovery, and optimising operational efficiency. Moreover, we are committed to expanding our business segments that are crucial to our core objectives, such as deploying smart energy solutions, increasing our renewable energy capacity, and exploring hydrogen as an energy source.

Complementing these efforts, we actively pursue carbon avoidance initiatives, including renewable and energy-from-waste projects, that displace electricity typically generated from fossil fuels, as well as projects that harness by-product gases such as landfill and waste coal mine gas, which would otherwise be released to the atmosphere or flared. In 2023, these activities enabled the Group to avoid 910,542 tCO₂e of emissions.

Adaptation efforts are also integral to our strategy, focusing on strengthening overall climate preparedness and enhancing our energy systems' response to climatic shifts. This involves routine infrastructure inspections, vulnerability assessments, and robust resilience planning to anticipate and withstand climate-related impacts. Furthermore, strategies such as implementing biodiversity management plans, improving water use efficiency, and minimising waste footprint emerge as intertwined areas between adaptation and mitigation.

By enhancing our climate resilience, we not only safeguard our operations against climate-induced disruptions but also ensure the continuity and adaptability of our business model. Integrating resilience into our strategy enables us to maintain operational integrity and fulfil our environmental commitments amidst a changing climate landscape.



Enhancing Climate Resilience

As the frequency and intensity of climate-related events increase, it is imperative for the Group to develop strategic approaches that enhance resilience and ensure continuity of operations. By proactively integrating adaptive strategies across our business units, we are committed to safeguarding our assets, infrastructure, and more importantly, human

capital against the unpredictable impacts of climate change. We have demonstrated our ability to operate a sound and reliable electricity transmission and distribution system with the System Average Interruption Duration Index (SAIDI) of 0.05 and 0.71 in 2023 for transmission and distribution respectively.

OCEANIA

VPN – Implementing Proactive Flood Response

In response to the severe flash flooding around Melbourne’s Maribyrnong River and extending regions, VPN took decisive action to protect its energy infrastructure and maintain service to customers. The company’s emergency measures included building of levees and temporary barriers, real time water level monitoring and de-energisation triggers to prevent widespread damage. These interventions, combined with the swift deployment of mobile generators and network reconfiguration, were effective in minimising disruptions.

Recognising the importance of community support during such crises, VPN also deployed its Mobile Engagement and Response Vehicle (MERV) to provide direct assistance and communication to those in evacuation centres. In the aftermath, VPN has also invested in the construction of permanent levees capable of withstanding 1:200 year flood levels at vulnerable substations, demonstrating a commitment to strengthening infrastructure resilience. This strategic approach emphasises not only immediate response but also long-term adaptation to protect against future climate-related challenges.



MERV at the Bendigo relief centre where evacuees from the Rochester flooding were provided with customer support and comfort.



SAPN – Management of Bushfire

Bushfires pose a critical threat to lives, property and ecological communities in South Australia. SAPN strives to minimise the risk and severity of fire events through conducting regular inspections and pre-bushfire patrols. The company has completed all inspections in the 2022/23 cycle to pre-emptively identify asset defects with a high probability of failure and fire-starting. It has also completed all pre-bushfire patrols, totalling 49,800 km of network, before bushfire seasons in all operating regions.

The last three years of La Nina weather conditions resulted in significant vegetation growth, and SAPN’s vegetation management programme was required to trim vegetation on 70,911 spans of powerline across South Australian before the commencement of the bushfire danger season.

Bushfire represents such a significant safety and reliability risk to our workers, communities and infrastructure, the SAPN undertakes an extremely comprehensive range of bushfire risk preparation, mitigation, response and adaptation activities.

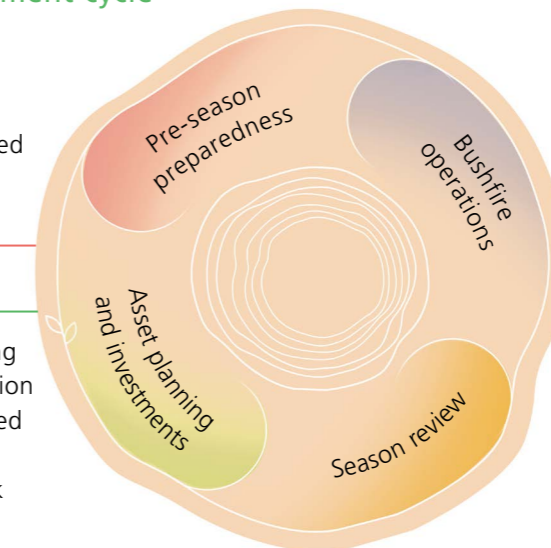


SAPN plans ahead to reduce bushfire risk and ensure the safety and reliability of the network for the community.

Bushfire risk management cycle

- Pre-Summer asset patrols
- Vegetation clearance
- Fire start defects remediated
- Desk-top exercises
- Mandatory training

- Sophisticated risk modelling
- Design and material selection
- Deployment of higher-speed protection
- Replacement of higher risk assets



- Weather monitoring
- Collaboration with emergency services
- Fire danger protection settings
- Customer communications
- Public safety power shut-off

- Key learnings
- Improvement actions
- Refinement of processes and prioritisation of investments

Governance: Bushfire Risk Management Committee

Collaboration and communication: energy industry, emergency services, government, universities and customers

OCEANIA

AGIG – Building Resilience through Adaption and Mitigation

Erosion management is vital in preventing and controlling erosion to land that covers and protects their underground assets. AGIG’s Aerial Surveillance Lands team are tasked with monitoring the land cover of their assets and reporting any potential risks, areas of erosion or repairs required. Any identified erosion is remediated by the mainline civil crew, following engagement with key stakeholders to ensure all needs are considered.

During 2023, AGN completed a 20-year programme to replace old cast iron mains in the Victoria network with modern high performance materials. This improved the reliability of gas delivery, reduced emissions (via the leakage of gas) and ensures that the network is hydrogen-ready to adapt and mitigate climate risk. In total, approximately 1,500 km of mains have been replaced from the old cast iron material to a more reliable polyethylene material since 2003.



AGN’s Mains Replacement Programme has the added benefit of achieving emissions reductions in the near term and ensures our network is ready for hydrogen in the future.

ASIA

HK Electric – Implementing Anti-Flooding to Tackle Flooding Risk

Following the Typhoon Mangkhut incident in 2018 and the record-breaking rainfall in 2023, HK Electric has undertaken a rigorous analysis of wave overtopping risks at 17 strategic locations housing our power generation and transmission assets, including Lamma Power Station and its Extension, shoreline areas near transmission and distribution substations, and key transmission cable structures. With technical findings from the study, HK Electric has been implementing enhancement measures to prevent asset damage due to flooding, such as revising Design Guidelines for New Generation and Transmission Facilities, conducting regular drills with employees, contractors and customers, installing anti-flooding systems and enhancing flood walls.

In the coming years, HK Electric plans to retrofit substations within the areas of potential storm surge impacts identified by the Civil Engineering and Development Department (CEDD) of the HKSAR Government with flooding alarms and bund walls in 2 phases that spans from 2024 to 2026.

EUROPE

UKPN – Protecting Against Floods as Climate Resilience Strategy

UKPN has been working with members of the Energy Networks Association (ENA) to assess the impact of climate change projections on the electricity network. Through a series of workshops with the Met Office, the national meteorological service for the UK, and other ENA members, they have identified and prioritised the weather and climate related hazards which need consideration both now and into the future. The detailed impact of these hazards on our networks and information as to the prevalence of the hazard in the current climate and the future RCP8.5 climate have been described as an output of this work.

Eight climate change hazards have been prioritised from this work. The principal work from these studies has been flood prevention work. The principal action arising as a result of these studies is flood prevention work. UKPN have installed permanent flood protection at 78 sites over the RIIO-ED1 business plan period and plans a similar number over RIIO-ED2. In addition, temporary flood protection equipment is available to deploy in emergencies. Current wood pole overhead line designs have been reviewed following Storm Arwen happened in 2021, which are considered adequate for future climate conditions.



Permanent flood barriers protect the site against the prospect of a 1-in-1,000 year flood of the River Wandle.

NGN – Safeguarding Pipeline Integrity Against Climate Change

In a proactive move to safeguard critical infrastructure against the escalating threats of climate change, NGN conducted a routine inspection of a high-pressure pipeline traversing Black Burn in Cumbria. The inspection revealed that riverbed erosion had uncovered a section of the pipeline, posing a significant risk to its structural integrity. Understanding the risks associated with this exposure, NGN promptly commissioned a specialist assessment and installed a ramped rock weir composed of boulders and cobbles over the pipeline. In addition to providing durable protection against further erosion, the installation of rock weir had also taken into consideration of the local ecology to minimise disruption to the natural river flow and maintaining the aesthetic quality of the environment.



NGN engineers carry out gas mains replacement work to reinforce resilience.

Driving Energy Transition Through the Shift to Clean Energy

The Group is steadfast in its commitment to combat climate change, driving renewable energy and green hydrogen initiatives across all business units. By investing resources and fostering innovation, we are reducing our reliance on fossil fuels and advancing a sustainable energy future. In South Australia, we are currently blending 10% of green hydrogen into the existing natural gas network to actively reduce

carbon emissions. While in UK, NGN has an active portfolio of innovation projects to support the net zero transition, including trialling the blending of hydrogen (up to 20% by volume) with natural gas to 670 customers in their region (HyDeploy22) and establishing the safety case for the use of 100% hydrogen as an affordable and sustainable alternative to natural gas (H21).

ASIA

HK Electric – Shifting Towards a Low Carbon Fuel Mix

HK Electric is switching from coal to gas. Four coal-fired units, L1, L2, L3 and L4 were decommissioned between 2017 and January 2024, resulting to an increase of 56% gas-fired power of HK Electric’s total power output in 2023. Following the commissioning of two new gas-fired units, L11 and L12 in 2022 and early 2024 respectively, the gas-fired generation ratio is expected to increase further to around 70%.

In 2022, HK Electric updated the company’s carbon reduction target and committed to reducing Scope 1 GHG emissions by 68.4% per kWh of electricity generated by 2035, as compared with that of 2019. This mid-term carbon intensity target has been validated and approved by the Science Based Targets initiative (SBTi).



HK Electric, in partnership with the other power company in Hong Kong, commissioned Hong Kong’s first Offshore LNG Terminal in July 2023.



HK Electric actively pursues a decarbonised electricity supply by incentivising the local production of renewable energy. Through the Feed-in Tariff (FiT) Scheme, the company offers private sector customers at premium rates for their renewable energy contributions to the grid, with about 10.8 MW connected since the programme’s inception. Meanwhile, over 29 GWh of zero-carbon electricity generated was subscribed through the purchase of Renewable Energy Certificates (“REC”) since its launch.

In parallel, HK Electric is enhancing its own renewable capacity. Additional solar power system were installed at Lamma Power Station and on other premises of the company, boosting its solar generation capacity to 2.4 MW. Together with the company’s 0.8-MW wind turbine unit on Lamma Island, the total installed capacity of renewable power increased to 3.2 MW as at the end of 2023. Furthermore, a green mobile electricity supply system has been launched, offering a clean and reliable energy source for emergency power relief and as an alternative to diesel generators at major events. The whole system is expected to save around 1,800 tonnes of carbon dioxide emissions in 10 years’ service, equivalent to approximately the carbon dioxide intake of 8,000 trees.

Moreover, HK Electric, in partnership with another power company in Hong Kong, commissioned the territory’s first offshore LNG terminal. The terminal received its first LNG shipment in 2023, which is the world’s largest FSRU vessel with an LNG storage capacity of 263,000 m³. This terminal is crucial to securing the city’s green energy future, including strengthening fuel security and cost competitiveness of fuel supply by creating a new channel to receive natural gas from diverse international markets.



Over 580,000 customers will be involved in the deployment of Smart Meters, allowing them to further optimise their energy use more effectively.

OCEANIA

VPN – Enabling More Large-scale Renewable Connections

VPN has set a target to increase total installed capacity of renewable energy generation on its networks to 4 GW by 2026. They had already increased to 2.6 GW of renewable energy directly connected to the networks as of end 2023, including 988 MW of residential rooftop solar across 23,792 installations.



VPN launches new battery to support more solar in Melbourne's western suburbs

Between March 2022 and April 2023, Beon Energy Solution was engaged to design, construct, and commission the 240 MW Avonlie Solar Farm in southern New South Wales to support the growth of renewable energy. By enabling greater penetration of residential rooftop solar, VPN has unveiled the first neighbourhood battery to be installed on Powercor's distribution network in February, which is located in the rooftop solar hot spot of Tarneit in Melbourne's western suburbs. The 120 kW/360 kWh battery will soak up surplus solar from households during the day and supply approximately 170 homes for up to three hours during peak electricity demand periods, helping Victorians to "be part of the renewable energy revolution".

AGIG – Introducing Renewable Hydrogen Gas into Australia Network

In support of the Australian state and territory ambitions of being net zero carbon by 2050, AGIG is committed to delivering at least 10% renewable gas across its distribution networks by 2030, with a vision of 100% renewable gas by no later than 2050. During the year, AGIG has proactively partnered with governments and industry to deliver renewable hydrogen projects across the country and the value chain.

It has expanded the supply of blended renewable hydrogen in South Australia, increasing from 700 homes to nearly 4,000 homes and businesses in Mitchell Park, Clovelly Park and parts of Marion. This expansion is a significant endorsement of the success of this pioneering project, as it marks two years since it began delivering blended renewable hydrogen to homes in the southern part of Mitchell Park in May 2021, demonstrating the ability of the existing gas network to transport renewable gas to homes and its compatibility with existing gas appliances.



AGIG's HyHome is Australian-first initiative showcasing 100% hydrogen gas appliances.



It received development approval for the Hydrogen Park ("HyP") Gladstone project, which puts Gladstone in progress to become the first gas network in Australia where the entire gas distribution network will supply homes, businesses and industries with a blend of up to 10% (by volume) of renewable gas. The project is now under construction and is expected to blend into the Gladstone gas distribution network in early 2024.



AGIG's HyHome, located at the Dennis Family Homes display centre in Wollert demonstrating future energy use where natural gas is replaced entirely by carbon-free hydrogen.

It has unveiled Australia's first 100% hydrogen-powered home, HyHome, providing a window into future low-carbon energy solutions for Australia. HyHome, with many of its appliances running off hydrogen, demonstrates the future energy use where natural gas is replaced entirely by carbon-free hydrogen. The showcase reflects a critical step in providing customer choice in the energy transition.

It signed an arrangement to power a South Australian government two-year hydrogen bus trial. Commenced in August 2023, the trial's hydrogen fuel cell buses are powered by green hydrogen generated at AGIG's HyP South Australia. The bus trial will carry out over 80,000 customer journeys within the first 12 months and save approximately 90 tonnes of CO₂ emissions per year, at a minimum. CO₂ emissions per year, at a minimum.



The AGIG team attended Central Queensland's largest annual environmental awareness event: EcoFest, sponsored by the Gladstone Regional Council showcasing the featured 3D model of HyP Gladstone, hydrogen production demonstration kit and model hydrogen-fuelled race car.

OCEANIA

Wellington Electricity – Evaluating Electrification Capacity

As the New Zealand Government has pledged through the Zero Carbon Act to reach net zero emissions by 2050, Wellington Electricity is taking steps to support decarbonisation. For instance, it has evaluated the available capacity of the residential low-voltage network. The evaluation helps determine whether the network is ready for the EV uptake and the transitioning of residential water heating from gas to electricity. Meanwhile, Wellington Electricity conducted for its business customers an electrification assessment by engaging with companies that use gas or coal to understand the scale and timing of their future electrification projects. Results showed that an estimated 30 MW of future electric load needs to be installed over the next ten years to fulfil electricity demands.

EUROPE

UKPN – Supporting of Low-carbon Heating at Households

To help UK customers transition away from fossil fuels as fast as possible, UKPN kicked off the NeatHeat project to trial new boiler systems, Zero Emission Boiler (“ZEB”), offering a low emissions solutions for 28 homes across London, the South East and the East of England which may be unable to install a heat pump.

Using the heating systems already present in many UK households, the ZEB charges up when electricity is cheaper or greener, rather than using carbon-intensive solutions such as gas or oil. With a high-density storage core, the ZEB charges up overnight during off-peak, efficiently storing this energy and releasing it whenever the thermostat calls for heat or hot water. Its software will also create a unique heating plan and a charging schedule to enable the most cost-efficient heating for the home.

Customers participating in the trial are anticipated to cut their emissions by 2.5 to 3 tonnes of CO₂ per year. The trial will allow UKPN to understand the charging pattern of the smart boiler and test optimisation mechanisms that will provide flexibility to the local electricity network and use existing infrastructure more smartly.



In NeatHeat, UKPN aims to look into an alternative clean heating solution that ensures no one is left behind in this sustainable transition.

EUROPE

WWU – Enabling Low-carbon Hydrogen Production and Network Development

WWU is investing £400m between 2021 and 2026 in the gas network to support its journey to net zero. By 2035, WWU aims to deliver a net zero ready network to the areas most likely to convert to hydrogen, and to transform its entire network by 2040.

High volumes of low-carbon hydrogen in the gas network are essential to delivering the net zero system for customers. In order to reduce the cost and impact of green hydrogen production, WWU is partnering with a global hydrogen company to produce innovative electrolyser prototypes. The prototypes will allow less pure water, such as rainwater, storm overflow and industrial process wastewater, to be used as feedstock, reducing input costs and widening the potential locations for green hydrogen production.

WWU is developing strategic plans for hydrogen clusters and rollout across the areas it serves. For the South Wales Industrial Cluster, the company’s flagship Hyline Cymru project is seeking to develop a new dedicated hydrogen pipeline which will support decarbonisation of major industry, and open the potential for repurposing the existing gas network for other customers. A feasibility project for the pipeline was undertaken through 2023.

Additionally, WWU has announced a feasibility study to evaluate the capability of existing North Wales infrastructure to transport hydrogen as part of its future network planning strategy. The study will provide a detailed assessment of the infrastructure needed to advance opportunities for hydrogen in Wrexham and Deeside. The project will also explore supply and demand scenarios to understand the extent of hydrogen rollout required in the low-carbon future. It will also develop options for changes to the current method for implementing industrial cost-sharing schemes, which allows customers to share the cost of adopting a hydrogen network and could reduce the cost of rolling out hydrogen for industry.



WWU’s Hyline Cymru could allow industrial customers to move to hydrogen as early as 2030, offering a path for decarbonisation and stimulating the hydrogen economy, in turn both protecting and creating new jobs.

Enhancing Climate Mitigation through Methane Management and Carbon Capture

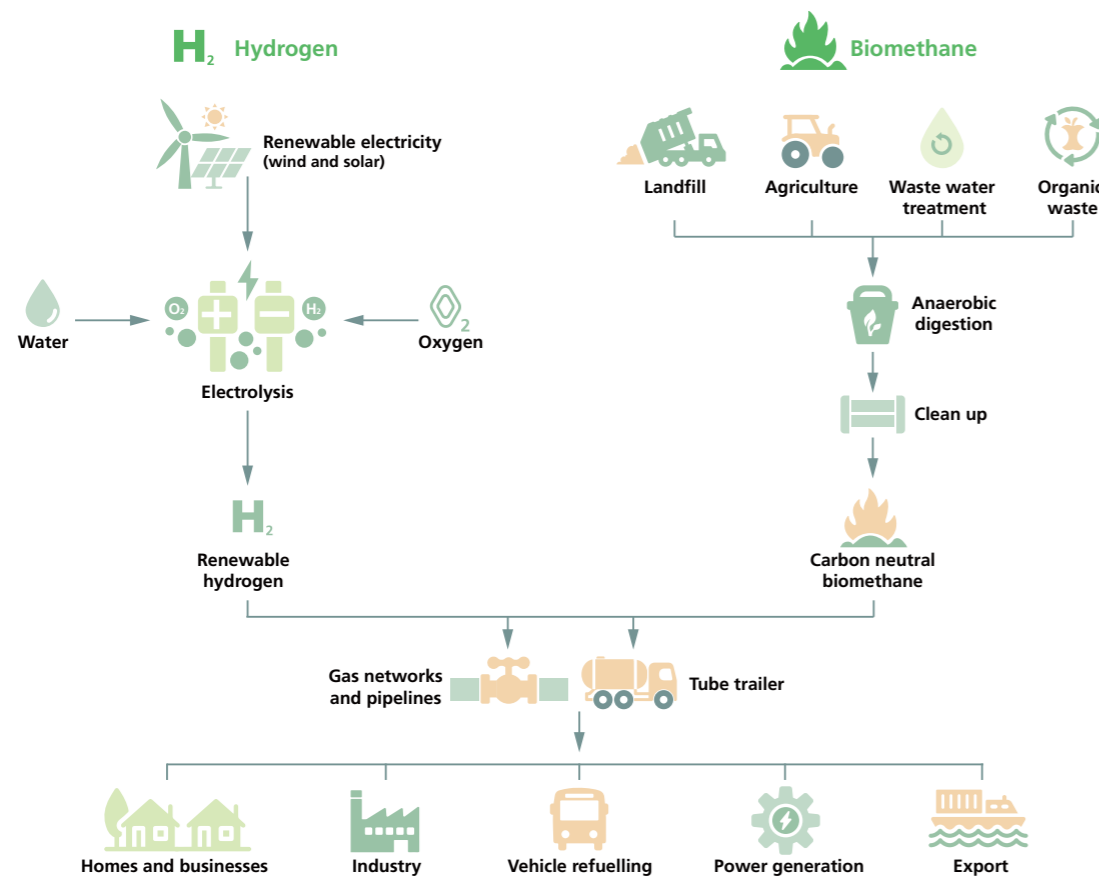
The Group is acutely aware of the immediate impact of methane emissions on climate change and is actively engaged in methane management, aligning with global efforts such as the Global Methane Pledge. Our gas transmission and distribution businesses are at the forefront, implementing detection, leak repair, and infrastructure

enhancement to reduce emissions. Complementing our methane initiatives, we are also advancing carbon capture and storage strategies across various business units, reinforcing our comprehensive commitment to mitigating GHG emissions.

OCEANIA

AGIG – Signatory to the Methane Guiding Principles Partnership

During 2023, AGIG became a signatory to the Methane Guiding Principles (MGP) partnership. The MGP partnership is a global multi-stakeholder partnership that promotes a best practice approach for reducing methane emissions in the natural gas supply chain by sharing learnings and increasing transparency replacing methane reduction.



EDL – Establishing Waste Coal Mine Gas (“WCMG”)-powered Stations and ‘Green Credit’ Revenue

EDL owns and operates a large portfolio of WCMG-powered stations in Australia. WCMG is produced during coal mining as methane gas trapped in coal seams is released. As this product can be a safety hazard and a challenge to mining operations, it is extracted by mine ventilation and coal seam drainage. Historically a waste product that is vented or flared, EDL uses the extracted methane as a power generation fuel to deliver reliable, sustainable, and affordable energy and significantly reduce GHG emissions.

EDL also produces ‘green credits’ – carbon offsets – through operation of a large portfolio of landfill gas, WCMG, renewable energy power stations and renewable natural gas plants in Australia, the UK, and North America. These green credits are traded through local and national carbon markets, monetising EDL’s ability to abate carbon. This activity not only underpins EDL’s commitment to environmentally sound practices but also demonstrates the tangible financial value of sustainable operations.



EDL owns and operates the 64 MW WCMG Moranbah North Power Station, which captures and combusts WCMG and converts it to electricity for the national electricity market.

EUROPE

NGN – Enabling Biomethane and Cutting Methane Leakage

Methane is a predominant component of natural gas and a potent GHG. Its leakage from the network makes up approximately 90% of NGN’s GHG emissions. As custodians of a precious natural resource, NGN continues to carry out its leakage reduction programme to reduce the amount of gas lost, including installing resilient plastic pipes, adopting sophisticated pressure management technology and adding chemicals to the gas to help prevent gas leakage. The company is in progress to meet its target of reducing gas leakage by 24% between 2021 and 2026. By 2023, a 11% gas leakage reduction is recorded compared to the baseline year.

NGN is also committed to enabling low-carbon gas connections, such as biomethane, to its network to support the transition to a flexible, sustainable energy system and facilitate net zero emissions by 2050. This biomethane displaced the requirement for methane-rich natural gas. To deliver on its commitment, NGN provided network capacity assessments to assist developers with project planning and managing the network connection process. As of March 2023, NGN connected 20 biomethane production sites to its network with a maximum production capacity of 17,610 standard cubic metres of gas per hour, equivalent to 1.2% of network gas throughput, enough to heat over 61,000 typical UK homes.

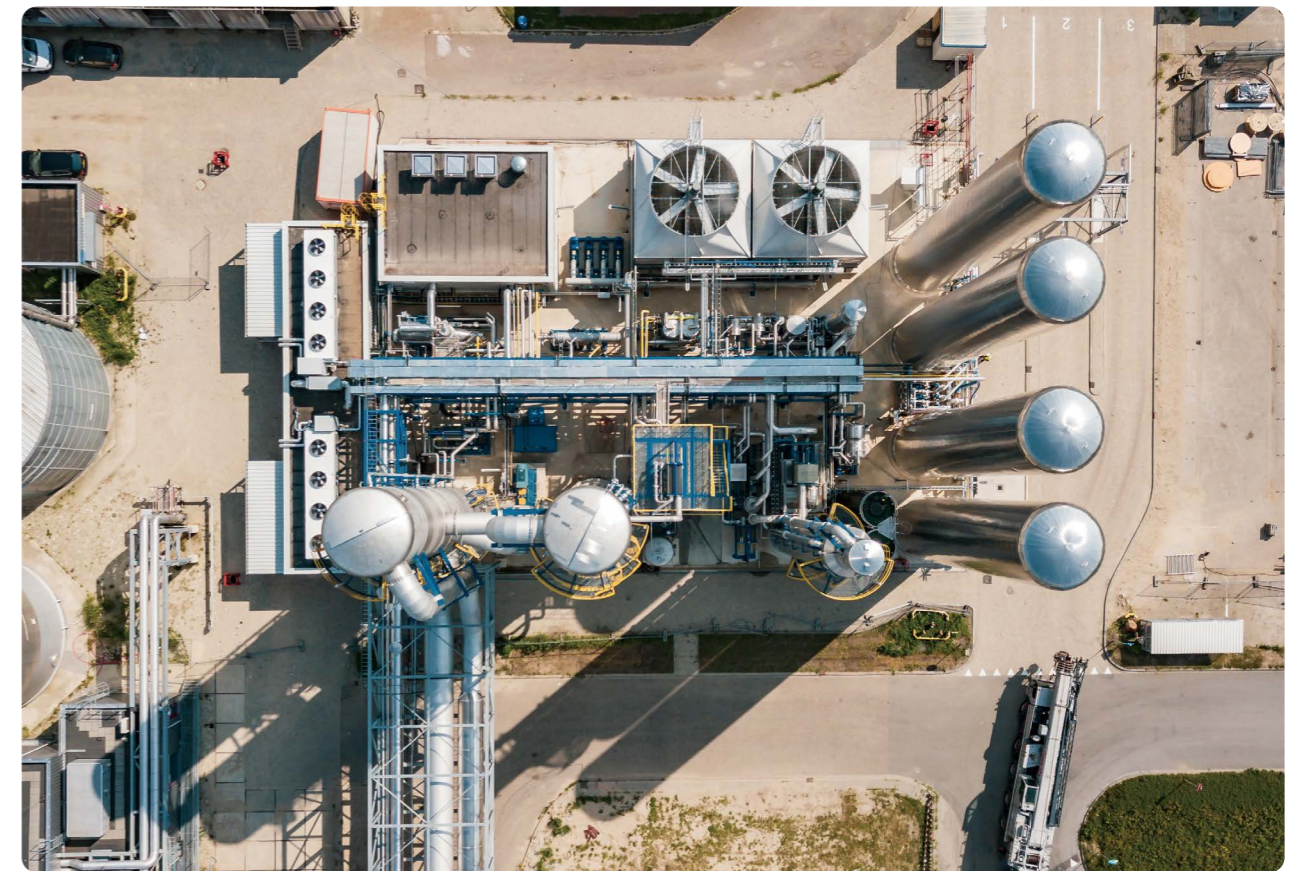


NGN helps biomethane producers get their gas into our grid, through a comprehensive support service.

AVR – Installing New Carbon Capture Facility

AVR is dedicated to maximising the value from waste, including the capture of carbon emissions from the incineration of residual waste. Since August 2019, AVR’s facility in Duiven has utilised an innovative carbon capture system that extracts carbon dioxide (CO₂) from the flue gases of its Waste-to-Energy plant. This captured CO₂ is then supplied to greenhouse growers and various industrial sectors for productive use.

In 2022, AVR secured the stimulation of sustainable energy production and climate transition (SDE++) subsidy from the national government. The subsidy supports the construction of a second CO₂ capture facility at the Duiven site, making the supply of captured CO₂ to greenhouse growers financially viable for 15 years following the project’s completion in 2028, with the new facility’s projected annual capture capacity of 60,000 tonnes of CO₂ to be supplied to the greenhouse horticultural sector from 2028.



AVR captures CO₂ from their processes, which then supply to the greenhouse horticultural sector.

NORTH AMERICA

EDL – Upgrading Landfill Gas-to-Electricity Power Plants into RNG Facilities

EDL is currently commissioning two new RNG facilities in Ohio, USA. These facilities use captured methane – a potent GHG – from landfill waste and convert it into RNG. In 2023, avoided GHG emissions from the RNG produced by EDL’s five RNG plants in the USA was equivalent to the emissions of over 10,000 cars. The RNG produced can be utilised as a clean fuel for vehicles, for residential heating, or to generate electricity. Committed to a carbon-neutral future, EDL supports customers in achieving their decarbonisation goals by boosting the supply of RNG.



EDL converts methane to RNG at the Limestone facility near Youngstown, Ohio, USA.

Building Resilient Energy Systems and Modernising Electricity Network

Transitioning to a cleaner and more sustainable energy future is a strategic imperative for the Group, necessitating an intensified focus on innovation and digitalisation to maximise the utilisation of energy resources. At the business units level, strategic investments in innovative

technologies and processes are prioritised to enhance operational efficiency. This includes the integration of digital solutions, the adoption of best practices in energy use, and equipment upgrades. The cumulative effect leads to resilient energy systems, offering enhanced service quality and sustainability for all stakeholders involved.

ASIA

Jinwan – Battery Energy Storage Project

The project which consists of 16 MW/8 MWh battery and 4 MW/0.67 MWh supercapacitor has been put into commercial operation since 1 Nov 2023. Supercapacitors are a type of an electrochemical energy storage systems which have great power density and specific capacitance. These systems have the ability to efficiently release energy with a high density over a relatively short time. The project assists the main generation unit (600 MW) in load-following response to power grid frequency modulation. The combination of “battery + supercapacitor” has greatly increased the response speed which enables grid to maintain the operation frequency at 50 Hz.



The Battery energy storage project plays a key role in maintaining a stable, reliable and good quality grid power.

OCEANIA

VPN – Energy Efficiency Installation at Brooklyn Depot

VPN completed the large-scale 1.25 MW solar panel system installation at its depot in Brooklyn in 2023 to significantly reduce electricity consumption and GHG emissions at the new location. The depot is fitted with energy-efficient fixtures, including LED lighting, battery storage connecting to the solar installations and future-proofing for EV charging facilities for anticipated growth in EV fleet requirements.



VPN’s installation of solar panel system to enhance energy efficiency.

OCEANIA

SAPN – Developing a New Dynamic Operating Envelope (DOE)

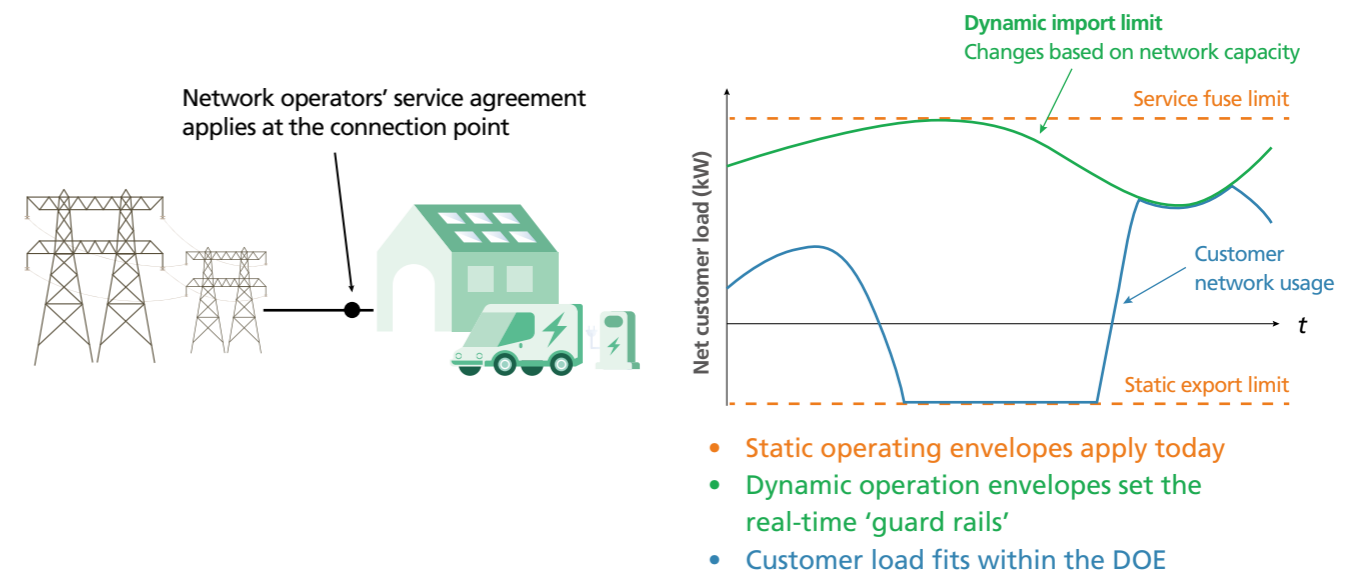
SAPN has released its Draft Regulatory Proposal for the 2025-2030 period, detailing plans to complete the transformation of its network into a ‘two-way’ system, aiding South Australia’s transition to 100% renewable energy. A key aspect of this proposal is the establishment of new systems to enable demand-side flexibility, progressing from existing work focusing on enabling more exports from rooftop solar systems.

With forecasts indicating continued growth in rooftop solar installations, the company expects reverse power flows to surpass the capacity of its network assets at certain times of the year, especially within the low-voltage network. To reduce the need to curtail exports from customer solar systems and ensure a secure electricity supply for all customers, the company intends to introduce ‘flexible connection’ services for both residential and commercial customers.

The proposal outlines the development of new systems and services to accommodate increased connections of customer loads and generation to the distribution network, such as solar systems, batteries and EVs. These advancements will enable more dynamic balancing of energy import and export, aligning times of peak solar generation with flexible loads such as EVs and hot-water systems. New value for customers will be realised as they utilise low-cost, renewable generation during the day, and respond to market price and network constraints during times of peak demand.



Dynamic Operating Envelopes



In early 2023, Enerven, a subsidiary of SAPN, completed the 1000th install for phase 3 of Tesla’s Virtual Power Plant (VPP) project. As part of the project, Housing SA residents across South Australia have had a Tesla Powerwall and a solar system installed, creating a system that works together to create a single power plant. As a result, the SA VPP provides Housing SA tenants the lowest electricity rate in the State, while also creating higher energy security and grid reliability for the entire community.

What are Virtual Power Plants?

A virtual power plant (VPP) is a network of distributed energy resources – such as homes with solar and battery systems – all working together as a single power plant.

The VPP operator uses WiFi technology and sophisticated software to charge or discharge energy from the batteries within the VPP and trade it on the National Energy Market (NEM).

With many systems working together, small amounts of energy stored in individual home batteries can become large amounts of energy to help support the grid in times of need. VPP aims to reduce prices, enhance grid stability, offers outage protection, improves customers’ visibility of their energy usage, and promotes renewable energy transition.

What are Dynamic Operating Envelopes?

Operating envelopes are the limits that an electricity customer can import and export to the electricity grid. These limits are agreed between networks, customers and the Australian Energy Regulator as part of the customer connection or regulatory process.

Currently, in most cases, operating envelopes are fixed at conservative levels regardless of the network capacity because they are static and need to account for ‘worst-case scenario’ conditions.

Dynamic operating envelopes are where import and export limits can vary over time and location based on local network conditions. Flexible Exports is the first example of a DOE in practice, where customers can get access to a dynamic export limit.



SAPN is going to develop a new ‘dynamic operating envelope’ flexible load connection capabilities for residential and business customers.

EUROPE



UKPN – Supporting Electricity Flexibility as DSO

In May 2023, UKPN launched the nation’s first-ever independent Distribution System Operator (“DSO”) to ensure sufficient electricity capacity across its network and to enable cost-effective adoption of low-carbon technologies like EVs, heat pumps, and renewable energy generation. With electricity demand projected to double by 2050, UKPN recognises the critical need for flexible electrical capacity to help the country meet its net zero targets. Flexible capacity is provided by customers already connected on the network and comes primarily from low carbon sources. The development and support of flexibility markets are expected to save customers more than £400 million in 2023 – 2028 by using demand management to meet new capacity needs instead of constructing new infrastructure.

As part of the DSO, UKPN has launched a series of initiatives to support cost – effective decarbonisation of communities it serves and support national objectives:

- Launched new flexibility products that enable domestic customers to provide flexibility. The product launched jointly with Octopus Energy “Octopus Power Ups” enabled 30,000 households in the UKPN region to provide flexibility to UKPN.
- Focused on supporting the 133 Local Authorities in its region with their local climate ambitions and local energy plans. Over 80% of the local authorities in the UKPN region have declared climate emergencies and UKPN has responded with a new service to ensure the infrastructure is available in a timely manner to meet the local needs.
- Enhanced customer service provision for the fleet of generators and batteries that are connected in UKPN’s network. There are 10 GW of generation now connected on UKPN’s network that supply local and national demand. UKPN has enhanced its Control Room capability to provide services that maximise available network access for generation customers and minimise constraints.

Working closely the National Transmission and System Operator companies, UKPN has been able to develop digital solutions that enable customers that impacted by upstream issues on Transmission networks to connect faster on the network.



UKPN is leading the way as the first Distribution System Operator to respond to industry demands by publishing comprehensive data on curtailment history across its network.

NGN – Boosting Energy Efficiency of Offices, Depots, and Fleets

Since 2015, NGN has been upgrading its offices and depots, relocating or consolidating facilities to decrease the total number of buildings. The refurbishment programme includes energy efficiency enhancements, such as installing energy-efficient lighting with sensors and providing low-energy electrical appliances like monitors and refrigerators. For instance, the redesign of NGN’s main office in Thorpe Park, Leeds, is projected to cut the building’s energy use by 28%.

As part of its aim to have renewable energy systems at all locations by 2026, NGN has evaluated its properties and prepared designs and structural plans for rooftop solar PV installations, with installation bids requested in late 2023.

NGN now procures 100% renewable electricity and is considering switching to 100% green gas for its buildings’ energy needs. From 2018 to 2022/23, carbon emissions from gas and electricity in offices and depots have dropped by 86%.

In terms of transportation, NGN is reducing emissions from its roughly 600 commercial vehicles, all equipped with telematics for monitoring driving patterns to encourage efficient driving. Drivers also receive efficiency training. NGN is testing alternative fuel vehicles, including hydrogen and electric models, to evaluate their suitability. Additionally, the company plans to install EV charging points at all sites by 2026, supporting a transition to 50% of its car and commercial vehicle fleet being ultra-low emission or hybrid vehicles. Carbon emissions from vehicles and business travel have decreased by 12% in 2023 since 2018.



NGN is constantly investing in our workforce and trialling new technology and processes, to keep moving forward.

Enabling the Acceleration of Green Transportations

The global transition to EVs is well underway. In UK, it has committed in law to achieving net zero carbon emissions by 2050 and to banning the sale of new petrol and diesel cars and vans from 2030. In South Australia, we can expect to see 100% of car sales being electric by as early as 2040

according to the South Australian government's Green Paper on the Energy Transition. The Group is working in progress and in plan for the future to support the transition while serving our diverse range of customers, and at the same time to tackle GHG emissions and contribute to cleaner transport.

ASIA

HK Electric – Introducing Green Mobile Emergency Power Supply

HK Electric has introduced a green mobile electricity supply system in replacing the traditional diesel-fuelled generators, to provide customers with reliable and emission-free energy during emergencies. The system, comprising an Energy Storage Truck (EST) and a Power Changeover Truck (PCT), will provide temporary relief when normal power supply is not available. It could also serve as a clean backup power source for large-scale and major events. The system is the first of its kind that combines the usage of power changeover and energy storage to achieve uninterrupted power supply during emergency situations, and also to avoid air and noise pollution during operations, minimising environmental impacts on the surroundings.



The green mobile electricity supply system, comprising an energy storage truck (right) and a power changeover truck (left), provides uninterrupted temporary relief when normal power is not available.

OCEANIA

SAPN – Enabling the EV Transition

With the observed exponential curve in new EV purchases and rapid increase in the installation of public EV charges in South Australia, SAPN began looking to partner with local councils to pursue a trial investigating the viability of Stobie (power) pole charging stations for EVs in 2023. SAPN is continuing to work with the Electric Vehicle Council and through regular Networks and partners to investigate ways to integrate EVs with renewable energy generation and storage, via on-the-ground demonstrations



SAPN's first and new network of rapid EV charger is up and running in the Barossa.

VPN – Implementing a Green Fleet Policy

The Green Fleet Policy, published in 2023, has been a driving force in the company's efforts to reduce GHG emissions while ensuring vehicles are suitable for the business. As part of this policy, VPN plans to update its fleet by replacing diesel vehicles with fully electric and hybrid vehicles. This transition is anticipated to result in an annual emission reduction of 15.6 tCO₂e.

EUROPE



UKPN – Facilitating the EV Transition to Get to Net Zero

UKPN has published their Electric Vehicle Strategy 2023 to keep pace with the growth of EV and ensure all customers can participate in the EV journey.

For on-the-ground work, UKPN is delivering a flexible resourcing model that supports the scaling up of delivery as and when demanded by EVs and other low carbon technologies (LCTs). One of the focuses in RIIO-ED2 will be on increasing visibility of the low voltage (LV) network in particular, where EVs and LCTs primarily connect. This will ensure that UKPN has the capacity and skills to continue to deliver for their customers as demand for LCTs grow.

UKPN is also involved in an innovation project – Shift 2.0, to trial market led flexibility solutions for smart charging. UKPN has been exploring and testing the use of dynamic and location pricing to address secondary peaks, herding behaviour and constraints in respond to the increasing LCT load profiles and conflicting market signals, to develop flexibility procurement that allows customers to shift their charging time according to DNO price signals.

Another flagship innovation project that UKPN has done is Optimise Prime, the world’s largest trial of commercial EVs, aiming to understand and minimise the impact that electrification of commercial vehicles will have on distribution networks. UKPN unites with technology providers, fleet and transport companies to test and implement the best approaches to plan for and promote the EV revolution, while saving cost for network customers.

In parallel, for its light commercial vehicles, UKPN is piloting EVs, with intentions to deploy up to 30 EVs and potentially scaling up to 100 EVs. For the suitable heavy-duty vehicles in their fleet, UKPN is evaluating the use of renewable hydrotreated vegetable oil (HVO) fuel, which could significantly reduce particulate emissions.



UKPN is delivering a network suitable for the EV transition.

NGN – Reducing Emissions with Sustainable Transportations

NGN is reducing emissions from its roughly 600 commercial vehicles, all equipped with telematics for monitoring driving patterns to encourage efficient driving. Drivers also receive efficiency training. NGN is testing alternative fuel vehicles, including hydrogen and electric models, to evaluate their suitability. Additionally, the company plans to install EV charging points at all sites by 2026, supporting a transition to 50% of its car and commercial vehicle fleet being ultra-low emission or hybrid vehicles. Carbon emissions from vehicles and business travel have decreased by 12% in 2023 since 2018.



The transport sector is now starting to embrace hydrogen fuel cells and Northern Gas Networks’ is proud to be one of the first adopters of a Toyota Mirai hydrogen-powered car.

Managing Environmental Impacts and Conserving Resources

Climate change is one of the biggest drivers of biodiversity loss today. At the same time, biodiversity is the greatest natural defence against climate change. According to the United Nations, conserving and restoring natural spaces hold the potential to deliver an estimated one-third of the climate mitigation needed in the next decade. Taking nature for granted may result in a systemic market failure, as the Global Risks Report 2023 highlighted nature loss and the decline in global biodiversity as two of the top ten risks that pose economic risks that can affect businesses.


As highlighted by COP28's Nature, Land Use and Ocean Day where significant financial pledges exceeding HK\$186 million were made to support

climate action with a focus on protecting and restoring natural ecosystems, sustainably managing natural resources and the environment is an indispensable responsibility of all corporations. The COP28 Joint Statement on Climate, Nature and People also signalled a new commitment for countries to coordinate and simultaneously implement their nature and climate plans.

As a global energy investor, we are actively planning to integrate nature-based solutions and channel investments into conservation efforts that contribute to climate mitigation, reflecting the Group's vision for a sustainable and resilient energy future that places a high priority on valuing and preserving biodiversity and natural resources.

2023 Performance Highlights

- Over **78%** of our attributable revenue were covered by ISO 14001 or other EMS certificates 
- **9%** and **20%** reduction in total hazardous and non-hazardous waste produced (vs 2022) 

- **4.8%** reduction in water consumption/waste generation (vs 2022) 

Commitments and Actions

The Group is committed to protecting the environment and biodiversity and supporting sustainable development by conducting our business in an environmentally responsible manner.

We aim to minimise the impact of our operations on the environment while addressing global concern about climate change. We comply fully with all applicable laws and regulations and endeavour to integrate environmental considerations into all aspects of our business operations. 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.

As a player in an essential utility sector in numerous markets around the world, we are also committed to supporting local governments in achieving the goals set by the United Nations Framework Convention on Climate Change.

Environmental Management

Power Assets is implementing an Environmental Management System ("EMS") with the aim of contributing to the 'environmental pillar' of the company's sustainability development. This EMS ensures continual environmental improvement, monitors compliance with relevant laws and regulations, fulfils supply-chain requirements, promotes staff environmental awareness, and increases financial savings resulting from resource saving and cost reduction.

	% of Group's Attributable Revenues ¹ Certified with ISO14001 or Other EMS Certificates	% of Group's Attributable Revenues ¹ that Conducted External Environmental Energy Audits
Total	78%	93%

¹ Percentage of attributable revenue represents the revenue of each business multiplied by the effective interests owned by the Group on see-through basis, divided by the summation of the attributable revenue. This is an illustration of the scale of each business to the Group, and the figures do not represent the consolidated revenue for the Group.

Regulatory Compliance

Compliance with laws and regulations is our utmost priority. We are fully aware that environmental regulatory engagement not only protect our business but also central to assisting the Group in realising our corporate net zero goals in the coming future.

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.

The Group ensures operations in all business units fully comply with applicable laws and regulations, for instance the European Climate Law in Europe and the Climate Change Act 2022 in Australia. We have implemented policies and mechanisms to hold individuals accountable. Our management is dedicated to staying updated on the most recent regulatory changes and providing comprehensive training to relevant staff members. Additionally, we invest significant resources into monitoring and detecting any potential non-compliance to ensure adherence to regulations.



Protecting Biodiversity

The Group firmly commits to biodiversity and habitat protection throughout the lifecycle of our assets. Management oversight of environmental management strategy, including biodiversity issues, land closure and rehabilitation projects, is held by all business units. Most of the managers or committees are responsible for assessing and managing the relevant risks and opportunities. The Group strives to avoid and mitigate adverse impacts on the surrounding environment as we integrate biodiversity into planning considerations. On top of regular environmental impact assessment, we have been engaging with external experts to tailor management plans for high-ecological risk sites. Adopting the net positive impact concept, we endeavour to achieve net gains for biodiversity from our business project outcomes.

To fulfil our commitment to giving back more than what we take from the environment, we require all operations and suppliers to avoid conducting operational activities near sites of globally or nationally-recognised key biodiversity conservation areas, including but not limited to World Heritage areas and International Union for Conservation of Nature (IUCN) Category I-IV protected areas. If any operation site is close to critical biodiversity, we apply the mitigation hierarchy of ‘avoidance, minimisation, restoration and offsetting’ to reduce biodiversity impacts. The Group is also committed to land restoration after site closure and has set aside sufficient funds to support relevant impact mitigation and rehabilitation work.

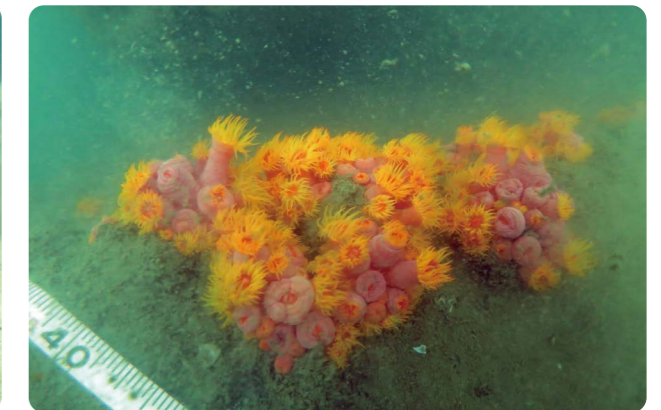
Key Initiatives and Targets by Our Business Units

HK Electric	
<ul style="list-style-type: none"> Plant at least one more species of native trees or shrubs at Lamma Power Station in 2023 to support biodiversity 	Achieved ●●●●
SAPN	
<ul style="list-style-type: none"> Develop an action plan for Nature and Biodiversity Implement a programme to cover up electrical infrastructure that has high risk of impacting native fauna 	On track ●●●●
AGIG	
<ul style="list-style-type: none"> Set biodiversity targets by end of 2025 	On track ●●●●
EDL	
<ul style="list-style-type: none"> Plant of 50,000 additional trees at the UK’s sites undergoing gas field infrastructure modification 	Achieved ●●●●
UKPN	
<ul style="list-style-type: none"> Identify and assess an additional 100 sites for biodiversity enhancement by 2028 	On track ●●●●
NGN	
<ul style="list-style-type: none"> Complete natural capital assessment of up to 50 of its sites by 2025 Create ‘Homes for Nature’ on 250 of its sites by 2026 	On track ●●●●
WWU	
<ul style="list-style-type: none"> Commit to ‘no net loss’ on designated projects and achieving ‘biodiversity net gain’ on impacting work from 2026 	On track ●●●●

ASIA

HK Electric – Coral Survey at Lamma Power Station

In August 2023, an onsite survey was conducted to assess coral species and health in the vicinity of the Lamma Power Station. This initiative forms part of HK Electric’s commitment to environmental sustainability and monitoring the impact of its operations on local ecosystems. The survey, which covered four locations, successfully identified 11 hard coral species and 3 octocoral species. The findings were promising, showing that the coral colonies were in generally good health, with no signs of bleaching or partial mortality. The presence of several moderately sized colonies also suggested positive coral recolonisation and recovery subsequent to the Lamma Extension project. These findings underscore HK Electric’s dedication to environmental conservation demonstrate the company’s commitment to preserving marine biodiversity within its operational footprint.



HK Electric carried out coral survey at Lamma Power Station and found positive coral recolonisation and recovery.

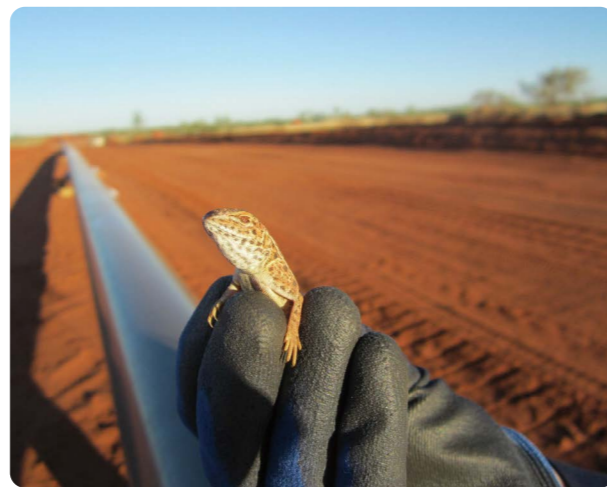


OCEANIA



AGIG – Increasing Focus on Nature and Biodiversity

In 2023, AGIG participated in a pilot programme with the Australian Government’s Department of Climate Change Energy, Environment and Water (DCCEEW) that sought to assist organisations with understanding and implementing the requirements of the Taskforce on Nature-related Financial Disclosures (TNFD). The learnings from this programme will assist AGIG in setting biodiversity targets by the end of 2025.



AGIG reviews their environmental footprint with a view to setting biodiversity targets by 2025 to protect wildlife species.

United Energy – Harmonising Infrastructure Development with the Conservation of Wildlife

Upon discovering a colony of bats residing in the old control building at its Hastings Zone substation, United Energy promptly took action to comply with wildlife protection laws before proceeding with demolition. Recognising the importance of these nocturnal creatures to the ecosystem, United Energy temporarily halted all work to allow for the gentle relocation of the bats to a safe new habitat.

With the bats now securely rehomed and thriving in their new environment, demolition activities at the substation resumed, diligently following all regulatory guidelines to ensure the continued safety of the bat colony and the preservation of the local bat population. This responsible action underscores United Energy’s commitment to environmental stewardship and its dedication to harmonising infrastructure development with the conservation of wildlife.

SAPN – Action Plan for Nature and Biodiversity

In 2023, SAPN sought consultancy support to begin the development of an Action Plan for Nature and Biodiversity. Calculating nature loss is complex and measuring the impacts of activities and solutions is still maturing, so the journey will be a gradual and staged one. A key step in the development process was gaining an understanding of the SAPN business footprint, impacts, dependencies, risks and opportunities with respect to nature. This programme underscores the company’s dedication to biodiversity management and showcases the company’s proactive approach to reducing environmental impact through strategic infrastructure modifications.

EDL – Conservation Partnership

EDL, the Northern Territory Government and Parks Australia have partnered with the Djurrubu Rangers on the ‘Karnabarradj’ Project. This is a new conservation partnership in the environmentally sensitive Jabiru region and the site of the EDL Jabiru Hybrid Renewable Power Station.

The partnership involves critical work to protect 1,000 hectares of endangered black-footed tree-rat habitat through the implementation of a conservation zone management plan and monitoring programme, which includes feral animal and weed control, fine-scale fire management and fauna surveying. It also provides further opportunity to consolidate key threatened species management skills for the Djurrubu Rangers through experience and collaboration with Parks Australia staff.



Members of EDL team explored the ecosystem of Jabiru region surrounding EDL’s Jabiru Hybrid Renewable Power Station in the Northern Territory, Australia with local rangers.

EUROPE



UKPN – Biodiversity Improvement and Management



UKPN has maintained its partnership with nine Wildlife Trusts, informing its Environmental Action Plan to bolster biodiversity in its service areas. The company has assessed the biodiversity of 100 substations, with the goal of improving their scores by 30% through focused enhancements.

Throughout 2022/23, UKPN actively supported conservation efforts, involving the restoration of hedgerows and ponds, the installation of nest boxes, meadow improvements, and the eradication of invasive species at select locations.

In its 2023-2028 business plan, UKPN pledges to evaluate an additional 100 sites for biodiversity enhancements. So far, 70 potential sites have been identified, with 25 undergoing ecological reviews. These assessments, which establish baseline biodiversity scores using DEFRA’s metric, will inform improvement strategies and forecast the expected biodiversity scores after recommendations are implemented.

UKPN has reiterated its commitment to key biodiversity initiatives, including increasing biodiversity potential in new major substation projects, improving biodiversity at existing facilities, and embedding ‘Biodiversity Net Gain’ into its operational practices.



UKPN has committed to identifying a further 100 of their sites for biodiversity enhancement between 2023 and 2028.

NGN – Launching Series of Biodiversity Management Programmes

Homes of Nature

NGN carefully manages the vegetation on its asset sites to ensure it does not pose significant fire risks or hinder safe site access and exit. To help promote biodiversity on site, NGN commits to creating ‘homes for nature’ on 250 of its asset sites by 2026. This can involve installing new habitats or changing vegetation management practices to promote biodiversity. Since 2017, NGN has installed Homes for Nature at 84 sites. Examples include fitting bat and bird boxes, leaving felled timber on site as a shelter where animals may hibernate during the winter months, and not cutting the grass during May to enable the growth of wildflowers to aid pollinators.

Natural Capital Valuation and Ecosystem Services Assessment

In collaboration with a third-party consultant, NGN has conducted an ecosystem services screening assessment for its sites. The ecosystem services have been incorporated into a bespoke natural capital evaluation tool which provides a technical and financial evaluation for services such as biodiversity and aesthetic appreciation of landscapes as well as carbon sequestration, air pollutants removal, and temperature regulation. NGN completed baseline natural capital surveys at 30 of its sites in 2021, with repeat surveys completed at the same sites in 2023 and further surveys scheduled for the same sites in 2025.

Land Remediation and Tree Planting Programme

With approximately 150 sites on the legacy footprint of former coal gas production works, NGN is proactively addressing the challenge of potential ground contamination. The company dedicates £0.5 to £1 million annually to investigate and monitor these sites, ensuring that any significant environmental or human health risks are identified and rectified. When necessary, targeted remediation works are performed to bring the sites up to rigorous environmental compliance standards. This diligent land management practice, with clear annual targets for site assessments and remediations, is transparently communicated in NGN’s Annual Environment Report and to the regulator.

In tandem with these efforts, since 2021 NGN has successfully funded the planting of 23,000 trees in urban areas within its service region, contributing to the air quality, aesthetic and ecological enhancement of urban spaces. The programme is set to gain further momentum with a goal of planting an additional 17,000 trees by 2026. The tree planting programme is a strategic effort to foster sustainable development, improve air quality, and make cities greener and more liveable.



NGN colleagues team up with Durham Wildlife Trust in September 2023, to create a pond for local wildlife at our National Energy Research Village (NERV) site in Gateshead.

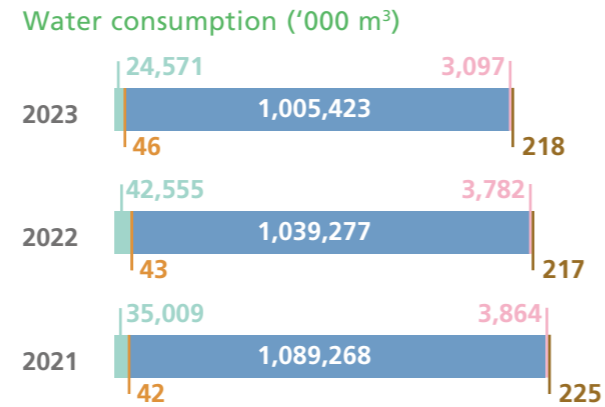
Water Management

Water scarcity is a pressing global issue, with demand for this essential resource increasing on every continent. The Group is dedicated to water stewardship and security, taking a responsible approach to managing this finite resource and identifying associated risks. To ensure a coordinated response, management-level oversight of environmental concerns, including water use, is in place across all business units.

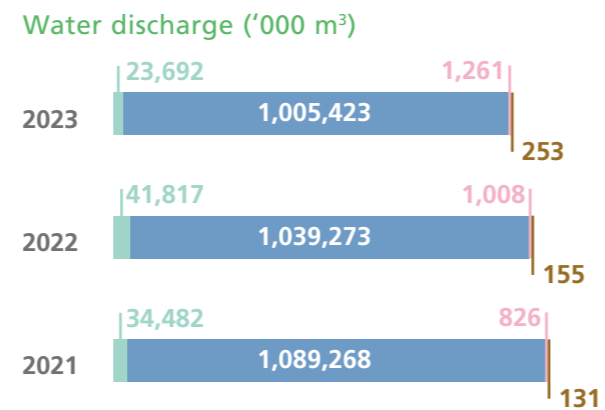
According to the latest Aqueduct tool, a water risk data platform launched by the World Resources Institute (WRI) in August 2023, 25% of the global population faces extremely high water stress each year. While our operations are not currently in water-stressed regions from the relevant Global Water Risk Indicators, we recognise the importance of water stress to our power generation and distribution businesses, including those focusing on green hydrogen projects where a reliable and sustainable water supply is critical.

Commitment and Actions

To proactively manage and address water-related risks such as water availability, water sensitivity and water stress mapping, water scarcity is incorporated as a regular part of our risk assessments and business strategy to enable the development of water conservation plans. We have installed water-efficient fixtures and encourage water-saving practices in our offices to minimise water discharge. Additionally, we actively promote the collection, recycling, and reuse of wastewater and rainwater as a means to reduce freshwater consumption in our operations.



Legend: Surface water (teal), Groundwater (orange), Seawater (blue), Third-party water (pink), Other sources (brown)



Legend: Surface water (teal), Seawater (blue), Third-party water (pink), Other sources (brown)

Key Initiatives and Targets by Our Business Units

Business Unit	Initiative/Target	Status
HK Electric	Reduce total water consumption at its key office premises by 1% in 2025 as compared to 2020	On track
UKPN	Reduce 10-15% water consumption at top 6 depots by 2023 as compared to 2018/19	On track
	Reduce 10% water consumption during the next price control period 2023-2028	On track

ASIA

HK Electric – Reviewing of Water Stress Risk for Lamma Power Station

In 2023, HK Electric conducted a water resources management study for the Lamma Power Station. This study aimed to cast a critical eye over the current water resources management practices and benchmark against industry peers.

The study provides insights and actionable recommendations for HK Electric, and to refine and enhance the company's existing water resource management practices. Complementing this effort, HK Electric will continue to participate in the CDP water security survey, demonstrating its commitment to transparency and improvement in water-related disclosures.

Additionally, as part of its ongoing water resources management practices, HK Electric collected and reused more than 109,000 m³ of plant processing water and rainwater at Lamma Power Station in 2023. It also retrofitted a Brine Recovery Reverse Osmosis system to further enhance wastewater recovery at the power station.

EUROPE

UKPN – Assessing Water Risk Management Strategies

UKPN ensures water reduction technology and water-saving devices, such as push taps, sensor taps, and instant hot water taps, standard items implanted at offices and depots when refurbished. Automated meter readers have been installed at top sites to improve the regularity and accuracy of meter readings.

To ensure thorough oversight, UKPN has also installed Automated Meter Readers at key sites, which enhance the accuracy and frequency of water usage reports. Regular monitoring coupled with these water reduction technologies allows for quick detection and repair of leaks. Additionally, UKPN collaborates with the appropriate water providers to receive constant flow reports, aiding in the prompt identification and resolution of any irregular water usage.



UKPN installs new Automatic Meter Readers to monitor water consumption.

Effluent and Waste Commitment and Action

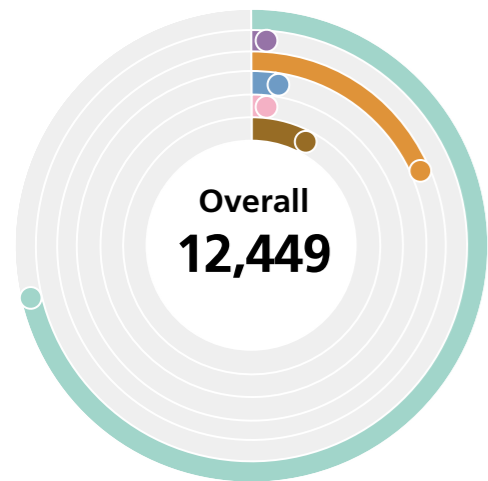
The sound management of effluent and waste is essential to our business operations. We endeavour to minimise waste generation and effluent disposal throughout our operations. To demonstrate our commitment to minimising waste footprint, we set waste reduction and recycling targets wherever feasible and have implemented a waste management plan with responsible and efficient waste handling guidelines.

We also proactively explore potential areas of improvement in existing procedures and processes

by engaging external parties, such as conducting waste mapping exercises to identify waste streams and facilities. Our business units are also adopting principles that emphasise waste reduction, resource reuse, and recycling, with current focus on improving circularity of industrial economy.

As we progress, we will consistently monitor our waste generation and management practices, seeking continuous improvement and exploring innovative solutions to further lessen our impact on the environment.

Total hazardous waste produced (tonne)



- 71%** Other waste management methods
- 1%** Reuse
- 18%** Recycling
- 2%** Incineration (including energy recovery)
- 1%** Incineration (without energy recovery)
- 7%** Landfilling

Total non-hazardous waste produced (tonne)



- 1%** Other waste management methods
- 2%** Reuse
- 96%** Recycling
- 1%** Landfilling

Key Initiatives and Targets by Our Business Units

HK Electric

- Reduce production of ash and gypsum at Lamma Power Station by 37% in 2024 as compared to the baseline figures in 2019 On track
- Reduce total waste generation at its office premises by 10% in 2025 as compared to 2020 On track

SAPN

- Embed circular principles across our activities and our value chain with the goal of becoming a net zero waste organisation by 2050 On track
- 2023 target of 82% of our generated waste diverted from landfill Achieved

AGIG

- Improve monitoring and measurement of waste minimisation, recycle and re-use by end of 2024 On track

UKPN

- Recycle 80% of office, depot, and network waste by 2025 On track
- 99.5% of street works material, with no recoverable waste to landfill by 2028 On track

NGN

- Send less than 0.1% of excavation spoil by mass to landfill annually by 2026 On track
- Reduce amount of office and depot waste created by 20% between 2018 and 2026 On track
- Use no more than 2.5% virgin aggregate annually by 2026 On track

WWU

- Minimise office waste diverted to landfill to 25% by Q2 2024 On track
- Send a maximum of 20% waste to landfill by 2026 compared to 2019 On track

AVR

- Send less than 0.1% of excavation spoil by mass to landfill annually by 2026 On track
- Reduce amount of office and depot waste created by 20% between 2018 and 2026 On track
- Use no more than 2.5% virgin aggregate annually by 2026 On track

OCEANIA

SAPN – Advancing Waste and Recycling Management

SAPN has improved its waste management efforts, achieving a new milestone by increasing its landfill diversion rate from 80% to 88%, meaning that most of the waste generated by the business is recovered, repurposed and recycled. For a business of such scale and complexity, this achievement is not just a reflection of the company’s commitment to environmental stewardship but also a testament to its strategic and effective waste management practices.

VPN – Recycling of Damaged Solar Panels

The task of recycling bi-facial solar panels presents substantial challenges due to their dual layers of glass, considerable size, significant weight, and specialised chemical composition. To address these challenges, VPN engaged with an Australian-based company that specialises in solar panel recycling, ensuring efficient processing, high material recovery rates, and uncontaminated output streams. Over the past two years, approximately 4,500 damaged solar panels from the Avonlie and Sebastopol Solar Farms in New South Wales have been diverted from landfill and processed by this recycling company for proper material recovery and recycling.



VPN recycles damaged solar panels to promote circular economy.

OCEANIA

Wellington Electricity – Waste Education

Wellington Electricity conducted a comprehensive waste minimisation workshop for all employees, detailing strategies to reduce, reuse, and recycle both in the workplace and at home. The session, held in collaboration with Lower Hutt City Council at its Wellington office in July 2023, successfully engaged staff on the environmental benefits of diligent recycling and waste reduction practices.



In addition, the company showcased a segment from the ‘Wasted New Zealand’ series that focuses on recycling, landfill issues, food waste, and wastewater management during the CEO’s presentation in May 2023. Subsequent instalments from the series will be featured in monthly CEO updates to reinforce the waste management education efforts.

Wellington Electricity organises waste minimisation sharing session for all employees.

NORTH AMERICA

EDL – Conducting a Waste-mapping Exercise

In March 2023, EDL launched a waste reduction campaign to minimise the amount of waste sent to landfills globally and reduce carbon footprint. The campaign encourages all EDL personnel to brainstorm waste reduction initiative ideas and then implement them in projects, sites, or offices. Sharing these initiatives also contributes to the cross-pollination of waste reduction ideas across EDL. The campaign includes supporting materials on waste reduction concepts, showcases waste reduction activities across EDL, and encourages participation in the campaign. Initiatives to date have included global PPE recycling, coolant re-usage and non-disposable safety glasses.



EDL has also rolled out a new waste tracking tool across its North American operations, enabling more accurate accounting of waste figures. This tool establishes ways for the North American Environmental Compliance Team to capture waste data that was previously untracked, reflecting its proactive approach to environmental responsibility.

EDL launches a Waste Reduction Campaign to reduce waste disposal to landfills.

EUROPE

UKPN – Waste Mapping Exercise

UKPN undertook a waste mapping exercise to identify various waste streams, the responsible facilities, and the associated waste contractors. This exercise also brought to light potential enhancements to the current waste management practices.

In 2022/23, UKPN generated around 4,000 tonnes of office and depot waste, which has reduced by over 100 tonnes compared to the previous year. Of this, 11.5% of non-recoverable waste ended up in landfills. The remaining (88.5%) were diverted from landfills and were either recycled or used for energy recovery, significantly ahead of its annual waste diversion commitment.



UKPN uses cable ducts made from recycled material to eliminate waste, pollution and drive down carbon emissions.

Air Emissions Control and Reduction Commitment and Action

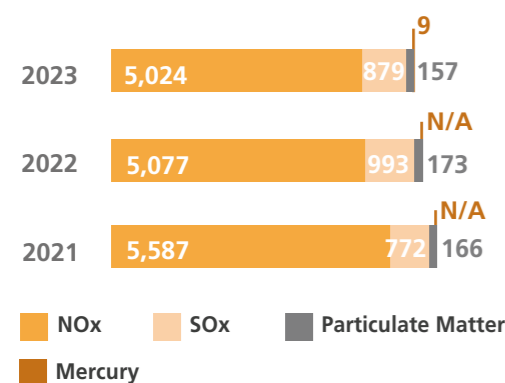
The Group's management approach to air emissions control and reduction is characterised by a commitment to progressive strategies across its diverse business units. In January 2024, the European Parliament reached a legislative agreement to introduce two new regulations to phase down and limit the use of fluorinated GHG (F-gases, including SF₆) and other substances that cause global warming and deplete the ozone layer.

With a clear focus on minimising environmental impact from air emissions, the Group is actively supporting its business units in implementing emission reduction technologies and transitioning to cleaner energy sources. By setting specific air emission reduction targets and investing in advanced emissions control systems, the Group is actively contributing to a healthier environment.

Key Initiatives and Targets by Our Business Units

- | | | |
|--------------------|--|-------------------|
| HK Electric | <ul style="list-style-type: none"> Commission new gas-fired unit L12 in early 2024, which features advanced emissions control technology for reducing nitrogen oxides emissions | On track
●●●●○ |
| UKPN | <ul style="list-style-type: none"> Reduce 33% of NOx emissions between 2023/24 and 2028/29 15% decrease of fluid filled cable leak by 2028 compared to beginning of the period of RIIO-ED2 | On track
●●●●○ |

Air emissions (tonnes)



OCEANIA

SAPN – Greenhouse Gas Emissions Reduction

SAPN is tackling GHG emissions by transitioning its passenger and light commercial vehicle fleet to EVs, a move that will decrease emissions and contribute to cleaner transport. In addition, SAPN is developing an SF₆ life-cycle management plan with the goal of accelerating the phase-out of SF₆ insulated assets across its network.

VPN – Replacing SF₆ Equipment in Plan

VPN is proactively addressing the challenges associated with the use of SF₆. They are actively in the process of identifying and technically evaluating non-SF₆ alternatives. This ensures that they possess technologically suitable options ready for procurement in the future, aiming to minimise the use of SF₆ on the network and SF₆ alternatives, where appropriate, aligns with the evolving regulatory landscape in the future.

EUROPE

UKPN – Minimising Air Pollution by Equipment Upgrade and Fleet Transition

UKPN is charting a course towards a more sustainable electric grid with the introduction of its first 'clean air' Gas Insulated Switchgear (GIS) operating at 132,000 volts. Different from conventional GIS systems that rely on SF₆, UKPN's new GIS is SF₆-free. The system utilises a blend of dehumidified air, consisting of oxygen and nitrogen, which has zero global warming potential. This project is a critical step in UKPN's ambitious plan to reduce the use of SF₆ in new switchgear, extending across all voltage ranges where market alternatives are available. This initiative is also in line with the UK's net zero carbon emissions targets, ensuring that environmental considerations are balanced with the need for maintaining reliable power supplies.

Furthermore, UKPN is actively engaged in minimising the environmental impact of its operations, particularly in regard to emissions from its power generators. The primary sources of NOx and particulate matter within the fleet are vehicles and temporary generators, through the combustion of diesel. Throughout the year, UKPN has initiated trials with hybrid diesel-battery generators, which are capable of substantially reducing emissions when compared to conventional diesel generators.



Social

We are intensifying our efforts to build a prosperous, equitable and environmentally sustainable future. We aim to raise awareness and involvement from our employees, customers, suppliers and communities in addressing ESG issues as a company-wide endeavor. We will embed this mindset into all business functions and incorporate it into our core values.



The Bauhinia, known for its remarkable adaptability to the environment, represents resilience and is Hong Kong's floral emblem.



Supporting a Just Transition

The Group's resilience in the social dimension is a testament to our unwavering commitment to building a sustainable and just future. We actively pursue social development through initiatives that support a Just Transition to a low-carbon economy, champion gender equality, and ensure robust labour management practices. Our approach is comprehensive, tackling the challenges and harnessing the opportunities presented by integrating social considerations into our core business strategies. We also ensure our decarbonisation efforts are in line with the Just Transition principles to recognise its social impacts.

We centre nature, people, lives, and livelihood at the heart of our climate action. Key to our resilience is the strength of our supply chain management, the depth of our customer relationships, the reliability and integrity of our assets, and the security measures that protect them. Our community involvement goes beyond mere presence; we engage, listen, and act in ways that foster mutual growth and understanding. Collectively, these efforts form the bedrock of our social resilience, ensuring that we not only meet but exceed the expectations of our stakeholders in a responsible and sustainable manner.

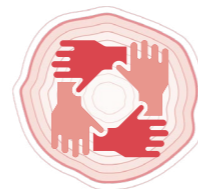
Our Just Transition Plan

Customers Accelerating the low-carbon transition through partnerships
Joining UNGC to promote sustainability and social responsibility



Supporting our community and preventing new inequalities from arising
Creating employment opportunities during the transition

Communities



Employees Securing a safe and decent work and livelihoods for our employees
Fostering culture of Diversity, Equity and Inclusion



Improving awareness of risks of social disruption and climate change through engagement
Promoting regular reporting of our suppliers' Corporate Social Responsibility (CSR) performance

Suppliers



Awards & Recognitions

Diversity, Equity and Inclusion

RPCL

- Happy Workplace Award from Department of Labour Protection Welfare



UKPN

- Re-accredited as platinum level Investors in People



- Best Companies Awards 2023



WWU

- Certification to the new Inclusive Service Kitemark



- WWU accredited as a living wage employer by the Living Wage Foundation

Empowering Employees in the Workplace

Ensuring employee motivation is crucial for the sustained success of the Group's business. Given the extensive scope of our operations, a skilled workforce is essential to deliver our goods and services. Moreover, the rapid growth of the utilities industry has generated a need for IT and data analytics experts who can drive grid modernisation. The potential risks of higher turnover associated with rehiring costs, knowledge loss, and insufficient training and career development pose challenges in attracting and retaining top talent.

According to the International Labour Organisation's (ILO's) World Employment and Social Outlook: Trends 2024 report, labour shortages tend to worsen in sectors with higher gender segregation, highlighting the need to improve inclusivity and diversity. The Group is committed to prioritising diversity and inclusion by organising various initiatives focusing on gender equality, including target setting and action training, aiming to increase women's participation in the utility sectors and foster a more engaged and diverse team.

2023 Performance Highlights

• **48.4** training hours per employee



• **97%** of our full-time employees received training



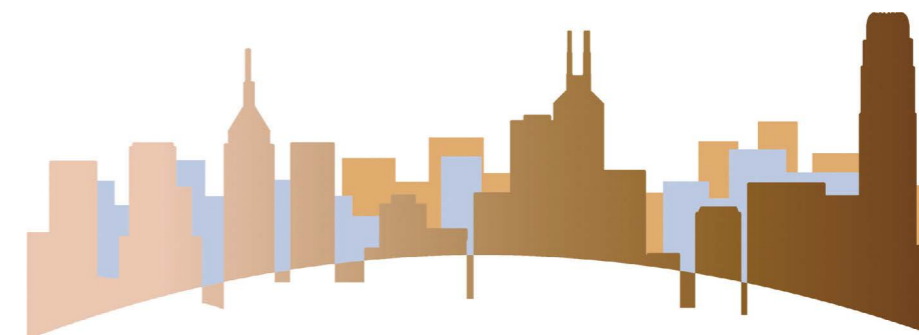
• **88.3%** of our employees were covered by collective bargaining and unionised by 2023 in support of the UNGC



Commitments and Actions

The Group recognises that employees, with their unique skills and experience, play a critical role in the continued success of our business operations. We provide equal employment opportunities and foster a supportive environment that nurtures their personal growth and development. We also instil in our employees the values of candour, courtesy, adaptability to change, and respect for humanity, personal dignity, and privacy.

During the year, the Group joined the Racial Diversity and Inclusion Charter for Employers implemented by the Equal Opportunities Commission. We agreed to promote racial diversity in the workplace and work towards the Charter goals of inclusiveness of policy, culture, and work environment.



我支持 種族多元共融工作間
Racial Diversity & Inclusion in the Workplace



EDL, VPN, United Energy

- Endorsed as employers' choice for women by WORK180



HK Electric

- Partner Employer Award 2023 – Excellent Corporation Award and Existing Employee Retention Award



AGIG

- Recognised by the Diversity Council of Australia as an Inclusive Employer for 2023-2024



Customers and Community

Power Assets

- Caring Company 20 Years Plus



UKPN

- Best Customer Satisfaction Strategy Award

AGN

- AGIG placed 16th in the "Top 40 Best Workplaces to Give Back 2023" up from 23rd place in 2022



In 2023, AGIG staff volunteered more than 670 hours (an increase from 358.5 hours in 2022) and the Community Partnership Programme (CPP) invested more than AUD\$524,600 in charities.

Health and Safety

WWU

- RoSPA President's Award for being awarded the "Gold Standard" for 10 consecutive years

HK Electric

- Joyful @ Healthy Workplace Best Practices Award – Grand Award

Management-driven Policy

As stated in our Sustainability Policy, we are committed to:

Being an equal opportunity employer



Caring for the well-being and health of our employees and aiming to achieve an injury-free workplace



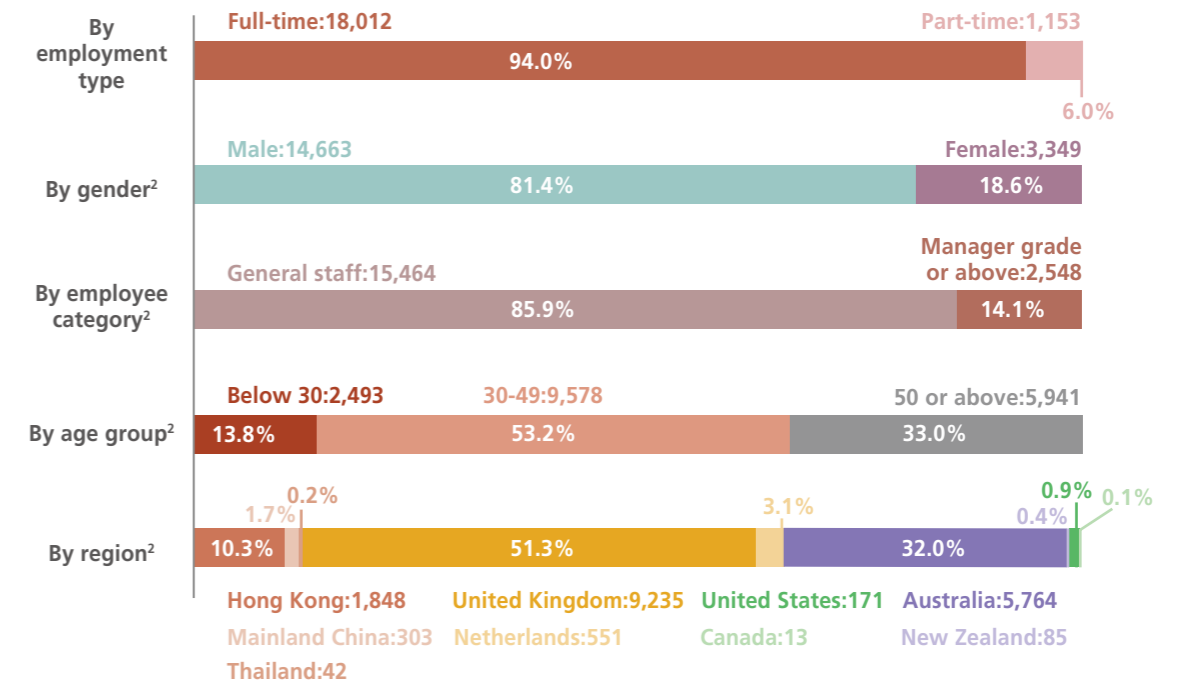
Creating a diverse and inclusive workplace by respecting the values, customs, and traditions of our employees in different operating markets



Assisting staff to develop in an engaged workplace and caring for them and their families



Employee Profile¹



¹ Employees who are directly employed by the Group only.
² Full-time employees only.

Employee Turnover³

	Voluntary ⁴	Involuntary		Voluntary ⁴	Involuntary
Overall	5.7%	1.4%	Below 30	6.6%	1.1%
Male	5.4%	1.4%	30-49	5.2%	0.7%
Female	7.0%	1.5%	50 or above	6.1%	2.6%
United Kingdom	4.5%	0.9%	Australia	6.5%	1.4%
Netherlands	12.2%	1.3%	New Zealand	14.1%	0.0%
Hong Kong	6.5%	4.3%	Canada	0.0%	0.0%
Mainland China	4.0%	0.0%	United States	12.3%	5.3%
Thailand	0.0%	0.0%			

³ Turnover rate refers to full-time employees only, which is calculated based on the employee departure during the year, divided by the average total number of employees as at 31 December 2023.
⁴ Voluntary turnover refers to employees who choose to leave an organisation such as resignation, retirement, early retirement, and etc.

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) we did not identify any incidents relating to the use of child or forced labour.

Nurturing Diversity, Equity, and Inclusion ("DE&I")

The Group recognises the importance of fostering DE&I in the workplace and is committed to creating a work environment that respects and values all our employees' unique perspectives and backgrounds to promote equal opportunities and ensure inclusivity.

To encourage a broader understanding of diversity within our business operations, the Group and business units regularly review topics of DE&I in the ESG committee meetings. The committee acts as a liaison, fostering communication and promoting a deeper understanding of diversity among our workforces.

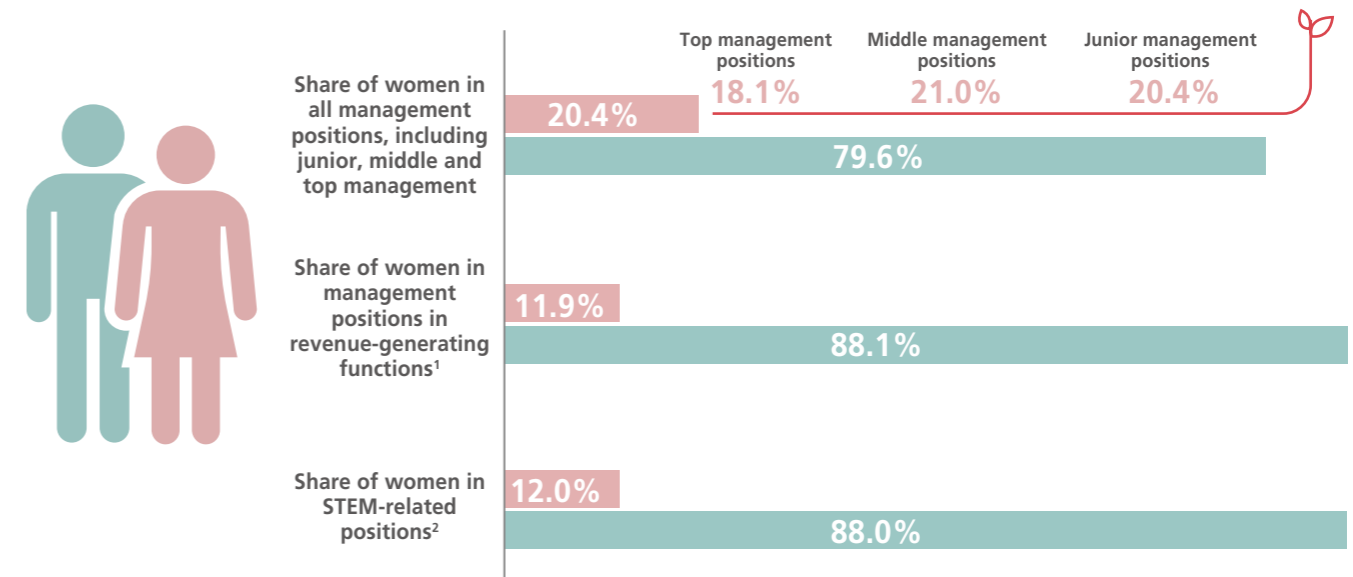
Commitments and Actions

We also strive to offer equal and fair employment and have implemented action plans and conducted gender pay gap analyses in our business operations, ensuring we are making meaningful progress towards our diversity and equal opportunity goals.

Initiatives and Targets by our Business Units

Business Unit	Initiative/Target	Status
VPN	25% female in employment by 2026	On track
	22% female in management roles across workforce by 2026	Achieved
	Achieve 75% for Inclusion and Diveristy index outcomes in Employee Opinion Survey by 2026	Achieved
United Energy	27% female in employment by 2026	Achieved
	15% female in management roles across workforce by 2026	Achieved
	Achieve 75% for Inclusion and Diveristy index outcomes in Employee Opinion Survey by 2026	Achieved
AGIG	40% female representation in workforce by end-2027	On track
	40% female representation in our senior leader's category by end-2030	Achieved
EDL	25% female in employment across workforce	Achieved
Wellington Electricity	Achieve 50:50 gender balance across the business for new employees where possible by 2024	On track
NGN	Gather and report workforce diversity data and produce baseline by 2026	On track

Our Workforce Gender Diversity



¹ Refers to line management roles that contribute directly to the output of products and services.

² Refers to science, technology, engineering and mathematics (STEM) workers that use their knowledge of science, technology, engineering or mathematics in their daily responsibilities.

Promoting Equal and Fair Employment

Our recruitment process adheres to the strictest guidelines on equal opportunity, and we are committed to providing a work environment that is free from all forms of discrimination on the basis of race, ethnicity, sex, religion, age, marriage, and disability. We also enforce anti-discrimination policies to respect and promote diversity and inclusion.

In addition to ensuring equitable employment opportunities, we have implemented a well-structured performance review process and encouraged two-way feedback, in the form of our monitoring performance appraisal, to lay the groundwork for constructive and enduring employee relations. We ensure equal access to training and career development for both men and women. Trainings and career development opportunities are available to women and men at all levels, not just in management/leadership positions.

To foster employee engagement and enhance work performance, the Group prioritises understanding the needs and concerns of our workforce to track and assess areas for improvement. We achieve this by monitoring workers' satisfaction, wellness, and feedback from survey towards our Just Transition progress. Management reviewed the findings and channelled pertinent information to parties concerned for enhancing relevant policies and practices. We continue to establish a culture of well-being by seeking the opinions of our employees and making sure substantial progress has been made on enhancing employees' health conditions and morale.

Fostering Diversity and Equal Opportunities

OCEANIA

AGIG, SAPN, VPN and United Energy – Fostering a More Diverse Workplace

AGN, DBP, and Multinet Gas are revising their Diversity and Inclusion (“D&I”) Action Plan, they committed to undertaking a data collection project to measure their workforce age, gender, pay equity, First Nations people and ethnic diversity. This was completed in 2023 and will inform focus areas for the 2024 Diversity and Inclusion Action Plan. By outlining a series of initiatives and actions that align with the organisation’s D&I Strategy and Policy, the revised plan aims to nurture a workplace environment that embraces greater diversity. AGIG was also recognised by the Diversity Council Australia as an Inclusive Employer for 2023-2024. To be eligible as an Inclusive Employer, organisations must show that they are active and committed to inclusion by achieving results that exceed the Australian National Index Benchmark in at least five of the six measures. 74% of the employees agree or strongly agree that AGIG is inclusive, as compared to the National Index at 66%.

SAPN also launched their 2022-2025 Inclusion and Diversity (I&D) Strategy and Action Plan in 2022. Various activities and initiatives that have been completed and are underway contribute to inclusion at work, including:

- Implementing gender-diverse interview panels
- Incorporating inclusion as a specific topic in our leadership development programmes
- Conducting Field Service Gender Equity workshops
- Designating parent-friendly rooms
- Analysing the internal gender pay gap to ensure inequities are eliminated
- Lodging an inaugural Reconciliation Action Plan with Reconciliation Australia
- Creating a Respect at Work Directive and launching training for all employees
- Collaborating with talent partners and people leaders to create promotional diversity videos in attracting talent
- Celebrating International Women in Engineering Day



Members represent AGIG at The Chamber of Minerals and Energy of Western Australia’s Women in Resources awards night in Perth.



SAPN’s Inclusion and Diversity Team proudly supports initiatives aligned with the “Zero Male Suicide” theme during International Men’s Day.



Throughout the year the business celebrated, recognised and contributed sponsorship to a large number of significant dates and events as part of the inclusion and diversity calendar, covering the breadth of I&D issues including mental health, disability, discrimination, identity/gender, LGBTQI+, culture, and social issues.



SAPN celebrates the International Women in Engineering Day with the theme of “Make Safety Seen”.



The theme of SAPN’s Harmony Week 2023, “Everyone Belongs,” unites employees regardless of their diverse backgrounds, cultures, customs, and experiences.

VPN and United Energy are including LGBTQI+ as a key part of their Inclusion and Diversity Strategy. As part of its new membership with Pride in Diversity, VPN recently hosted an education session for Field Leaders to create a supportive and welcoming culture of the LGBTQI+ community.



VPN’s LGBTQI+ education sessions help employees understand issues and experiences that affect this community.

OCEANIA

VPN and United Energy – Conducting Gender Pay Gap Analysis

VPN and United Energy demonstrate their commitment to gender equality by conducting an annual gender pay gap analysis across their businesses and providing response to the Workplace Gender Equality Agency (WGEA) to examine discrepancies in the compensation of male and female employees in comparable roles. Any anomalies identified are promptly addressed to ensure fair and equitable compensation practices.

Wellington Electricity – Promoting Workplace Gender Diversity

Wellington Electricity prioritises gender diversity in the workplace and is deeply committed to achieving a balanced representation of both genders among its new employees by the first quarter of 2024. In line with this commitment, Wellington Electricity actively collaborates with external recruitment agencies to implement progressive measures to expand the pool of prospective candidates. One such initiative involves utilising employment-focused social media platforms to engage with female-focused groups and forums.

EUROPE

UKPN – Organising International Women in Engineering Day

Leading the charge in gender diversity, UKPN has unveiled new initiatives that empower women in engineering. In partnership with Essex County Council, a Colchester event seeks to ignite young women’s passion for engineering careers. An all-star panel of UKPN’s female engineers will inspire the next generation with their experiences.

Additionally, UKPN launched a female engineers development group to address female engineers’ specific needs and challenges. This group works towards developing strategies and initiatives to ensure personal and professional growth for women in the company. To further demonstrate its commitment, UKPN has extended its maternity

pay and provided its employees with a parental allyship webinar. These efforts demonstrate its dedication to fostering gender diversity and cultivating an inclusive and supportive environment for female employees.



UKPN welcomes more than 60 young women from five different schools for a special International Women’s Day event.

Encouraging Open and Respectful Two-way Communication

OCEANIA

SAPN – Employee Development and Performance Management



SAPN conducts mid-year reviews between employees and leaders.

As culture and workforce are key foundational enablers of the energy transition, SAPN aims to further strengthen the existing “performance culture” through a range of learning, development and performance programme and activities. Performance management is an important aspect of the cultural transformation of SAPN and is critical to ensuring ongoing business success. Annual people performance reviews are an important way they maximise the value of everyone’s contribution and align it to achieve to the corporate vision.

NORTH AMERICA

EDL – Encouraging Open and Respectful Communication

EDL completed its Global Employee Engagement Survey in October 2023 to gather comprehensive feedback from its employees across the organisation. The survey results will offer invaluable feedback to the EDL business and its executive leadership team, highlighting areas of strength and areas that can be improved to enhance employee satisfaction.

Additionally, EDL implemented the Manager Once Removed Conversation initiative, which refers to an employee and their manager’s manager – “skipping” the direct report. This programme aims to create a secure environment that encourages open and honest communication, fostering a trusted and open exchange of ideas between the manager and the subordinates.



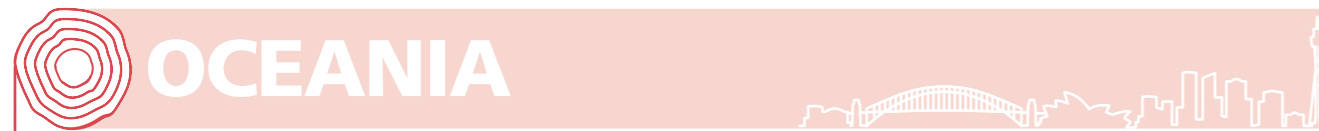
EDL encourages two-way communication between leadership and employees across the organisation.

Recruiting and Retaining Diverse Talent

Attracting and retaining top talent is a key priority for the Group across our business operations. We have steadfastly committed to offering different graduate programmes to attract diverse talent worldwide and providing employee benefits

packages to enhance our workforce's overall compensation. We also engage external service providers with expertise in talent acquisition to broaden our talent pool and streamline the recruitment process.

Nurturing and Sustaining a Diverse Workforce



SAPN – Providing Apprenticeship and Internship Opportunities

SAPN organised the Engineering Vacation Programme, a 12-week paid internship for undergraduates studying for a degree in engineering subjects. The programme allows undergraduates to work alongside experienced professionals across various departments in a safe and supportive environment where they can apply what they learned at university and consider their long-term career options. SAPN's offering was ranked among the 2023 Top 50 Intern Programmes by the Australian Association of Graduate Employers.



SAPN's Engineering Vacation Programme ranks among Australia's best internship opportunities in 2023.

VPN and United Energy – Offering a Diverse Pathway for Talented Individuals

VPN and United Energy have been offering the University Graduate Programme annually, a comprehensive three-year course offering a high level of support, skills, development, and career advancement. During the year, VPN and United Energy successfully recruited thirteen graduates from different majors, such as engineering and information technology.



Students obtain advanced training during the University Graduate Programme offered by VPN and United Energy.



EDL – Enhancing Talent Acquisition Procedure and Brand Image

Throughout the year, EDL enhanced recruitment procedures by engaging WORK180, an external service provider with expertise in talent acquisition and ongoing collaboration. This strategic choice was prompted by the surge in EDL recruitment, temporary resource shortages in 2023, and female employment targets. As a result of the improved recruitment procedures, EDL alleviated the strain on internal resources and achieved the target of 25% female in employment across workforce. As a WORK180 endorsed employer for women, EDL is adopting more inclusive language, providing flexible arrangements, and advertising job openings through WORK180 to create a diverse and equitable workplace.



As a WORK180 endorsed employer, EDL is committed to ensuring all its employees can thrive.

Implementing Employee Well-being Initiatives

Employee well-being is also a priority in the Group. We continued to safeguard the health, safety, and wellness of our employees as part of our core values. This is achieved through a long-term focus on maintaining strong working relationships with

employees and their representatives, providing flexible working arrangements and benefits to support employees through all life stages to strengthen their well-being and resilience.

OCEANIA

VPN and United Energy – Conducting an Employee Opinion Survey

VPN and United Energy have deployed an Employee Opinion Survey to measure employee well-being and mental health satisfaction.

VPN and United Energy have achieved 86% and 83% employee satisfaction in well-being and mental health respectively. In addition, they are endeavouring to achieve 75% employee satisfaction in the areas of well-being and mental health on the Employee Opinion Survey by 2026.

VPN and United Energy have also implemented a Flexible Working Arrangements Policy that fosters a flexible culture and recognises the value of work-life balance. These arrangements encompass a range of options, including flexible working hours, work location, part-time working options, and compressed work weeks to boost employees' wellness.

AGIG – Providing Employee Benefits Package

In December 2023, the Executive Leadership team of AGIG, in collaboration with their People, Safety, and Culture department, implemented an employee benefits package across their organisations. This initiative offered its employees opportunities to maximise their remuneration packages by selecting salary sacrifice options that suited their needs and preferences, such as education courses. It was made available to all employees, ensuring a consistent and inclusive approach to enhancing their overall compensation.

In September 2023, AGIG's staff completed AGIG's annual Employee Engagement and Alignment survey to assess and measure how engaged employees feel in their day-to-day environment. The Survey has been a core employee feedback tool at AGIG since 2017. AGIG achieved a staff participation rate of over 80%, which yielded an engagement result of 61% and alignment outcome of 59%.



AGIG provides an expanded employee benefits package to its employees.

EUROPE

NGN – Fostering Work-life Balance through Flexible Working Policy

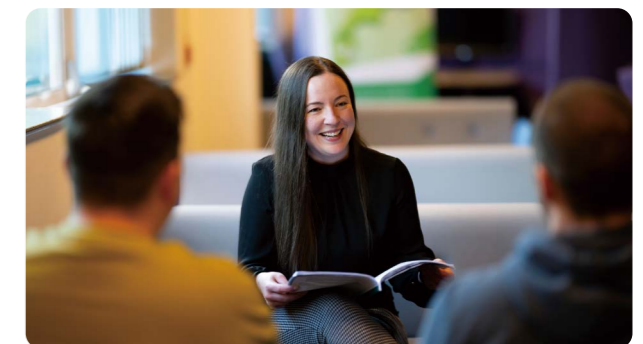
NGN has established several policies to continue promoting a work-life balance within its workforce. For example, its Flexible Working Policy offers alternative working patterns and implements various family friendly initiatives such as maternity and parental leave, allowing employees to apply for additional leave for and absences from work due to emergencies or family commitments.



NGN's family-friendly policies promote employee well-being and a work-life balance.

WWU – Providing Health and Wellness Programmes

WWU places a strong emphasis on its employees' health and wellness through various initiatives. These include the distribution of internal quarterly well-being newsletters and a monthly health focus aligned with the health promotion calendar. Regular refresher training for mental health first aiders ensured its employees stay updated and equipped with the necessary knowledge and skills to effectively support individuals in need of mental health assistance. WWU also established a health surveillance programme and provided rehabilitation services, such as physiotherapy and functional assessments, to address its employees' physical and mental health needs.



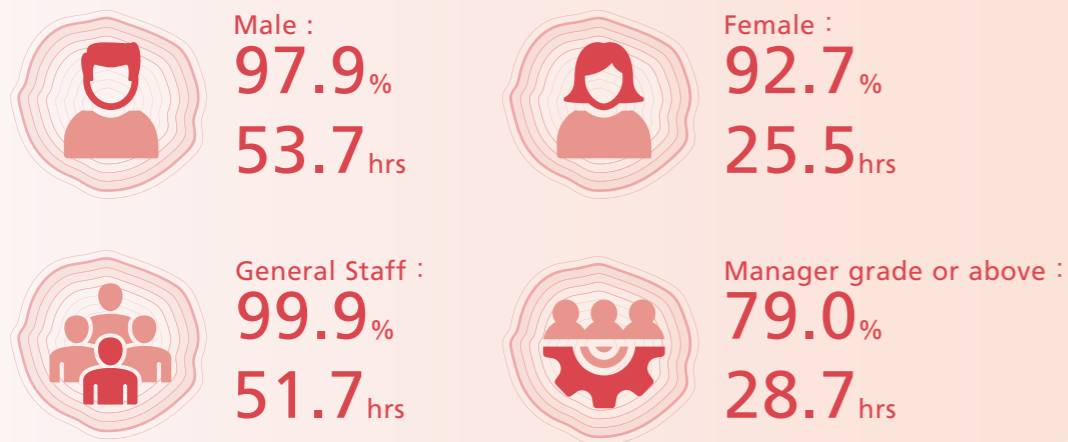
WWU enhances employee's health and wellness through different programmes and initiatives.

Enhancing Talent Learning and Development

We acknowledge that the expertise and competencies of our employees are fundamental to our company's success. The Group regularly assesses and reviews our initiatives for developing human capital to ensure they align with our employees' expectations and requirements while positively impacting the company. Moreover, we make substantial investments in our workforce through comprehensive training and development programmes and mentorship and career advancement opportunities, aiming to cultivate a highly skilled and motivated team.

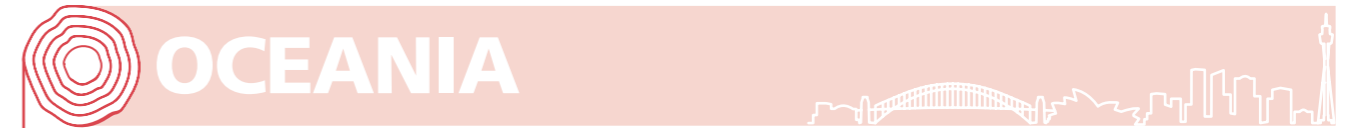
By taking a comprehensive approach to human capital development, we strive to attract the best talent while retaining, retraining, and redeploying our employees with the expertise and capabilities necessary to propel the company's growth in a dynamic and constantly changing environment along our decarbonisation journey towards a Just Transition.

Percentage of employees who received training¹ and average hours of training per employee by gender and by employee category



¹ Full-time staff including terminated employees who left the Company during the reporting period. Percentage of employees who received training = number of employees trained in the category / total workforce of the category at the end of the reporting period x 100%. The percentage of employees trained may exceed 100%.


Fostering a Culture of Continuous Learning



SAPN – Providing Leadership and Management Programme

Fifty employees from SAPN recently completed their Certificate IV or Diploma of Leadership and Management this year. This programme is part of SAPN's ongoing commitment to fostering leadership skills and investing in people's potential. It offers nationally accredited training designed to empower the teams.



 SAPN offers a leadership and management programme for employees to enhance their skills and knowledge.

AGIG – Launching Online Learning Platform

In August 2023, AGIG introduced an online learning platform to provide comprehensive professional and personal development training to their entire workforce. With an extensive catalogue of over 9,000 courses, the platform offers employees unlimited access to enhance and refine their professional skills.



 AGIG provides various development trainings through online learning platform.

Wellington Electricity – Enhancing Employees' Sustainability Awareness

Wellington Electricity implemented an ESG training module for its employees in June 2023. The training module centred on diverse facets of sustainability, aiming to enhance awareness and foster employee comprehension. Participants were educated on the advantages of and actions that can be undertaken to prioritise sustainability. A minimum passing grade of 80% was required to complete the course, and the questions were altered for each subsequent attempt. This approach aimed to enhance the staff's knowledge and awareness of sustainability-related matters.

EUROPE

UKPN – Supporting Colleagues to Obtain Additional Professional Qualifications

Through its Supported Studies programme, UKPN has provided funding for its employees to pursue professional qualifications in areas such as electrical engineering and accounting. It collaborates with external professional qualification providers to ensure its employees access high-quality education and training. The funding is allocated annually, covering courses from September to July. In 2023, it extended its support to 265 new employees, empowering them to participate actively in their educational pursuits and cultivate their skills.



UKPN offers a Supported Studies programme where employees can work towards a qualification to build on existing skills.

NORTH AMERICA

EDL – Investing in Leaders for a Greater Future



Team members from across Australia, North America and the UK have come together over three days to make connections, collaborate and brainstorm ideas at 2023 EDL Global Operations Forum.

EDL worked with an external mentoring provider to organise IGNITE programme, a global training programme focusing on talent development. The programme covers four training sections, including personal coaching on communications, 48 emerging leaders from around the world attending in the past four years. Furthermore, EDL also partnered with an external consultant to organise the Breaking Ground training, which focuses on global frontline leadership development to cover topics such as difficult conversations and behaviour management skills, with the aim of preparing its frontline employees for their future leading roles.

Maintaining a Safe and Healthy Environment for All

Commitment and Actions

The Group is firmly committed to promoting operational health and safety and continually works to improve and monitor the health and safety mechanisms within our business activities. We make every effort to provide our employees, contractors, customers, and other stakeholders with a safe and healthy environment when they are at the Group’s facilities and premises. Our ambition is to achieve zero accidents among our employees and contractors and to provide customers and the public with a safe and reliable supply of energy.

Management-driven Policy

Our top management commitment to health and safety is clearly outlined in the Group’s Health and Safety Policy, which provides the framework and sets out minimum requirements on health and safety that each Group operating company shall adopt, subject always to any applicable legal requirements. As stated in our Health and Safety Policy, we are committed to:

Complying fully with all applicable laws and regulations and integrating health and safety considerations into all aspects of our business activities

Nurturing and supporting a company culture that promotes employee wellness and enhances health and safety awareness among our stakeholders by providing appropriate and timely information and training to identify hazards and manage risks

Adopting and maintaining safety management systems and measures to monitor and manage the health and safety performance of our business and its contractors and suppliers

Ensuring commitment from our stakeholders in all our markets to share the same vision, values, and responsibilities for health and safety and meet the same standards

Initiatives and Targets by our Business Units

UKPN

- Engage with the public on safety issues, focusing on those who are at highest risk of injury from contact with our networks by engaging with 300,000 people per year during ED2 On track

NGN

- Deliver mental health training for all colleagues by 2026 On track
- Launch a Supplier Code of Conduct which embeds sustainability and achieve 80% of supply chain compliance with the code by 2026, and 100% compliance of contracted suppliers by 2030

2023 Performance Highlights

• **0.29**
Lost time injury rate



• **83%**
of employees covered by OHSAS 18001/ISO 45001, ISO 55001



Implementing a Robust Health and Safety Management System and Conducting Health Risk Assessments

The Group adheres to certification standards and legal requirements for health and safety in countries where we operate and has adopted well-established Health and Management Systems to maintain health and safety working conditions beyond mere regulations. Throughout the year, internal and external audit programmes are conducted across

different business units to facilitate continuous improvement and protect our stakeholders from harm. We also leverage Health and Safety Committees to effectively manage and oversee risk assessments for their respective operations, playing a crucial role in monitoring and addressing work-related injury risks.

	2021	2022	2023
Number of lost days due to work injury	1,234	875	1,667
Number of lost time injury incidents	31	34	50
Lost time injury rate	0.19	0.21	0.29



OCEANIA AND NORTH AMERICA



EDL and VPN – Assessing Risk Through Internal and External Audits

During the year, the Global EDL workforce completed internal health and safety audits on its health and management system via desktop research and site-based audits to set minimum requirements for its business operations. Its owned and controlled sites are also subject to several external audits on an annual basis, and the type and frequency of audits depend on the location of the site and the relevant jurisdiction. For example, the Broome Gas Pipeline is subject to the Western Australia Department of Mines Industry Regulation and Safety Annual Audit.

To safeguard the health and safety of its operations, VPN undertakes external audits every six months to certify and monitor compliance with ISO 45001 standards. These external health and safety audits are conducted over a three-year period and cover all aspects of VPN’s business operations to ensure consistency with best practices and legal requirements.



VPN’s health, safety, and environment audit results demonstrate that leadership actively engages with employees on health and safety topics.

Ensuring Safe Working Conditions for Our Contractors

Considering the various sectors within the Group's operation, our employees and contractors are exposed to different health and safety risks that could be mitigated through proper management. We have provided role-specific and safety awareness

training to improve our employees' health and safety knowledge and understanding. The training covers various topics, including emerging health and safety-related trends, occupational health, and emergency rescue.

ASIA

HK Electric – Training in Health and Safety for Employees and Contractors

During the year, HK Electric organised various promotion campaigns and trainings across its operations to promote and enhance health and safety awareness among its employees and contractors. These included the talk, "Safety, my responsibilities! Let's do it together!", the Health & Safety Forum, "Safety, is an Attitude!", for demolition works and fire safety ambassadors. It also participated in the "Life First – Walk The Talk 2023" campaign, introduced by the Construction Industry Council to enhance safety awareness in the construction industry and raise site safety standards.

HK Electric's site supervision training takes place regularly to ensure the highest health and safety standards. This comprehensive programme involves HK Electric's Project Division the organisation. By including contractors in the training, HK Electric ensures that all individuals working on its projects have a deep understanding of and commitment to maintaining the highest standards.



HK Electric's "Life First 2023 – Walk the Talk" campaign provides safety awareness insights to contractors.

OCEANIA

VPN – Providing Industrial Safety Training

VPN provides its employees with the Victorian Electricity Supply Industry (VESI) skills and training, serving as a fundamental component of its well-established safety systems. This training offers in-depth guidance on vital competencies, which helps adherence to work standards and fostering a deeper understanding of contemporary safety practices. For example, it includes specifications for minimum qualifications, competency assessments, and refresher training requirements for accessing the VESI Electrical Networks.

Wellington Electricity – Training Contractors on Safety Practices

Wellington Electricity organised two consecutive contractor safety breakfasts in April, aiming to share health and safety improvements and highlighting the outstanding safety performance of its field contractors. It also provided safety, health, and security bulletins and industry learning to all its contractors and conducted site safety visits to further enhance their health and safety awareness.



Wellington Electricity's safety breakfast enhances contractors' health and safety awareness and outlines areas for improvement.

EUROPE

Seabank Power – Providing Health and Safety Online Courses

Seabank Power's intranet-based training database comprises a comprehensive collection of mandatory health and safety courses. These courses encompass various topics, including standard modules applicable to all employees, such as display screen equipment use, and courses designed for specific individuals, such as working in confined spaces. All employees must complete their assigned courses within the designated calendar year to uphold a productive and healthy workplace.

Serving Our Customers with Excellence

It is important for us to understand our customers' demands, empower the Group to foster robust and long-lasting customer relationships, improve our product quality and achieve or even surpass our service targets. With the emerging customer service

trends, it is essential for the Group to harvest the latest tools and technologies to adapt our customer service and deliver the best customer experience and satisfaction.

2023 Performance Highlights

- No substantiated complaints received concerning breaches of customer privacy
- Conducted different activities and measurements, including privacy impact assessments and customer privacy awareness training, across our business operations



Commitments and Actions

We understand the sensitivity of customer information and acknowledge the need for careful handling. Our employees are required to uphold the confidentiality of all proprietary data they may be exposed to, and they are informed that all customer information should solely be used for legitimate business activities. In addition, our Information Security Policy outlines and communicates the fundamental principles for maintaining information confidentiality, integrity, and availability to be applied across our operations.

We strive to provide quality service and meet or exceed customers' expectations by continually enhancing our services and engaging with customers through communications, campaigns and initiative programmes. We also respond effectively to customer needs and preferences. All escalated cases are studied thoroughly to appropriately resolve the issues customers have raised.

Initiatives and Targets by our Business Units

HK Electric

- Complete at least 200 audits under Smart Power Energy Audit in 2023, particularly for NGOs, schools and SMEs Achieved

UKPN

- Expand the scope and reach of our Priority Services Register (PSR), delivering an overall 30% increase in registrations from the end of RIIO-ED1 in those categories that are most impacted by our service by the end of RIIO-ED2 with a target of 3m households and 600,000 businesses registered On track
- Leaving no one behind - provide information and help 500,000 vulnerable customers over RIIO-ED2 to ensure no one is left behind in the changing energy system, at no cost to customers

NGN

- 10,000 Customer CO awareness visits/surveys by RIIO-2 22/23 On track
- Provide over £1m of regulatory and shareholder funding to support vulnerable customers and communities by 2026

Employee Privacy Training for Customer Data Security

The Group invests significantly in educating our employees on respecting customer privacy and protecting customer information. For example, we offer various training programmes focused on customer privacy awareness and regularly conduct

customer privacy impact assessments throughout our operations. We also actively engage with our customers to understand their needs and gain valuable insights into their areas of concern.

ASIA

HK Electric – Implementing a Privacy Management Programme and Setting Guidelines for a Privacy Impact Assessment

HK Electric has implemented a Privacy Management Programme for personal data privacy. It incorporates various measures, including annual personal data inventory reviews and privacy impact assessments to evaluate the effectiveness of data handling practices and identify areas for improvement.

Furthermore, HK Electric has also established guidelines for the privacy impact assessment, which requires each business unit to identify potential privacy risks associated with its business operations, such as changes to systems, business processes, and personal data-handling policies to ensure appropriate risk mitigation measures are effectively implemented.



HK Electric's Privacy Management Programme comprises robust privacy infrastructure supported by ongoing monitoring and review procedures.

Regularly Communicating Health and Safety Hazardous to Customers

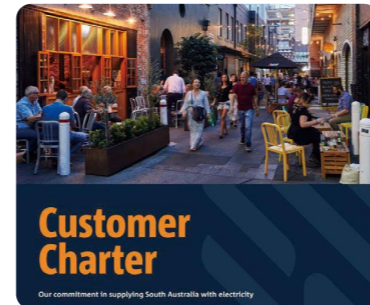
To ensure a safe and secure environment for our customers, we implement various measures to consistently provide them with updated information regarding health, safety, and environmental (HSE) hazards and safety risks associated with our products and services. For example, the Group hosted a two-day Health and Safety Conference in October 2023, bringing together approximately 50 safety professionals from various global business

units. During the conference, we discussed various topics that encompassed the importance of cultivating an effective health and safety culture and implementing a hazard awareness programme, showcasing our commitment to fostering a safe and healthy environment for all. We have also established various emergency plans and report hotlines that adhere to best practices regarding safety management.

OCEANIA

SAPN – Rolling Out Community Media Campaign to Enhance Public Awareness of Electrical Risks and Hazards

During the year, SAPN continuously rolled out a community media campaign under the theme “You’d be shocked by what you don’t know about electricity.” The primary objective of this campaign was to heighten public awareness regarding the potential risks and hazards associated with electricity. It also aimed to educate individuals on the appropriate actions during emergency scenarios.



SAPN published Customer Charter that outlines the commitment in between SAPN and customers.

MGN – Creating Comprehensive Safety Guidelines to Inform and Direct Customers on Gas Safety Executions

To ensure it has a safe and secure electricity network that minimises risk to the community, MGN has taken a proactive step by including a dedicated safety section, “Managing the Network,” on its website. This section illustrates and provides comprehensive information on common potential community safety hazards and offers practical tips to its customers for safety precautions.



MGN prioritises customers’ safety by publishing guidelines to inform and direct customers on gas safety executions.

Customers Engagement

To foster long-term relationships with our customers, the Group is dedicated to delivering exceptional customer experiences. This involves actively engaging with customers to gather feedback and enhance our understanding of their

expectations. We also ensure all employees are trained to acknowledge our customers’ complaints and implement clearly defined procedures to guide them through the complaint handling process.

ASIA

HK Electric – Providing Corporate Instruction on Complaints Management



HK Electric continually engages with customers in an open and transparent manner in line with its Quality Policy, Customer Services Policy and Complaints Handling Policy.

HK Electric implemented a corporate instruction on complaints management in May 2018 to standardise and optimise the handling of customer complaints. This instruction serves as a guiding framework for all its employees and is easily accessible through HK Electric’s internal portal. In 2023, the number of complaints continued to remain low at five, which demonstrated HK Electric’s unwavering commitment to striving for service excellence.

OCEANIA

VPN – Engaging with Customers Via the Largest Outreach to Date

Listening to customers’ views is critical to ensure the delivery of a business plan that meets the needs, expectations, and preferences of those who rely on the electricity distributed by the network. In 2023, VPN held the largest customer engagement programme ever, to inform the development of our 2026-2031 business plan (known as the Regulatory Reset). In 2023 alone, VPN has engaged with over 4,850 customers and stakeholders and held 47 in-person workshops and forums.

In addition, VPN introduced a second dedicated mobile engagement and response vehicle, VERA, which is used to assist local communities during emergencies and prolonged power outages. Together with their MERV, the vehicles provide a personal contact point for customers in emergency situations, where they can get updates, charge electronic devices, use satellite internet connectivity and receive electrical safety or connections advice.



VPN introduces VERA to bring information to communities affected by emergencies.

OCEANIA

AGN – Launching our Priority Services Programme and Updating the Complaint and Dispute Resolution Procedure



In July 2023, AGN launched its Priority Services Programme (PSP) for customers in South Australia and Queensland, delivering additional support to customers on the network who are experiencing vulnerability. A first for Australian network businesses, these new services include gas appliance safety checks, repairs, and replacement rebates.

AGN also updated its Complaint and Dispute Resolution Procedure in August 2023, which outlines how to address “small customer” complaints and disputes to ensure compliance with Australian Standard 10002:2022 Guidelines for complaints management in organisations.

AGN launches its Priority Services Programme to increase its support for network customers experiencing vulnerability.

DBP – Conducting Shipper Forums

In August 2023, DBP held their first Shipper Roundtable in Perth to help shape the plans for the Dampier-to-Bunbury Natural Gas Pipeline (DBNGP) for the five-year Access Arrangement commencing on 1 January 2026. The engagement programme involves active consultation of 26 shippers (transport customers of the DBP), producers, and gas trading agents.



DBP catches up with customers and key stakeholders on DBNGP in Western Australia for a Shipper Roundtable.

OCEANIA

EDL – Fostering Meaningful Interactions with Customers

EDL’s Customer Charter emphasises the significance of engaging with its customers and reflects EDL’s unwavering dedication to providing quality service and innovative solutions that exceed expectations. As part of this commitment, EDL actively collaborates with its customers to understand their inquiries and feedback, ensuring a proactive and responsive approach. The charter encompasses four key commitments, including cultivating collaborative partnerships with its customers to create mutual value, fulfilling promises and commitments, continuously striving for improvement, and proactively addressing customer needs.



EDL organises a site visit for the Oatley Flora and Fauna Conservation Society and customers in Australia.

Ensuring Reliability, Asset Integrity, and Cybersecurity to Protect Customers' Rights

The Group collaborates with external entities to strengthen our cybersecurity risk management by conducting external audits, identifying existing gaps, and driving additional measures to enhance our cybersecurity management framework, recognising its importance in protecting the personal data privacy of customers and stakeholders. We have enhanced our cybersecurity governance, built internal capacity, and improved information protection. As part of the orientation process, all new hires are required to read our information security policy and receive cybersecurity awareness training, and we regularly provide compulsory phishing awareness and refresher trainings to

our current staff to reinforce information security awareness among our employees and contractors.

The Group also has a dedicated Head of IT responsible for establishing and improving our information security culture. The Head of IT ensures the status of information security across the Group, including proper deployment and compliance with the Group's information security policies. We continually monitor our IT systems and networks using advances in cyber security technologies, helping to improve the detection of cybersecurity breaches. In 2023, Power Assets reported no cases of customer data loss.

2023 Performance Highlights

- Worked with external parties to conduct external audits to identify the current gap and implement further actions to improve our cybersecurity management processes



Cybersecurity Risk Control Culture

The Group's Risk Management and Control Committee regularly reviews our cybersecurity risk to ensure that mitigation actions are effectively implemented. This includes updating the cybersecurity policy regularly, enhancing cyber protection measures, conducting penetration tests to identify and address system vulnerabilities, and conducting internal and/or external audits of application systems.

Attacks on the Group's operation systems or physical assets could have dire consequences. It is essential to detect any incursion in real time, every time, and remediate the incident before

harm results. We maintain robust and regularly-tested emergency response and crisis management procedures.

To ensure the effective enforcement of relevant policies and procedures and better protection of our corporate information assets, several of the Group's business units have implemented the ISO 27001 or other information security standards. These standards provide a systematic approach to identify information security risks and guide companies in implementing controls to mitigate and manage those risks.

Implementing Cybersecurity Measures



OCEANIA

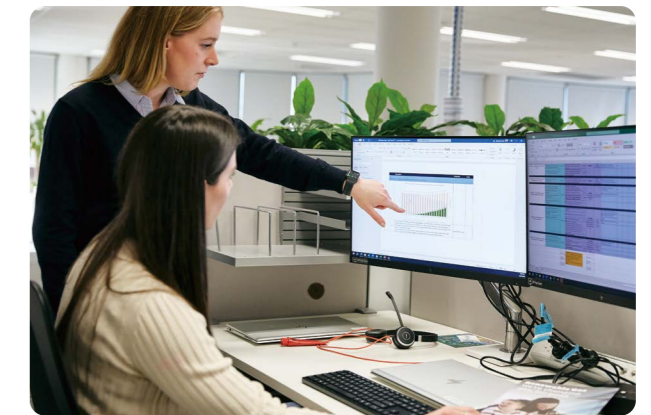


AGIG – Implementing Emergency and Crisis Management Systems

The Cyber Incident Response Team of AGN and Multinet Gas oversees the implementation and monitoring of the emergency and crisis management systems. The systems include an annual schedule of simulation exercises, comprising two national crisis simulations, one for transmission operations and one for network distribution, and ten minor exercises. These exercises test and refine AGN's and Multinet Gas's response capabilities in emergencies or crises, ensuring preparedness and effective coordination across various operational areas.

Following each exercise, a post-exercise report with recommendations for improvement is prepared and assigned to the responsible action owner, who is accountable for implementing them within a designated timeframe. The progress

and completion of these actions are actively tracked within their Audit Risk, Compliance, and Obligations software systems.



AGIG launches its emergency and crisis management systems to monitor cybersecurity risks and incidents.

VPN and United Energy – Testing Cybersecurity Incident Response and Disaster Recovery Plans



VPN and United Energy develop a Cybersecurity Incident Response Plan and Disaster Recovery test to strengthen cybersecurity protections.

VPN and United Energy have implemented a Cybersecurity Incident Response Plan, demonstrating their commitment to enhancing cybersecurity measures within their business operations. This plan provides operational guidelines for effectively identifying and promptly addressing cybersecurity incidents.

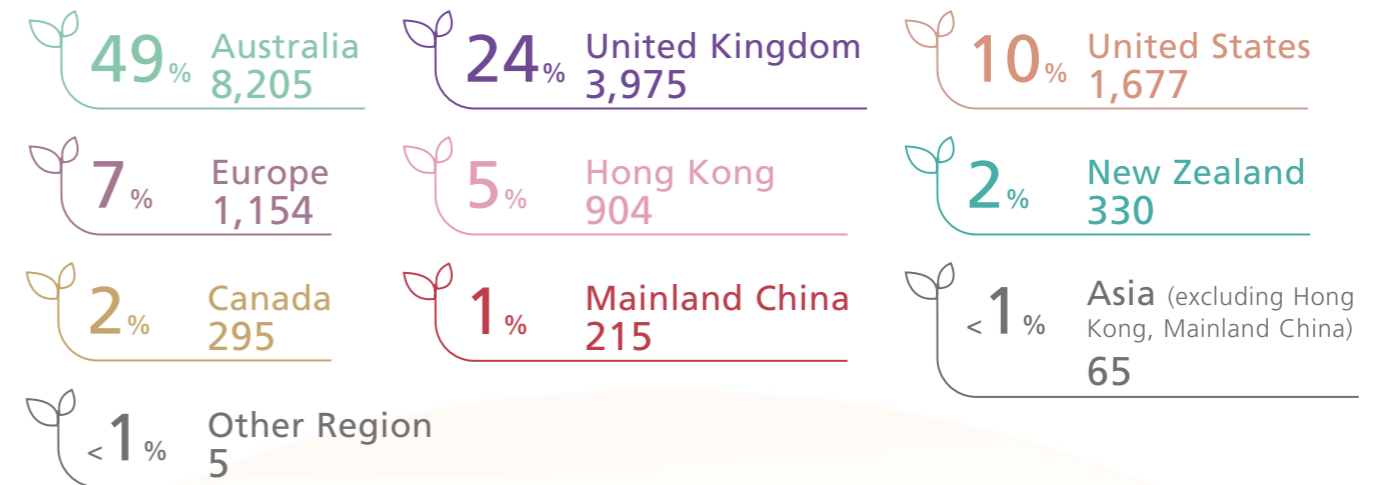
VPN and United Energy also mitigate potential disruptions and ensure the continuity of business operations via Disaster Recovery tests. By regularly evaluating their Disaster Recovery plans, VPN and United Energy can identify any weaknesses or gaps in their systems and processes and make necessary improvements to maintain the integrity of their information assets.

Embedding Sustainability in Our Supply Chain

The Group recognises its role as a worldwide investor that has partnered with over 17,000 suppliers in the energy and utility sectors. We are keenly aware of our influence and consistently leverage our extensive knowledge to encourage our suppliers to adopt more sustainable practices.

It is a necessary requirement for our suppliers to share the Group's commitment to human rights, working conditions, occupational health and safety, non-discrimination, business ethics, and environmental stewardship.

Number of suppliers by geographical region



Strengthening Cybersecurity Capabilities

OCEANIA

SAPN – Implementing a Cybersecurity Awareness Strategy and Delivery Plan



SAPN has implemented a cybersecurity awareness strategy and delivery plan that disseminates at least one article through electronic media channels every fortnight and posts updates quarterly at various sites. All employees also participate in monthly online awareness sessions and phishing tests to enhance their awareness of the critical role they play in preventing cybersecurity threats.

SAPN's cybersecurity analysis has also won the Rising Star of the Year at the national Australian Information Security Association Cyber Security Awards. In addition to this individual award, the team won the Security Operations Superheroes Award at the international Cybersecurity Warrior Awards.

October is Cyber Security Awareness Month in SAPN, aiming to increase awareness in cyber security.

EUROPE

WWU – Conducting Cybersecurity Awareness Training

To foster a strong sense of cybersecurity awareness among its workforce, WWU has implemented mandatory online security awareness training for all employees joining the organisation. WWU also invested in an accredited digital suite of online cyber training and staff awareness courses, officially accredited by the UK National Cyber Security Centre, that are available to all staff members. The primary objective of these initiatives is to enhance staff awareness of cybersecurity risks and equip them with the necessary skills to manage and report such risks effectively.



WWU is committed to modernising energy data and making this available for the benefit of all, both inside and outside of the operation.

Commitments and Actions

Management-driven Policy

The Group's Supplier Code of Conduct stands as a cornerstone of our commitment, serving as a comprehensive guideline for both our business units and suppliers. We encourage compliance with the items in the Supplier Code of Conduct, as it fosters sustainable practices and enhances performance for the benefit of stakeholders and the communities we serve.

The Supplier Code of Conduct applies to all our business units, products and service providers (i.e., suppliers), and we incorporate various international charters and conventions in its development, including the Universal Declaration on Human Rights and the International Labour Organisation Core Conventions.

We have also implemented several other policies that reinforce our commitment to promoting supply chain sustainability, including:

- Human Rights Policy – Highlights the respect and promotion of human rights as a fundamental value of the Group and explains our expectation of operating companies 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 – Requires the Group to ensure its contractors and supply chain are free from modern slavery and human trafficking practices. Transparency in operating companies' 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 impacts arising from how it endeavours to influence suppliers by raising awareness of environmental issues, eco-friendly practices, and professional environmental considerations

Supply Chain Management and Assessment Procedures

The Group acknowledges the potential environmental and social consequences that can arise throughout the supply chain, and is dedicated to mitigating these risks through collaborative efforts with our suppliers. Our controls include establishing emergency escalation protocols to deal with any potential shortage of materials and developing an action plan to handle unstable supply chains in a timely manner. Additionally, we place great importance on maintaining long-term cooperative relationships with our suppliers, further enhancing the reliability of our energy supply.

Regular monitoring, audits, and evaluations are conducted to cultivate valuable partnerships with our suppliers to assess their performance. Our business units have also implemented various approaches of due diligence to ensure the effective implementation of monitoring systems, with nearly all suppliers participating in the assessment process. ESG-related factors are also carefully considered and given significant weight in the assessment process for potential suppliers and contractors.



OCEANIA

SAPN – Mandating the Modern Slavery Questionnaire for Suppliers

During the year, 148 suppliers of SAPN have completed the Modern Slavery Questionnaire provided by the New South Wales Anti-Slavery Commissioner. This comprehensive questionnaire serves as an evaluation tool to assess the level of risk associated with each supplier, considering industry risk, country risk, and the suppliers' responses. As a result, all respondents have been assigned a risk rating in accordance with their respective questionnaire responses.



SAPN determines suppliers' level of risk by mandating completion of the Modern Slavery Questionnaire.

To evaluate the risk of modern slavery within its supply chain, the Procurement and Shared Services team at SAPN downloads the latest reports on a weekly basis. These reports are subsequently utilised to refresh the organisation's internal dashboard, enabling continuous monitoring of suppliers and the corresponding levels of risk that their suppliers may pose.

AGIG – Distributing a Supplier Pre-qualification Business Ethics Questionnaire

Potential suppliers of goods and services to AGIG are required to complete a Supplier Pre-Qualification Business Ethics Questionnaire as part of responding to the tender package. The primary objective of this questionnaire is to establish an initial risk profile, to serve as a basis for determining whether a more comprehensive risk assessment is required for the new supplier on-boarding process.

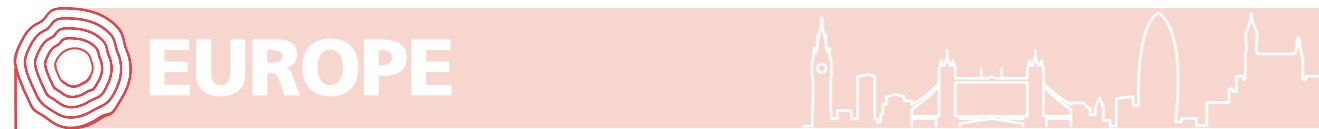


MGN's due diligence includes a risk assessment to ensure supplier awareness of and compliance with modern slavery prevention measures.

Interaction and Communication with Suppliers

In addition to enforcing our Supplier Code of Conduct, we actively communicate with our suppliers to help improve their sustainability performance. Their engagement is of utmost importance, as they are the closest stakeholders in upholding and adhering to these codes, and we believe it helps bring suppliers together to discuss

goals and share best ESG practices in sustainability standard. The Group's operating companies regularly hold meetings to listen to the voices of our suppliers, fostering an environment that encourages sustainable development within the Group.



UKPN – Hosting Contractor Safety Forums

In 2023, UKPN hosted two Contractor Safety Forums (in April and October) for over 100 of our supply chain partners. The primary objective of this forum was to share, learn and collaborate on health and safety matters and re-emphasise the importance of working safely in executing projects within UKPN's business operations. The forum covered discussions on learning from incidents and enabled our suppliers to understand UKPN's current safety performance and gain insights into our future aspirations.



UKPN organises two Contractor Safety Forums for over 100 suppliers.

NGN – Supplier SDG Workshop



NGN shares their People and Planet Journey with their stakeholders during an open day in Newcastle.

In November 2023 NGN held a webinar for our suppliers to raise awareness of the SDG and share how they can demonstrate their support. NGN invited along suppliers making up 80% of our supply chain by spend to share the findings of their research into the level of SDG commitment demonstrated by their major suppliers, using this as an opportunity to share knowledge and give them access to free resources that would help them to demonstrate their commitment.

Fostering Community Involvement in the Energy Transition

As a global energy and utility investor dedicated to constructing a better world, the Group is committed to involving communities in the energy transition. This involvement serves multiple purposes, including raising community awareness and support for the transition, establishing partnerships, and ensuring a fair and inclusive transition.

The concept of "Just Transition" is a whole-of-society approach to decarbonisation that respects human rights while promoting sustainable development. Engaging with communities fosters a sense of ownership and responsibility, leading to

a more successful implementation of the energy transition. The Group is responsible for establishing meaningful relationships with local communities, valuing their perspectives, and advocating for their need to adapt to the impacts of climate change. We have made charitable and other donations during 2023 which amounted to HK\$1 million. This approach ensures that the transition is inclusive and beneficial for all individuals, regardless of their background or circumstances.

By working together with communities, we can collaboratively shape a future that is both sustainable and inclusive for all.

2023 Performance Highlights

- Launched more than **6** initiatives during the year, such as subsidies and concessionary schemes, to promote access to affordable energy



Commitments and Actions

The Group endeavours to safeguard the rights of communities and contribute to their economic and social well-being through regular engagement with diverse stakeholders. Additionally, we find opportunities to support the community and place great importance on actively seeking and valuing feedback from our stakeholders, which serves as a vital element in our decision-making process.



Supporting Internal and External Partnerships towards an Environmentally Sustainable Economy

The ILO's version of Just Transition for all is a systemic and whole of economy approach to sustainability, which aims to address environmental, social, and economic issues together. Given the macroeconomic pressures and the impact of high energy prices, we are concerned about the challenges low-income families facing and their

access to affordable energy alongside the shaping and executing of global energy transition. In response, we have partnered with local charities and organisations across our operational areas to implement various initiatives. These include one-off subsidies, customer support funds, green education, and concessionary tariff schemes to assist our vulnerable customers.

ASIA

HK Electric – Organising Happy Green Campaign

For more than 20 years, HK Electric has been organising the “Happy Green Campaign” to foster public awareness and engagement in energy efficiency, renewable energy, and a low-carbon lifestyle. In 2023, the Campaign reached out to more than 100,000 people. Through various online and offline activities, this campaign educates and motivates local communities to embrace greener practices. The Happy Green Schools network has expanded to include about 650 member schools, who are entitled to joining a range of other learning experiences activities designed for students, from kindergartens to tertiary institutes.



HK Electric's Happy Green Campaign encourages students and the public to adopt low-carbon lifestyle in support of carbon neutrality.

EUROPE

UKPN – Delivering Cost-of-living Fund for Customers in Need

In response to the cost-of-living crisis, UKPN has established the Cost-of-Living Fund, providing £500,000 extra funding to scale up in-depth support. Through extensive research and engagement, it has identified gaps in existing support systems and strives to promote the expansion of its operations, forging new partnerships and introducing innovative assistance. More than double the number of last year's customers have received in-depth support through the vulnerability training provided to UKPN's Executive Team Members.



UKPN responds to the cost-of-living crisis by more than doubling its support for customers and scaling up existing partnerships.

NGN – Empowering Youth Energy Independence through Multifaceted Training Campaign

NGN has launched the “Young People with Energy” programme, aimed at educating and supporting individuals between the ages of 16 and 25 in effectively managing their gas and electric expenditures. The primary objective of this initiative is to empower these young people to lower their electricity costs and reduce carbon emissions by raising their awareness of energy efficiency measures. As a result of this programme, 386 young consumers of NGN have already derived substantial benefits, acquiring valuable insights on energy efficiency that enable them to exercise greater control over their energy consumption and expenses.

In February 2023, NGN hosted its first Young Innovators Council (YIC) meet-up session at Thorpe Park, Leeds. The group of 19 youngsters spent an afternoon learning about innovation at NGN and how the future of gas and engineering might look thanks to AI and robotics. As the future bill-paying generation and workforce, the YIC's views and opinions can help shape NGN's future focus and direction.



NGN hosts its first Young Innovators Council meet-up session at Thorpe Park, Leeds.

Implementing Community Development Programmes and Initiatives

The Group is dedicated to engaging with the communities in which we operate. Our team has consistently prioritised supporting our customers and maintaining strong connections with local communities. To facilitate this, the business units have established community engagement groups to provide platforms for community interaction. Additionally, various activities are organised to raise awareness about the importance of environmental protection.

Furthermore, we encourage our employees to participate in volunteer activities and contribute positively to the community. To facilitate their engagement, we offer a range of volunteer opportunities and, if applicable, provide paid days off each year dedicated explicitly to volunteering work.

ASIA

RPCL – Promoting Community Quality of Life

RPCL prioritises the well-being of the communities it serves, actively supporting local activities and providing swift assistance through various projects and initiatives. To gather public opinions and address concerns, RPCL conducted a comprehensive survey assessing its power plants' image, trust, and satisfaction level among residents within a five-kilometre radius. The survey findings reveal a generally positive-to-moderate level of overall perception, reflecting RPCL's commitment to community engagement and satisfaction. The survey received a response of 97% of satisfaction towards RPCL's Fund, project activities, and safety and environmental management.

RPCL also initiated several education and lifelong learning opportunities for students. It granted a total of 961 scholarships in 2023 and organised basic first-aid training projects for 1,500 students of 27 schools surrounding their operational plant.



RPCL organises basic first aid training project for schools.



RPCL supports students through its scholarship programme.

EUROPE

NGN – Reaching Out through Community Partnering Fund, Customer Support Fund, and Volunteer Days

To support local communities and vulnerable customers, NGN has initiated two funds, the Community Partnering Fund and NGN Customer Support Fund, to tackle issues relating to affordable access to heating.

The Community Partnering Fund allocates up to £10,000 for community groups and grassroots organisations based in North England to provide access to affordable warmth and energy efficiency. The NGN Customer Support Fund committed to £600,000 in 2022/2023 to provide additional support for the cost-of-living crisis in areas including repair/replacement of gas appliances, worsened health due to living in cold/damp homes, and assisted gas connection.

Furthermore, NGN offers its colleagues two entitled volunteer days each year for community-based outreach within its service areas. These dedicated days promote community service and nurture a sense of social responsibility among employees. As a testament to this commitment, NGN colleagues have collectively contributed 640 hours of volunteer work this year, encompassing support for vulnerable populations and environmental conservation efforts.



21 NGN colleagues raise money for the Motor Neurone Disease Association by completing the 25-mile Yorkshire 3 Peaks Challenge.

EUROPE

UKPN – Supporting Communities to Plan for Rolling Power Cuts

UKPN’s engagement with local entities and development of customer-focused tools helped increase preparedness for supply disruptions last winter. UKPN took proactive steps to prepare for potential planned power cuts due to geopolitical pressures. They engaged extensively with local authorities and stakeholders, guiding vulnerable priority-service customers. Through 14 bilateral meetings and regional roadshows, UKPN informed 127 local councils and 12 local resilience forums about outage response. These engagements raised awareness of UKPN’s role in resilience planning. UKPN also developed an interactive map overlaying vulnerable customers, regional areas, and electricity networks to aid community support, achieving an impressive 95.85% satisfaction rate under UKPN’s online services during outages.



UKPN gives customers advance notice for planned power cuts, aiming for at least 48 hours prior to work.

EUROPE

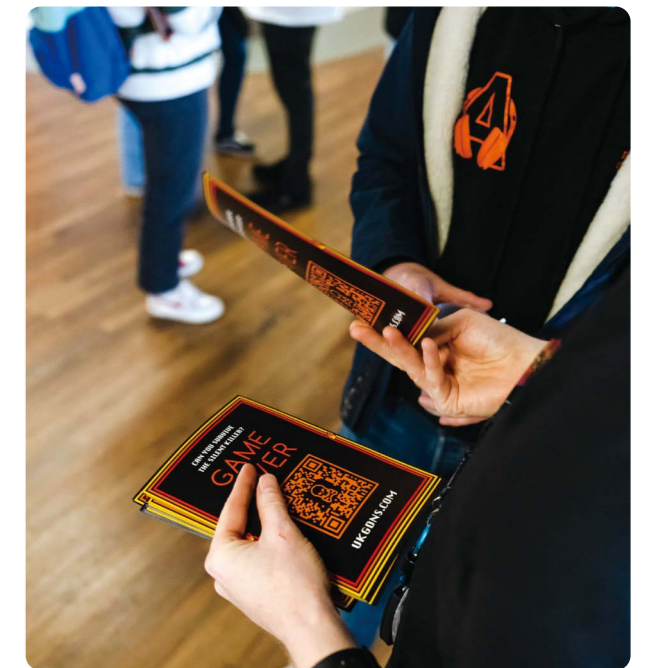
WWU – Reaching Gen Z with the “Game Over” Campaign

WWU’s research revealed that, compared to other age groups, individuals aged 16-24 required increased awareness regarding the significance of carbon monoxide alarms and regular servicing of gas appliances.

To attract the attention of this demographic, WWU expanded its existing “Game Over” awareness campaign, which communicates the risks associated with carbon monoxide, to include a digital component tailored for computer games.

In addition, WWU expanded its outreach to young individuals by forming a student campus ambassador programme that developed a collaborative gas network campaign.

Together, these two efforts increased WWU’s reach with this population; more than 77,000 young individuals viewed the campaign content and engaged with student representatives advocating for gas safety.



WWU and UK’s gas distribution networks’ campaign increases young people’s awareness of the life-threatening dangers of carbon monoxide.



About this Report

Reporting Period

This Sustainability Report provides an overview of the Group's sustainability strategies, management approach, progress, and highlights during the year from 1 January 2023 to 31 December 2023, unless otherwise specified.

Reporting Boundary

The information disclosed in this Sustainability Report covers all the businesses as given in Our Portfolio, including the generation of thermal and renewable power, the transmission of electricity, oil and gas, as well as the distribution of electricity and gas in Hong Kong, the United Kingdom, Australia, New Zealand, Mainland China, Thailand, the Netherlands, Canada, and the United States.

The selected in-scope entities refer to business units over which the Group holds more than a 10% effective interest.

Verification and Endorsement

In line with our commitment to promoting transparency concerning our sustainability impacts and performance and to managing those impacts responsibly, we have commissioned an independent third party to verify the content of this report and assure its credibility. Details of the verification can be found in the Verification Statement. This report has been endorsed by our Sustainability Committee and approved by our Board of Directors (the Board). Please refer to the chapter on Sustainability Governance for information about how the Board oversees the Group's sustainability strategy, management, performance and reporting.

Reporting Framework

Hong Kong Stock Exchange's ESG Guide

This Report is prepared in accordance with the mandatory disclosure requirements and the "comply or explain" provisions of the Environmental, Social and Governance Reporting Guide (ESG Guide) contained in Appendix C2 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 163 to 169 contains information about the extent to which the Group has applied the ESG Guide and cross-references to the relevant section in this Report.

TCFD

The Report also refers to recommendations from the Task Force on Climate-related Financial Disclosures (TCFD). The TCFD Content Index is made available on page 170.

UNGC

Power Assets has been a signatory to the UNGC from April 2022. As a signatory, the Group is committed to aligning its operations and strategies with ten universal principles in the areas of human rights, labour, environment, and anti-corruption. The COP is made available on pages 171 to 172.

This Report should be read in conjunction with the Group's Annual Report 2023, which contains a comprehensive review of its financial performance and corporate governance, and also key policies 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.

These, together with further information about our approach to sustainability, policies, ESG ratings content index, can be found online at www.powerassets.com/en/sustainability.

Reporting Principles

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

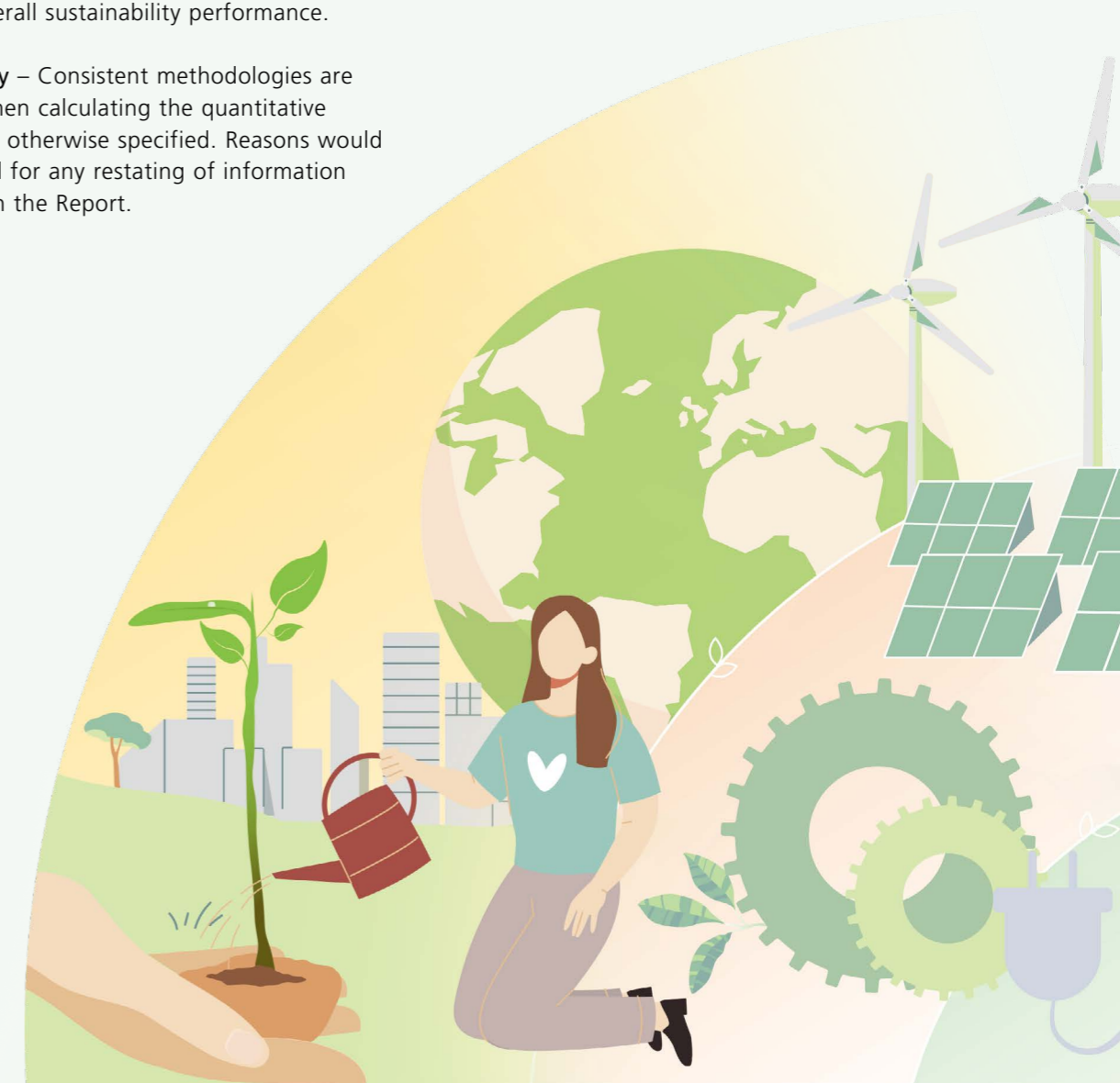
- **Materiality** – We focus on matters that impact business growth and are of importance to our stakeholders. For more information, please refer to "Materiality Assessment" on pages 30 to 32.
- **Quantitative** – Information regarding the standards, methodologies, assumptions, and/or calculation references, and sources of key conversion factors used for these key performance indicators (KPIs) is stated wherever appropriate.
- **Balance** – This Report discloses information in an objective manner, aiming to provide stakeholders with an unbiased picture of the Group's overall sustainability performance.
- **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.

Language

In case of inconsistency or discrepancy between the Chinese and English versions of the Report, the English version shall prevail.

Feedback

The Group welcomes feedback on this Report, its approach to sustainability, and its performance. Please share your views and email us at sr@powerassets.com.



Environmental and Social Performance Indicators

Environmental KPIs ¹	Unit	2021	2022	2023
GHG emissions²				
Total GHG emissions (location-based)	tonne CO ₂ e	7,976,316	7,753,574	7,632,026
Total GHG emissions (market-based)		7,458,619	7,350,865	7,224,818
Scope 1 emission ³		6,981,321	6,942,303	6,875,967
Scope 2 emission (location-based) ⁴		994,995	811,271	756,059
Scope 2 emission (market-based) ⁴		477,298	408,562	348,851
Total carbon intensity (location-based)	tonne CO ₂ e/ HKD \$'000 revenue	0.292	0.289	0.277
Total carbon intensity (market-based)		0.273	0.274	0.262
Scope 1 carbon intensity		0.256	0.259	0.249
Scope 2 carbon intensity (location-based)		0.036	0.030	0.027
Scope 2 carbon intensity (market-based)		0.017	0.015	0.013
Biogenic carbon emissions	tonne CO ₂ e	658,992	588,203	511,509
Use of energy				
Total energy consumption⁵	'000 kWh	17,275,331	17,174,598	17,103,429
Direct energy consumption		16,611,947	16,545,774	16,519,528
i) Non-renewable energy consumed		25,053,562	24,488,187	24,924,237
Gasoline/Petrol		5,329	5,365	5,610
Diesel		211,320	210,616	197,014
Natural gas		9,761,784	9,267,388	9,838,650
Liquified petroleum gas (LPG)		130	119	64
Waste-derived fuels (non-biomass)		1,870,457	1,748,614	1,490,074
Coal		12,422,737	12,428,543	12,559,869
Other fuels ⁶		781,805	827,542	832,955
ii) Renewable energy consumed		2,013,262	2,104,954	1,797,977
Wind		2,383	4,567	5,782
Solar		372	995	1,619
Biomass		2,010,506	2,099,393	1,790,576
iii) Self-generated energy		94,802	86,029	89,893
Electricity	94,802	86,029	89,893	
Heating	–	–	–	
Cooling	–	–	–	
Steam	–	–	–	

Environmental KPIs ¹	Unit	2021	2022	2023	
iv) Sale of energy	'000 kWh	9,767,875	9,305,854	9,459,623	
Electricity		8,822,657	8,318,520	8,557,707	
Heating		417,455	372,494	279,222	
Cooling		–	–	–	
Steam		527,762	614,840	622,695	
Indirect energy consumption		663,384	628,825	583,901	
Electricity		663,384	628,825	583,901	
Total energy intensity		'000 kWh/ HKD \$'000 revenue	0.632	0.640	0.620
Direct energy intensity			0.608	0.616	0.599
Indirect energy intensity			0.888	0.881	0.873
Air emissions					
NOx emissions	tonne	5,587	5,077	5,024	
SOx emissions		772	993	879	
RSP emissions		166	173	157	
Use of water					
Total water consumption	'000 m ³	1,128,408	1,085,874	1,033,355	
Surface water		35,009	42,555	24,571	
Groundwater		42	43	46	
Seawater		1,089,268	1,039,277	1,005,423	
Third-party water		3,864	3,782	3,097	
Other sources		225	217	218	
Water consumption intensity	'000 m ³ / HKD \$'000 revenue	0.041	0.040	0.037	
Waste production					
Total hazardous waste produced	tonnes	13,669	13,641	12,449	
Total non-hazardous waste produced⁷		385,679	437,572	351,097	
Total hazardous waste produced intensity	tonne/ HKD \$'000 revenue	0.001	0.001	0.001	
Total non-hazardous waste produced intensity		0.014	0.016	0.013	
Packaging material					
Total packaging material used for finished products	tonnes	6.76	4.51	6.18	
Paper		6.76	4.51	6.18	

- ¹ Environmental KPIs in this data table are calculated using the equity method. We only include data in the report that were confirmed by end of March 2024. If significant changes occur after preparation of this report, they will be updated in the following year's publication.
- ² Greenhouse gas emissions (GHG) comprise carbon dioxide, methane, nitrous oxide, hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulphur hexafluoride (SF₆). The data are calculated using location and market-based methodology where applicable under regulation. Otherwise, Scope 1 emissions are calculated using the latest available emission factors in line with the Greenhouse Gas Protocol, IEA's Energy Statistics Manual, UK Government GHG Conversion Factors for Company Reporting, USEPA's Emission Factors for Greenhouse Gas Inventories, and HKEPD's Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings in Hong Kong (2010 Edition). Scope 2 emissions are calculated based on the IEA's latest available emission factors.
- ³ Scope 1 emission includes emission from fuels processed in sources that were owned and controlled by our businesses for its own use, and fugitive emissions resulted from intentional or unintentional releases, e.g., gas shrinkage for our gas transmission and distribution businesses, methane emissions from venting, HFC, PFC, emissions from the use of refrigeration and air conditioning equipment, and SF₆ emissions from industrial processes. In 2023, we have reported the biogenic carbon emissions separately according to the GHG Protocol. The 2021 and 2022 data figures have been restated to align with the updated approach to allow for meaningful comparison of data over time.
- ⁴ Scope 2 emission includes the emissions from purchased electricity of our businesses for its own use, and emissions associated with the energy losses from the distribution and electricity system transmission grid ("network losses") for our electricity transmission and distribution businesses. Network losses are calculated as the difference between the electricity entering the network, and electricity used by customers, for which the data are received from the industry taken from meter readings. In accordance with GHG Protocol, the Scope 2 emissions are reported in location-based and market-based in 2023. The 2021 and 2022 data figures have been restated to align with the updated approach.
- ⁵ Total energy consumption = Non-renewable energy consumed + renewable energy consumed + electricity purchased for consumption + self-generated energy that is not consumed – sales of energy.
- ⁶ Other fuels include residual fuel oil, lubricants, and other petroleum products.
- ⁷ Our power-generation businesses produced 48,645 tonnes of ash and gypsum waste in 2023.

Social KPIs ¹		2021	2022	2023
Number of employees				
Total		17,574	17,897	19,165
By employment type	Full-time	16,792	17,095	18,012
	Part-time	782	802	1,153
Number of full-time employees				
By gender	Male	13,871	14,028	14,663
	Female	2,921	3,067	3,349
By employee category	General staff	14,925	14,983	15,464
	Manager grade or above	1,867	2,112	2,548
By age group	Below 30	2,217	2,300	2,493
	30 – 49	8,737	8,976	9,578
	50 or above	5,838	5,819	5,941
By region	Hong Kong	1,846	1,865	1,848
	Mainland China	327	305	303
	Asia (excluding Hong Kong, Mainland China)	42	42	42
	United Kingdom	8,762	8,761	9,235
	Netherlands	492	511	551
	Australia	5,078	5,359	5,764
	Canada	14	13	13
	United States	163	165	171
New Zealand	68	74	85	

Social KPIs ¹	2021	2022	2023
Turnover rate for full-time employees²			
Overall	7.2%	9.1%	7.1%
By gender	Male	6.8%	6.8%
	Female	9.2%	8.5%
By age group	Below 30	7.7%	7.7%
	30 – 49	5.9%	5.9%
	50 or above	8.9%	8.8%
By region	Hong Kong	6.0%	10.8%
	Mainland China	4.3%	4.0%
	Asia (excluding Hong Kong, Mainland China)	2.4%	0.0%
	United Kingdom	6.2%	5.4%
	Netherlands	8.9%	13.4%
	Australia	8.5%	7.8%
	Canada	0%	0.0%
	United States	27.0%	17.5%
	New Zealand	26.5%	14.1%
Work-related fatalities			
Number of work-related fatalities (full-time employees)	0	0	1
Number of work-related fatalities (part-time employees)	0	0	0
Number of work-related fatalities (contractors)	0	0	0
Rate of work-related fatalities	0	0	0.006
Work-related injury (employees)			
Number of lost days due to work injury	1,234	875	1,667
Number of lost time injury incidents	31	34	50
Lost time injury rate ³	0.19	0.21	0.29
Number of first aid incident	Not reported	Not reported	174
Number of high potential incident	Not reported	Not reported	16
Work-related injury (non-employees)			
Number of lost time injury incidents	Not reported	Not reported	41
Lost time injury rate	Not reported	Not reported	0.59
Number of first aid incident	Not reported	Not reported	143
Number of high potential incident	Not reported	Not reported	54

Social KPIs ¹	2021	2022	2023
Health & safety management system			
% of employee covered by OHSAS 18001/ISO 45001 ⁴	84.4%	83.2%	83.3%
Percentage of full-time employees who received training⁵			
Overall	96.7%	94.0%	97.0%
By gender	Male	98.6%	97.9%
	Female	87.6%	92.7%
By employee category	General staff	94.0%	99.9%
	Manager grade or above	100%	79.0%
Average hours of training per full-time employee			
Overall	32.9	36.0	48.4
By gender	Male	35.6	53.7
	Female	20.1	25.5
By employee category	General staff	32.5	51.7
	Manager grade or above	36.3	28.7
Number of suppliers			
Total	16,258	18,805	16,825
By region	Hong Kong	916	904
	Mainland China	310	215
	Asia (excluding Hong Kong, Mainland China)	55	65
	United Kingdom	4,369	3,975
	Europe	954	1,154
	Australia	7,055	8,205
	Canada	317	295
	United States	1,963	1,677
	New Zealand	312	330
Other regions	7	5	
Number of complaints received			
Products and services related	6,675	6,871	5,790
Number of employees who received training on anti-corruptive/ethics and integrity			
Total	3,221	7,419	10,286
By employment type	Full-time	3,137	9,445
	Part-time	84	841
Percentage of full-time and part-time employees who received training on anti-corruptive/ethics and integrity ⁶	18.3%	41.5%	53.7%

Hong Kong Stock Exchange ESG Guide Content Index

Social KPIs ¹	2021	2022	2023
Number of training hours on anti-corruptive/ethics and integrity completed by employees			
Total	5,453.0	6,710.1	8,028.4
By employment type	Full-time	5,371.5	7,723.8
	Part-time	81.5	31.4
Number of whistleblowing reports received			
Number of reports received (including all cases)	Not reported	Not reported	54
Number of reports received (excluding false report)	Not reported	Not reported	11

¹ The reporting scope was expanded in 2023 to include Power Asset's employees in its Hong Kong office. Hence, the 2021 and 2022 social KPIs were restated to align with the reporting methodology.

² Turnover rate refers to full-time employees of the in-scope entities (excluding Husky Midstream) only. It is calculated as "total number of full-time employees leaving employment during the reporting year divided by total number of full-time employees as of 31 Dec of the reporting year and then multiplied by 100%".

³ LTIR represents the number of injuries per 100 employees per year. It is calculated as "total number of injuries multiplied by 200,000 and then divided by total hours worked".

⁴ It is calculated as "total number of employees covered by OHSAS 18001/ISO 45001 divided by total number of employees as of 31 Dec of the reporting period and then multiplied by 100%".

⁵ Full-time employees including terminated employees who left the Company during the reporting period. It is calculated as "total number of full-time employees who received training divided by total number of full-time employees as of 31 Dec of the reporting period and then multiplied by 100%". The percentage of employees who received trainings may exceed 100%.

⁶ It is calculated as "total number of employees who received training on anti-corruptive/ethics and integrity divided by total number of full-time employees as of 31 Dec of the reporting period and then multiplied by 100%".

Mandatory Disclosure Requirements	Page	Remarks
Governance Structure	6-9; 20-24	
		<p>A statement from the board containing the following elements:</p> <ul style="list-style-type: none"> (i) a disclosure of the board's oversight of ESG issues; (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 (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.
Reporting Principles – Materiality	28-32	
		<p>The ESG report should disclosed:</p> <ul style="list-style-type: none"> i) the process to identify and the criteria for the selection of material ESG factors; and (ii) if a stakeholder engagement is conducted, a description of significant stakeholders identified, and the process and results of the issuer's stakeholder engagement.
Reporting Principles – Quantitative	156-162	
		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).
Reporting Principles – Consistency	156-162	
		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.
Reporting Boundary	154	
		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. If there is a change in the scope, the issuer should explain the difference and reason for the change.

Subject Areas, Aspects, General Disclosures and KPIs	Page	Remarks
A. Environmental		
Aspect A1: Emissions		
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.	62-107 <ul style="list-style-type: none"> Environmental Policy Supplier Code of Conduct
KPI A1.1	The types of emissions and respective emissions data.	65-66; 156-157
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	65; 156-157
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	102; 157
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	102; 157
KPI A1.5	Description of emission target(s) set and steps taken to achieve them.	12-15; 66
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.	102-106
Aspect A2: Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	62-107 <ul style="list-style-type: none"> Sustainability Policy Environmental Policy Supplier Code of Conduct
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	65; 156-157

Subject Areas, Aspects, General Disclosures and KPIs	Page	Remarks
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	100; 157
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	12-15; 83-91
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.	100
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	102; 157
Aspect A3: The Environment and Natural Resources		
General Disclosure	Policies on minimising the issuer's significant impacts on the environment and natural resources.	92-107 <ul style="list-style-type: none"> Environmental Policy Supplier Code of Conduct
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	92-107
Aspect A4: Climate Change		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	44-61 <ul style="list-style-type: none"> Environmental Policy
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.	44-61

Subject Areas, Aspects, General Disclosures and KPIs		Page	Remarks
B. Social			
Employment and Labour Practices			
Aspect B1: Employment			
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.	113-128	<ul style="list-style-type: none"> Code of Conduct
KPI B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	115; 159	
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	115; 160	
Aspect B2: Health and Safety			
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.	116; 129-133	<ul style="list-style-type: none"> Health and Safety Policy
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	160	
KPI B2.2	Lost days due to work injury.	130; 160	
KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	129-133	

Subject Areas, Aspects, General Disclosures and KPIs		Page	Remarks
Aspect B3: Development and Training			
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	126-128	
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	126; 161	
KPI B3.2	The average training hours completed per employee by gender and employee category.	126; 161	
Aspect B4: Labour Standards			
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.	110; 116; 143-145; 171	<ul style="list-style-type: none"> Human Rights Policy Modern Slavery and Human Trafficking Statement Supplier Code of Conduct
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	143-145; 171	
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	143-145; 171	
Operating Practices			
Aspect B5: Supply Chain Management			
General Disclosure	Policies on managing environmental and social risks of the supply chain.	143-146	<ul style="list-style-type: none"> Human Rights Policy Modern Slavery and Human Trafficking Statement Supplier Code of Conduct
KPI B5.1	Number of suppliers by geographical region.	143; 161	
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	143-146	

Subject Areas, Aspects, General Disclosures and KPIs	Page	Remarks
KPI B5.3	143-146	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.
KPI B5.4	143-146	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.
Aspect B6: Product Responsibility		
General Disclosure	116; 134-139; 140-142	<ul style="list-style-type: none"> Code of Conduct Personal Data Privacy Policy
KPI B6.1	–	This indicator is not considered material to the Group hence such data are not disclosed.
KPI B6.2	134-139; 161	Number of products and service-related complaints received and how they are dealt with.
KPI B6.3	–	Our Code of Conduct outlines our commitment to intellectual property rights protection.
KPI B6.4	134-139	Description of quality assurance process and recall procedures.
KPI B6.5	140-142	<ul style="list-style-type: none"> Information Security Policy Personal Data Privacy Policy

Subject Areas, Aspects, General Disclosures and KPIs	Page	Remarks
Aspect B7: Anti-corruption		
General Disclosure	41-43	Information on: <ul style="list-style-type: none"> (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. <ul style="list-style-type: none"> Code of Conduct Anti-Fraud and Anti-Bribery Policy No recorded cases of non-compliance with laws and regulations relating to anti-corruption and bribery during the reporting period.
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.
KPI B7.2	41-43	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.
KPI B7.3	41-43	Description of anti-corruption training provided to directors and staff.
Community		
Aspect B8: Community Investment		
General Disclosure	147-153	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. <ul style="list-style-type: none"> Sustainability Policy
KPI B8.1	147-153	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).
KPI B8.2	147-153	Resources contributed (e.g. money or time) to the focus area.

TCFD Content Index

TCFD recommendations	Page	Remarks
Governance		
Disclose the organisation's governance around climate-related risks and opportunities.	Describe the board's oversight of climate-related risks and opportunities.	46-47
	Describe management's role in assessing and managing climate-related risks and opportunities.	46-47
Strategy		
Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.	Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	47-60
	Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	47-60
	Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	47-60
Risk Management		
Disclose how the organisation identifies, assesses, and manages climate-related risks.	Describe the organisation's processes for identifying and assessing climate-related risks.	61
	Describe the organisation's processes for managing climate-related risks.	61
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	61
Metrics and Targets		
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	12-15; 61
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions and the related risks.	65-66; 156
	Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	12-15

UNGC Content Index

Power Assets has strongly committed to integrating the ten principles into our overall strategy, culture and daily operations. These are reflected in the written commitments and policies below, with comprehensive information provided throughout this report. Performance metrics are tracked and are available on pages 156-162.

UN Global Compact Principle	Power Assets written commitment/policies	Sustainability report page reference & further notes
Human Rights		
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights	<ul style="list-style-type: none"> Human Rights Policy Modern Slavery and Human Trafficking Statement Supplier Code of Conduct 	The Group's Human Rights Policy, Modern Slavery and Human Trafficking Statement, and Supplier Code of Conduct set out our expectations regarding respect for human rights.
Principle 2: make sure that they are not complicit in human rights abuses	<ul style="list-style-type: none"> Supplier Code of Conduct 	We strive to help increase the protection and enjoyment of human rights within the communities in which we operate. Information on how the Group and our business unit address human rights protection is available on pages: 143-145.
Labour		
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	<ul style="list-style-type: none"> Human Rights Policy Modern Slavery and Human Trafficking Statement Code of Conduct 	Power Assets strives to provide a decent place to work and committed to create a diverse and inclusive workplace by respecting the values, customs, and traditions of our employees in different operating markets.
Principle 4: the elimination of all forms of forced and compulsory labour	<ul style="list-style-type: none"> Code of Conduct 	We believe that collective bargaining is an essential tool for ensuring our business is conducted ethically and responsibly. As of year-end 2023, we are proud to report that 88.3% of our 19,165 employees from all our business units are covered by collective bargaining rights. We will continue to work with our employees and their representatives to ensure that fair and equitable labour practices are at the heart of everything we do.
Principle 5: the effective abolition of child labour		We also prohibit the use of all forms of child labour or forced labour, including prison labour, bonded labour, any form of slavery and any form of human trafficking. The Group conducts due diligence as part of our initiative to identify and mitigate relevant risks, such as in our assessment of potential new suppliers and our handling of whistle blowing cases.
Principle 6: the elimination of discrimination in respect of employment and occupation		Please refer to pages 110-121 to understand how the Group promotes inclusion and diversity.

Verification Statement

UN Global Compact Principle	Power Assets written commitment/policies	Sustainability report page reference & further notes
Environment		
<p>Principle 7: Businesses should support a precautionary approach to environmental challenges</p> <p>Principle 8: undertake initiatives to promote greater environmental responsibility</p> <p>Principle 9: encourage the development and diffusion of environmentally friendly technologies</p>	<ul style="list-style-type: none"> Sustainability Policy Environmental Policy Supplier Code of Conduct 	<p>According to our Environmental Policy, Sustainability Policy and Supplier Code of Conduct, the Group aims to provide clear and comprehensive guiding approaches to sustainability practices across our operations.</p> <p>Power Assets has made a clear public commitment to phase out our coal-fired generation by 2035 and further iterate our ambition to reduce our Scope 1 and 2 emissions. We also strive to support various government decarbonisation plans and net zero commitment proactively. Please refer to pages 12-15 and 62-107 to further explore how we manage these environmental targets and relevant objectives.</p>
Anti-Corruption		
<p>Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery</p>	<ul style="list-style-type: none"> Code of Conduct Anti-Fraud and Anti-Bribery Policy Supplier Code of Conduct 	<p>Power Assets is committed to upholding the highest compliance and anti-corruption standards and always behaving with integrity. For further information, please refer to pages 41-43.</p>



VERIFICATION STATEMENT

Scope of Verification

Hong Kong Quality Assurance Agency (“HKQAA”) conducted an independent verification for the Sustainability Report 2023 (“the Report”) of Power Assets Holdings Limited (“Power Assets”). The scope of HKQAA’s verification covered the performance data and information associated to environmental, social and governance aspects of Power Assets for the period from 1st January 2023 to 31st December 2023 in providing a limited level of assurance.

The Report has been prepared in accordance with the Environmental, Social and Governance Reporting Guide (“ESG Guide”) contained in Appendix C2 to The Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited and with reference to the recommendations from the Task Force on Climate-related Financial Disclosures (“TCFD”).

Level of Assurance and Methodology

The process applied in this verification was based on the International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements Other Than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. Our evidence gathering process was designed to obtain a limited level of assurance for devising the verification conclusion.

Our verification procedures covered:

- review of the report compilation, stakeholder engagement and materiality assessment processes.
- examination of the raw data and supporting evidence of the selected samples; and
- evaluation of the mechanism for collecting, collating and reporting performance data.

Independence

Power Assets is responsible for preparing the report. HKQAA was not involved in calculating, compiling, or in the development of the Report. Our verification activities are independent from Power Assets.

Conclusion

Based on the verification results and in accordance with the verification procedures undertaken, HKQAA has obtained a limited level of assurance and is in the opinion that nothing has come to the attention of the verification team’s that:

- The Report has not complied with all mandatory disclosure requirements and “comply or explain” provisions outlined in the ESG Guide; and
- The Report has not been prepared with reference to the TCFD recommendations for disclosure.

Signed on behalf of Hong Kong Quality Assurance Agency

Connie Sham
Head of Audit
March 2024

Abbreviations

Abbreviation	Long form
CEDD	Civil Engineering and Development Department
CMIP5	Coupled Model Intercomparison Project Phase 5
CO ₂	Carbon dioxide
COP	Communication on Progress
COP28	The 28th United Nations Climate Change Conference
D&I	Diversity and Inclusion
DBNGP	Dampier-to-Bunbury Natural Gas Pipeline
DCCEEW	Department of Climate Change Energy, Environment and Water
DEI	Diversity, Equity and Inclusion
DNO	Distribution Network Operator
DOE	Dynamic operating envelope
DSO	Distribution System Operator
EBIT	Earnings Before Interest and Tax
EMS	Environmental Management System
ENA	Energy Networks Association
ESG	Environmental, Social and Governance
ESG Guide	Environmental, Social and Governance Reporting Guide
EST	Energy storage truck
EV	Electric vehicle
FiT	Feed-in Tariff
FSRU	Floating Storage and Regasification Unit
GHG	Greenhouse gas
GIS	Gas Insulated Switchgear
HFC	Hydrofluorocarbons
HKQAA	Hong Kong Quality Assurance Agency
HSE	Health, safety, and environmental
HSSE	Health, safety, security and environment
HVO	Hydrotreated vegetable oil
HyP	Hydrogen park
IASA	International Institute for Applied Systems Analysis
ICAC	Independent Commission Against Corruption
IEA	International Energy Agency
ILO's	International Labour Organisation's
IPCC	Intergovernmental Panel on Climate Change
JRC	Joint Research Centre
KPIs	Key performance indicators
LCTs	Low carbon technologies
LiDAR	Light detection and ranging
LPG	Liquified petroleum gas
LTIFR	Lost Time Injury Frequency Rate
LTIs	Lost Time Injuries
LV	Low voltage
MAGICC	Model for the Assessment of Greenhouse Gas Induced Climate Change
MERV	Mobile Engagement and Response Vehicle
MGP	Methane Guiding Principles
NEM	National Energy Market
NGO	Non-governmental organisation

Abbreviation	Long form
NOx	Nitrogen oxides
OGDC	Oil & Gas Decarbonisation Charter
PCT	Power changeover truck
PFC	Perfluorocarbons
PSR	Priority service register
RAPs	Reconciliation Action Plans
RCP	Representative Concentration Pathway
REC	Renewable Energy Certificates
RNG	Renewable natural gas
RSP	Respirable suspended particulates
SAIDI	System Average Interruption Duration Index
SBTi	Science Based Targets initiative
SDGs	Sustainable Development Goals
SF ₆	Sulfur hexafluoride
SOx	Sulfur oxides
STEM	Science, technology, engineering and mathematics
TCFD	Task Force on Climate-Related Financial Disclosures
TNFD	Taskforce on Nature-Related Financial Disclosures
UNGC	UN Global Compact
VESI	Victorian Electricity Supply Industry
VPP	Virtual Power Plant
WRI	World Resources Institute
WCMG	Waste coal mine gas
YIC	Young Innovators Council
ZEB	Zero Emission Boilers



Power Assets Holdings Ltd.
電能實業有限公司

