

# BUSINESS REVIEW



Investment in  
**POWER  
ASSETS**

Infrastructure  
Investments in  
**UNITED  
KINGDOM**



Infrastructure  
Investments in  
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Infrastructure  
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## INVESTMENT IN POWER ASSETS

The Power Assets Group is a global investor in power generation, transmission and distribution, gas transmission and distribution, as well as oil storage and transmission in nine markets spread across four continents – namely the UK, Australia, Hong Kong, Mainland China, the Netherlands, New Zealand, Thailand, Canada and the United States.

2022 saw the Power Assets Group (“Power Assets”) delivered stable performance based on its diversified energy portfolio. With its strong financial and cash position, Power Assets persists with its long-term strategy to focus on low-risk, well-managed companies in mature energy markets to ensure delivery of long-term sustainable growth to shareholders.

Power Assets’ flagship company HK Electric continued to provide stable income, while supporting Hong Kong Government’s plan to halve carbon emissions by 2035 and achieve carbon neutrality by 2050. Highlights of the year includes the launch of L11, a new 380 MW combined-cycle unit, which raises gas-fired generation at Lamma Power Station to over 50%. The company also worked with the Government and other stakeholders on various renewable energy initiatives, such as employing emissions-reduction measures and offering technical consultancy for the development of electric road transport.

United Kingdom is Power Assets’ largest market of operation. During the year, UK Power Networks delivered its best-ever network reliability performance and maintained its industry leadership in customer service quality. The company’s business plan for the next regulatory period was approved by The Office of Gas and Electricity Markets (“Ofgem”), ensuring predictable revenues and cash flow between April 2023 and March 2028. Northern Gas Networks led industry efforts to commercialise blended hydrogen in North East England, including establishing a hydrogen-blended network and piloting hydrogen-powered heating in key communities. Wales & West Utilities started new initiatives and supplied decarbonised biomethane gas to about 155,000 homes and has connected 20 biomethane plants to the network, while continuing to exceed operational targets for customer satisfaction, reliability and emissions. Seabank Power continued to deliver satisfactory performance.

In Australia, Victoria Power Networks installed a 150 kW community battery in Melbourne to store excess rooftop solar power to supply nearby homes during peak periods. United Energy completed

a major works programme to support more rooftop solar generation across the network. SA Power Networks implemented upgrades at many zone substations to enhance the networks’ ability to handle very high numbers of solar and battery systems without compromising reliability. In the Australian Gas Infrastructure Group, Australia Gas Networks continued on with its hydrogen projects to blend green hydrogen into its distribution networks, while Australian Gas Networks and Multinet Gas, together with AusNet, won the 2022 Energy Networks Industry Consumer Engagement Award, and Dampier Bunbury Pipeline delivered good performance. Energy Developments completed Tessman Road Renewable Natural Gas Project in the United States and Jabiru Hybrid Renewable Power Station in Australia, enriching its portfolio in sustainable energy industry.


The Canadian portfolio continued on its decarbonisation journey and implemented system enhancements. Canadian Power’s Sheerness power station delivered 100% gas-fired electricity and significantly cut its carbon footprint, while the Okanagan windfarm completed its first full year of operation as a Power Assets company. Husky Midstream opened major new connections to the Cold Lake Gathering System, the Saskatchewan Gathering System, and tanks in the Hardisty terminal.

In the Netherlands, Dutch Enviro Energy saw increased demand for CO<sub>2</sub>, sustainable steam supply and electricity flexibility services. The company will further expand the amount of CO<sub>2</sub> it captures and sustainable steam it supplies to maintain the balance of the national grid.

Wellington Electricity in New Zealand continued to maintain a reliable network. During the year, the company managed to minimise supply disruption for customers in severe weather events.

In Mainland China, the Jinwan co-generation power plant recorded losses in the year due to the upsurge of coal price. The two windfarms in Dali and Laoting jointly offset 166,240 tonnes of carbon emissions.



An aerial night photograph of London, showing the River Thames flowing through the city. The Tower Bridge is illuminated and stands out prominently in the center. The city lights are reflected on the water, and the surrounding urban landscape is visible in the background.

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# INFRASTRUCTURE INVESTMENTS IN UNITED KINGDOM

In the United Kingdom, CKI has investments in electricity and gas distribution, water and wastewater services, electricity generation as well as railway rolling stock. These investments include UK Power Networks, the electricity distribution network operator that serves London, South East England and the east of England; Northern Gas Networks, a gas distribution business that serves the north of England; Wales & West Gas Networks, a gas distribution business that serves Wales and South West England; Seabank Power, an electricity generation plant located near Bristol; Northumbrian Water, a water supply, sewerage and wastewater company that serves the North East and provides water supply to certain areas in South East England; and UK Rails, one of the three major rolling stock leasing companies in the United Kingdom.



## UK POWER NETWORKS

UK Power Networks owns and maintains electricity networks across London, the South East and the East of England. The company's network is approximately 190,000 kilometres in length and covers an area of over 29,000 square kilometres, serving 8.4 million homes and businesses. The company also has a non-regulated business – UK Power Networks Services – which designs, builds, owns and operates private networks for both public and private sector clients.

UK Power Networks' outstanding customer service received recognition from a wide array of organisations. In the UK Customer Satisfaction Index compiled by the Institute of Customer Service in July 2022, UK Power Networks was named the best in the utilities category in the UK for customer service. This is an exceptional accolade and represents the first time that a UK utility company has achieved this top ranking. In the Broad Measure of Customer Service and that of Performance conducted by Ofgem, UK Power Networks was again rated the number one electricity distribution network operator in both areas.

At the European Contact Centre and Customer Service Awards, UK Power Networks won in the Large Contact Centre of the Year category. The award event is considered the "Oscars" of the call centre industry. The company was also presented with the top prize for Best Customer Experience as well as Employee Engagement Strategy of the Year by the UK Contact Centre Forum. The award recognises the company's efforts to sustain and support the communities it serves. In addition, the company also garnered the Employer of the Year Award in the Utility Week Awards in March 2022, and Capital Project of the Year Award in the same Awards in December 2022.

During the year, the company continuously made investments to upgrade its network assets, one of which is the electrical infrastructure around Biggleswade, Bedfordshire. The project is part of the Central Bedfordshire Council's initiative to support planned housing growth of around 3,000 homes to the east of the town. The new facilities will increase power capacity in Biggleswade and help the community move towards a low-carbon economy. Construction work will take around three years with energisation planned in the winter of 2024.



UK Power Networks was named the best in the utilities category in the UK for customer service in the UK Customer Satisfaction Index compiled by the Institute of Customer Service.

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In addition, UK Power Networks Services won a contract to supply new electrical technology to the Port of Felixstowe. This is the company's first major project in the ports industry and one of its largest projects in the last five years. The three-year decarbonisation project includes upgrading the existing 11,000 V electricity network to supply power to the 17 new electric gantry cranes, and introducing 48 new electric tractor units to replace some of the existing diesel vehicles, helping the Port meet its net zero aspirations.

Work on a major upgrade for key electrical substations along London's Piccadilly underground line commenced during the year. New electrical infrastructure, electrical control systems and cables will be installed along the line. The upgrade project is scheduled for completion by 2025. The increased electrical capacity will allow Transport for London to launch a new fleet of air-conditioned trains with improved reliability, efficiency and accessibility for passengers.

In 2022, UK Power Networks started to use the new 36 kV double busbar AirPlus switchgear to replace components that utilise sulphur hexafluoride, one of the most potent greenhouse gases. The first batch of the new switchgear was installed at the substation in Dartford, Kent.

Currently, UK Power Networks is delivering £66 million of "Green Recovery" investments to support low-carbon energy projects to achieve the UK Government's Ten Point Plan towards Net Zero by 2050. A total of 86 "Green Recovery" schemes are being fast-tracked, including Electric Vehicle charging hubs at motorway service stations, fleets of electric buses, community energy schemes and heat pumps.

## NORTHUMBRIAN WATER

Northumbrian Water is one of ten regulated water and sewerage companies in England and Wales. The company operates approximately 26,000 kilometres of water mains and 30,000 kilometres of sewers, providing water and wastewater services to 2.7 million people in North East England, and supplying drinking water to 1.8 million people in South East England.

In addition to regulated businesses, Northumbrian Water's operations include Kielder Reservoir, the largest man-made reservoir in northwestern Europe; the company also has a portfolio of long-term water and wastewater contracts in Scotland and Ireland.

On 14th July, 2022, CKI together with CK Asset and CK Hutchison jointly announced an agreement for Kohlberg Kravis Roberts & Co. L.P. (KKR) to acquire a 25% shareholding of Northumbrian Water. Financial close took place in December 2022. CKI currently owns a 39% interest in Northumbrian Water and continues to have the largest economic benefit in the company.

Northumbrian Water received a number of accolades in 2022. It attained a four-star rating from the UK Environment Agency, while in the North East England Chamber of Commerce Business Awards, Northumbrian Water was named Community Business of the Year. The company was again included in the UK's Best Workplaces™ list in the Super Large category published by Great Place to Work. This is the second time Northumbrian Water received this recognition; it is also the only water and sewerage company to make the list. In the Constructing Excellence National Awards, the company's employee wellbeing programme called "Living Well" obtained a "Highly Commended" rating. Furthermore, Northumbrian Water was listed among the World's Most Ethical Companies compiled by the Ethisphere Institute for the 11th time. It is the only water company recognised on this list. Additionally, in the annual UK Water Company Performance Survey conducted in 2022 by British Water, Northumbrian Water captured the first place.



Northumbrian Water attained a four-star rating from the UK Environment Agency and was named Community Business of the Year in the North East England Chamber of Commerce Business Awards.

Subsequent to the approval by the United Nations to become part of the Race to Zero campaign, Northumbrian Water released its first annual update on taking positive steps towards achieving its net zero goal by 2027. The company has cut its carbon emissions by more than 90% from its 2008 baseline.

During the year, Northumbrian Water participated in sponsored projects that will help to reduce leakage and enable innovations across the utilities sector. The first of these initiatives is the setting up of the National Leakage Centre, which is the creation of a large-scale five-kilometre-long buried water network and control room used to accelerate the development of leakage detection and repair solutions. Researchers will use the site to trial leakage solution ideas without any interruption to customer supplies or risks to water quality. The second project, known as Stream, is the development of a new open data-sharing platform for the water and utilities industry. This platform will allow all UK water companies to share data amongst themselves, and with other utility companies.

In another sponsored research project named Treatment-to-Tap, Northumbrian Water collaborated with other water companies and technology partners to launch Europe's largest network of water quality and leakage sensors and analytics software. In phase one of the project, Northumbrian Water installed new sensors on the inlet and outlet of reservoirs across its Teeside network to understand impacts

such as sediment in the network. In phase two, around 30 different water quality instruments were deployed, with further collaboration to monitor pressure via artificial intelligence and hydraulic simulation through the network.

Utilising new technology developed from its Innovation Festival 2021, Northumbrian Water reduced leakage by 25% in parts of Newcastle and Dagenham in a trial. The prediction model made use of existing data from the company's network together with pressure sensors in pipes to identify the location of leakage in two of the highest leakage areas in the network. With this new technology, leakage problems can be tackled more proactively.

Hosted by Northumbrian Water, the sixth annual Innovation Festival returned to Newcastle Racecourse in July 2022 after a two-year hiatus. Over 2,000 innovative thinkers from across the globe gathered at Newcastle Racecourse to brainstorm solutions to difficult problems, such as water scarcity and cyber security. One of the innovations known as No Dig is a piece of technology made of water, gel and minerals. When injected into underground pipes that are leaking, it can quickly stop or stem leakages without the need for excavation. Trials and tests are underway for No Dig and many other projects that have been developed from the Innovation Festival, in the hope of bringing these novel concepts to fruition to yield real world benefits.



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During the year, Northern Gas Networks' Hydrogen Home project was named Project of the Year 2022 in the Institution of Gas Engineers & Managers Awards.

### NORTHERN GAS NETWORKS

Northern Gas Networks is a gas distribution company that serves the north of England. The network spans 36,000 kilometres of gas distribution pipelines which stretches from Northern Cumbria to the North East, including much of Yorkshire and covering large cities as well as rural areas. It transports approximately 13% of the nation's gas, serving a population of 6.7 million.

During the year, Northern Gas Networks' Hydrogen Home project was named Project of the Year 2022 in the Institution of Gas Engineers and Managers (IGEM) Awards. Its Ivory Street project in Leeds received the Most Considerate Site Award of the Considerate Constructors Scheme.

In the first quarter of 2022, Northern Gas Networks was awarded innovation funding as part of Ofgem's £450 million Strategic Innovation Fund (SIF), for innovation feasibility projects aimed at accelerating the UK's transition to net zero emissions by 2050. The SIF is delivered in partnership with Innovate UK, part of UK Research and Innovation (UKRI).

Working with strategic partners including Newcastle University, National Grid, Synnovate and Eversholt Rail, five projects began a six-month "Discovery" phase examining different aspects of the transition. The Thermal Imaging initiative – which uses analysis of thermal imagery to assess fluid and pressure condition of pipes – has now progressed to the next funding phase.

During the year, Northern Gas Networks continued to take the lead on various pioneering hydrogen projects that contribute to the United Kingdom's progress towards decarbonisation. One of these initiatives is H21, the gas industry's flagship project funded by Ofgem, which aims to demonstrate that the existing gas network can be repurposed to carry 100% hydrogen.

The South Bank programme, part of the H21 initiative, was concluded after a six-month trial period. The project is designed to test the use of 100% hydrogen on an existing, disused gas distribution network. Engineers used a unique site located in the South Bank area of Middlesbrough, where 70 homes had been demolished, leaving the underground gas

infrastructure intact. Recommendations on the suitability of the UK's existing gas network to carry hydrogen will be made following a thorough analysis of the results of a comprehensive range of operational tests.

Northern Gas Networks was also given the green light by the United Kingdom Government and Ofgem to develop its proposal for the UK's first hydrogen village by switching the gas supply from natural gas to clean burning hydrogen for around 2,000 homes and businesses in parts of Redcar, including the town centre, Warrenby, Coatham and an area of Kirkleatham. The company will be responsible for developing a detailed proposal and will liaise with the local community and stakeholders in the area. After all approvals are obtained, the project is expected to commence in 2025 and run for around two years.

A trial for HyDeploy, a project that blended up to 20% hydrogen into an existing gas supply with no changes required to pipework or appliances, was completed in August 2022. Over a period of 11 months, up to 20% by volume of hydrogen was blended with natural gas on a closed section of the network at Winlaton in Gateshead, supplying the blended mix to 668 houses as well as a church and school. This is the second phase of the HyDeploy project, but the first time hydrogen has been blended into an existing public gas network. The first phase of the HyDeploy project was conducted on a private gas network at Keele University; it served 100 homes and around 30 commercial buildings. A report on the findings from the trial at Winlaton will be submitted to the government ahead of its decision on the wider blending of hydrogen into the UK gas grid.

With the support of Bradford Council, Northern Gas Networks partnered with two companies to establish a low carbon hydrogen production hub and dispensing facility in Bradford. The project will be built on Northern Gas Networks' decommissioned gas storage site in Bradford with the objective of using renewable energy to power electrolyser producing hydrogen. The site will also provide refuelling service for hydrogen vehicles, EV charging, and will feature a low carbon technology education centre.

## WALES & WEST GAS NETWORKS

Wales & West Gas Networks is the holding company of Wales & West Utilities, one of eight gas distribution networks in the United Kingdom. The company has 2.5 million supply points and a pipeline network of 35,000 kilometres. It serves an area of 42,000 square kilometres and a population of 7.5 million in Wales and South West England.

Wales & West Gas Networks received the Gold Medal from the Royal Society for the Prevention of Accidents (RoSPA) in 2022 for its high standards in health and safety. This is the ninth year in a row that the company has been recognised with this award.

During the year, Wales & West Gas Networks continued to upgrade its infrastructure facility in order to ensure the delivery of safe and quality service. The company replaced 455 kilometres of mains and completed over 13,000 mains as well as service repairs and has also connected its 20th biomethane production site to provide enough capacity for heating 160,000 homes. In addition, it opened a new depot in Bristol on a decommissioned gas holder site. The company has approximately 150 employees in Bristol, and the new base will accommodate both operational and office-based teams.

In the first quarter of 2022, Wales & West Gas Networks received a grant from Ofgem's Strategic Innovation Fund for the HyPark project, which includes a compact, intelligently controlled fuel-cell to charge electric vehicles via connection to the gas grid. HyPark uses smart technology to identify the best ways to charge vehicles, and the gas grid connection ensures that the fuel cell could also be converted to run on hydrogen; this initiative is in preparation for the fuelling of hydrogen vehicles in the future. The grant enables the company to assess the suitability of potential charging locations and test technology configurations that support net zero transport across the United Kingdom.

In a plan published by energy network companies, Wales & West Gas Networks outlined how it will meet the Government's target for gas pipes to be ready to



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deliver up to 20% hydrogen to homes and businesses from 2023 as replacement for up to a fifth of the natural gas currently used. Between 2021 and 2026, a total of £400 million will be invested by the company to prepare its gas network to transport hydrogen and biomethane to power a green future.

In a collaborative project, Wales & West Gas Networks and other partners demonstrated the world's first smart hydrogen hybrid heating system in Pembrokeshire. The trial was funded by UK Research and Innovation, and was conducted in a commercial building at the Port of Milford Haven, the UK's largest energy port. Hybrid heating systems was switched flexibly between renewable electricity and green gases such as hydrogen. This smart technology will help enable the full decarbonisation of heating in a cost-effective way.

In 2022, Wales & West Gas Networks participated in the Cartrefi Hydrogen Homes project in which unoccupied existing socially rented homes were retrofitted to use 100% hydrogen.

Wales & West Gas Networks also joined the Hydrogen South West consortium which will create an infrastructure ecosystem for the South West of England to decarbonise transport, commerce and power. The collaboration of key industries will facilitate cross-sector partnerships to drive the development of hydrogen infrastructure and technology, as well as create highly skilled new jobs in the region.

In addition, HyLine Cymru, a plan to build a major hydrogen pipeline along the south coast of Wales, was unveiled by Wales & West Gas Networks in 2022. Under the plan, the hydrogen pipeline will run from Pembroke to the Swansea Bay area, connecting low-carbon hydrogen producers in Pembrokeshire, Port Talbot and the Celtic Sea with energy intensive industrial customers to enable fuel-switching from natural gas in the 2030s. It will also facilitate the conversion of home heating to hydrogen, enabling towns in south Wales to go green. Led by Wales & West Gas Networks in collaboration with eight key organisations, HyLine Cymru will explore the feasibility of transporting hydrogen in south Wales, working towards reducing carbon in the area.

### SEABANK POWER

Seabank Power is the owner and operator of a combined cycle gas turbine power plant located near Bristol in the South West of England. The power plant's total generating capacity is approximately 1,140 MW. In 2022, Seabank and Shell Energy Europe agreed to enter into a fixed 100% toll arrangement for Seabank's output, covering an initial six-year period from October 2022 to September 2028. The new arrangement positively impacts Seabank's financial position and predictability of cashflows.

## UK RAILS

UK Rails is one of the three major rolling stock leasing companies in the United Kingdom. The company leases regional, commuter and high-speed passenger trains on long-term contracts to train operating companies, as well as freight locomotives to freight operating companies. UK Rails' rolling stock portfolio includes 19 different fleets of passenger trains comprising about 3,000 passenger vehicles; and 80 freight locomotives. It also leases two depots.

During the year, UK Rails signed new leases for its fleets, including those with ScotRail, Great Western Railway and East Midlands Railway.

UK Rails has a new product for the high-speed freight market, which has been growing rapidly in recent years with the expansion of e-commerce. In October 2022, UK Rails entered into an agreement with Varamis Rail for the leasing of a Class 321 Swift Express Freight train for the delivery of light goods running on electric traction. UK Rails has also repurposed former passenger trains for freight use on high-speed all-electric, 100mph services. The company plans to sign further lease agreements for these innovative trains.

During the year, an agreement was signed by UK Rails and Hitachi Rail to upgrade Class 395 Javelin trains that are on lease to Southeastern Trains.

These trains are currently providing high-speed services between London St Pancras and Kent. The upgrade will improve the passenger experience on the UK's fastest domestic passenger fleet. Scope of the £27 million programme includes full interior refurbishment, live passenger information system, and the latest standards in comfort and convenience. The Javelin fleet will also be one of the first in the UK to install Hitachi Rail's digital infrastructure monitoring technology. Exterior roof mounted high-definition cameras are to be installed to facilitate live monitoring of overhead lines and surrounding equipment.

UK Rails received eight trophies at the annual country-wide Golden Spanner Awards for train performance. The company's Class 222 and Class 185 fleets were recognised with Golden Spanners for being the most reliable trains based on miles per technical incident. The Class 320, Class 170 and Class 195 fleets received Silver Spanners for being the most improved train fleet in terms of percentage improvement in miles per technical incident. The Class 315, Class 397 and Class 171 fleets were presented with Bronze Spanners in the passenger experience index category. In addition, UK Rails' Revolution Very Light Rail (RVLR) Train developed in partnership with Transport Design International won a number of industry awards including the Global Light Rail Technical Innovation of the Year Award in the Rolling Stock.



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# INFRASTRUCTURE INVESTMENTS IN AUSTRALIA

In Australia, CKI has investments in electricity and gas transmission and distribution, as well as renewable and remote energy solutions. It owns SA Power Networks, the primary electricity distributor in the state of South Australia; Victoria Power Networks, whose member companies CitiPower and Powercor, distribute electricity to approximately 65% of the state of Victoria, and Energy Solutions, a leader in developing large-scale renewable energy generation; United Energy, an electricity distribution business in Victoria serving more than 700,000 customers across east and southeast Melbourne and the Mornington Peninsula; Australian Gas Networks and Multinet Gas, which are natural gas distribution businesses operating across Australia; Dampier Bunbury Pipeline, Western Australia's principal gas transmission pipeline; as well as Energy Developments, a sustainable distributed energy producer of clean and renewable electricity, renewable natural gas as well as remote renewable energy. The Group's portfolio also includes Australian Energy Operations, a renewable energy power transmission business in Victoria.

In the National Electricity Market (NEM), SA Power Networks, CitiPower, Powercor and United Energy have been ranked first, second, third and fifth respectively by Australian Energy Regulator (AER) based on their total productivity.

## SA POWER NETWORKS

SA Power Networks is South Australia's sole electricity distributor, which serves more than 900,000 homes and businesses. Its network covers an area of about 178,000 square kilometres, and has a route length is approximately 90,000 kilometres. The company has been ranked first in the national electricity market by Australian Energy Regulatory (AER) for its productivity.

SA Power Networks hosts the largest source of renewable energy generation in South Australia – more than 300,000 household customers are powered by solar and 30,000 by batteries.

In 2022, SA Power Networks introduced the innovative Flexible Exports scheme which allows compatible smart inverters to access a variable solar export limit of between 1.5 kW and 10 kW per phase while automatically adjusting to the export capacity of the local network throughout the day. Flexible Exports was a popular choice for customers in trials in 2022 as it enabled them to increase their power export to the grid. SA Power Networks is working towards making Flexible Exports a standard service in the coming years.

South Australia's distribution network was a net exporter of energy – the output of rooftop solar and other distribution-connected generation was more than the daytime electricity demand on the network – on 12 days in 2022. On 16th October, SA Power Networks achieved a new “negative demand” record of -236 MW with the distribution network being a net exporter for more than 5.5 hours, the longest duration recorded in South Australia's energy transition.

SA Power Networks intends to double the amount of solar on the network by 2025. In the next five to ten years, the company expects to see South Australia's energy needs during the middle parts of the day regularly 100% supplied from rooftop solar.

SA Power Networks released its first comprehensive, externally audited sustainability report in September 2022. Among the highlights is that over 80% of total waste generated within the company has been diverted from landfill, a high achievement for a large and complex business that spans across the entire state. The company will continue to improve its sustainability performance and is working towards reaching net-zero emissions by 2035.



SA Power Networks has been ranked first in the national electricity market by Australian Energy Regulator for its productivity.



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CitiPower and Powercor of Victoria Power Networks adapted the Dynamic Voltage Management System to allow network controllers to optimise solar export capacity across their networks.

In July, SA Power Networks completed construction of a large-scale substation in St Kilda to provide the required load for a testing facility at the Navy's new Hunter Class frigate facility.

### VICTORIA POWER NETWORKS

Victoria Power Networks comprises electricity distribution networks CitiPower and Powercor, as well as energy infrastructure developer Energy Solutions (trading as "Beon"). In the National Electricity Market (NEM), CitiPower and Powercor continued to be ranked second and third respectively by the Australian Energy Regulator (AER) based on their total productivity.

CitiPower owns and operates a network that serves 340,000 customers in the central business district and inner suburbs of Melbourne, while Powercor covers a service area that includes regional and rural areas in central and western Victoria as well as Melbourne's outer western suburbs, supplying electricity to around 930,000 customers. Beon is a leader in the design, construction and maintenance of large-scale renewable energy and infrastructure projects in Australia.

CitiPower and Powercor adapted the Dynamic Voltage Management System ("DVMS") to allow network controllers to optimise solar export capacity across their networks. The innovative system tracks data from the companies' fleet of 1.1 million highly advanced smart meters in Victoria. DVMS automatically adjusts voltage up or down in real time to keep the networks performing within an optimal range, optimizing operational capability to keep power accessible and affordable for all their customers while supporting a clean energy future. This has been a significant enhancement in managing voltage across the distribution networks in real time.

In July, CitiPower and Powercor launched the "Daytime Saver" trial to incentivise customers to shift their power demand to daylight hours when energy is more abundant. The companies are offering a \$0 network charge to encourage customers to use major appliances between 10am and 3pm to maintain network stability while reducing emissions. The time-based price incentive is available for 27,000 customers until June 2026.

As part of CitiPower and Powercor's ongoing Future Networks Programme, network capacity upgrades have allowed more customers to export excess power generated by their solar panels back onto the network. CitiPower and Powercor have more than 200,000 households with rooftop solar that are generating over 800 MW – this amount is larger than the output of any gas-fired power station, coal-fired generation unit, windfarm or solar farm in Victoria. The networks have approved more than 90% of applications from customers seeking to export excess solar onto the network.

CitiPower and Powercor also continued to roll out their year-round vegetation inspection and tree-cutting programme to keep the network and community safe. This vegetation management programme is the largest in the state, with 100% of the more than 80,000 kilometres of powerlines inspected by the company's two helicopters which are fitted with advanced Light Detection and Ranging (LiDAR) technology. Significant investments in aerial services have been made in recent years to improve vegetation management. More accurate scanning have been carried out for trees near powerlines to identify branches that require trimming. Additionally, more targeted cutting performance have been achieved and better planning for annual re-growth rates have been made.

During the year, Powercor carried out intensive works to replace and reinforce power poles to strengthen the resilience of its electricity network in western Victoria. This is part of a five-year programme which takes a proactive and precautionary approach to replace and reinforce over 34,650 poles across western Victoria between 2022 and 2026, the aim of which is to build a stronger and safer network to prepare for unstable weather conditions in the future.

Beon has continued to demonstrate leadership within the solar farm construction sector. During the year, Beon completed construction and achieved commercial status with the full commissioning of the 115 MW Metz solar farm in New South Wales. The company also completed construction of the 18 MW Eastern Treatment Solar Farm, and the 9 MW Winneke Solar farm in Victoria.

Furthermore, Beon continued delivering multiple substation projects, including transformer and switchboard replacements at Ormond and Hastings for United Energy, a new 66 kV substation for Hickory's data centre in Truganina in Melbourne's western suburbs, and a 275 kV switchyard and powerline for the Kidston Pumped Hydro Project in Queensland.

## UNITED ENERGY

United Energy distributes electricity to more than 700,000 customers across east and southeast Melbourne and the Mornington Peninsula with greater than 99.99% reliability. With an electricity distribution network that covers an area of approximately 1,500 square kilometres, the company is an industry leader in network technology and innovation.



United Energy launched a “Daytime Saver” trial to educate customers to shift their energy demand from traditional evening peaks to daylight hours when energy is more abundant.



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In June 2022, United Energy announced a major investment in its low-voltage electricity network to allow more rooftop solar power to be shared between homes and businesses. United Energy has close to 110,000 household customers with rooftop solar and the number continues to increase. With rooftop solar capacity in the network exceeding 550 MW – more than the output of Victoria’s largest gas-fired power generator – United Energy uses smart technology and network upgrades to improve voltages and increase hosting capacity, allowing more solar to be exported back into the grid.

Increased renewable generation is also being supported by the installation of neighbourhood batteries during the year. Eight 30 kW batteries have been installed on power poles in a project funded by United Energy and the Australian Renewable Energy Agency. In total 40 such batteries will be installed. It is the largest rollout of community-based batteries in Australia. Once completed in 2023, the fleet of batteries will store 1.2 MW of power and support up to 5,000 customers.

United Energy launched a “Daytime Saver” trial to educate customers to shift their energy demand from traditional evening peaks to daylight hours when energy is more abundant. The company is offering a \$0 network tariff to 14,000 households in Melbourne’s southeast to encourage them to set timers or use major appliances between 10am and 3pm. The goal is to test if time-based price incentives will help improve network performance and reduce energy costs for customers. The trial commenced in July 2022 and will be completed in June 2026.

United Energy partnered with electricity network Jemena for a 12-month “smart charger” trial in Victoria, Tasmania and the ACT to gain more visibility on the energy demand of electric vehicles on the grid. The smart chargers charge electric vehicles during periods when excess solar energy is available, whether it is after midnight or during the day, allowing vehicles to absorb surplus electricity and in return help to manage grid voltage.

## AUSTRALIAN GAS INFRASTRUCTURE GROUP

Australian Gas Infrastructure Group is one of the largest gas infrastructure businesses in Australia. It owns and operates gas transmission and distribution pipelines as well as storage assets to supply gas to more than two million homes and businesses across the country.

In June 2022, Australian Gas Infrastructure Group released its first Environmental, Social and Governance (ESG) report, detailing its performance and achievements for 2021, as well as sharing its vision for the future. Australian Gas Infrastructure Group aims to deliver 100% carbon-free gas no later than 2050, and with at least 10% renewable gas blends to homes and businesses by 2030. It is the company’s goal to use its existing world-class gas networks to deliver renewable gas, including renewable hydrogen and biomethane, to provide the most secure and lowest cost transition to a low-carbon future.

Australian Gas Infrastructure Group consists of Australian Gas Networks, Multinet Gas and Dampier Bunbury Pipeline.

### Australian Gas Networks

Australian Gas Networks is one of Australia’s largest natural gas distribution companies. It owns approximately 27,000 kilometres of distribution networks and 1,000 kilometres of transmission pipelines, delivering gas to around 1.4 million homes and businesses in South Australia, Victoria, Queensland, New South Wales and the Northern Territory.

Hydrogen Park South Australia (“HyP SA”) is Australian Gas Networks’ first renewable gas project. Based in Adelaide, HyP SA is also Australia’s largest renewable hydrogen facility, and one of a handful of projects in the world that deliver a renewable gas blend to customers on an existing gas network. HyP SA won the 2022 South Australian Premier’s Community Engagement Award, and received the Hydrogen Project of the Year Award at the Connecting Green Hydrogen MENA 2022 Hydrogen Future Awards in Dubai.



Australian Gas Infrastructure Group aims to deliver 100% carbon-free gas no later than 2050, and with at least 10% renewable gas blends to homes and businesses by 2030.

Launched in May 2021, the facility has been supplying 5% blended gas to more than 700 homes in the nearby suburbs, with plans to extend this footprint to over 3,700 homes in early 2023. In August 2022, HyP SA began making weekly shipments of 100% renewable hydrogen to Whyalla Steelworks and other local industry companies via tube trailer. This new supply chain replaces past shipments from Victoria.

Australian Gas Infrastructure Group is planning to develop Hydrogen Park Murray Valley ("HyP Murray Valley"), its second renewable hydrogen project. HyP Murray Valley will comprise a 10 MW electrolyser to blend up to 10% renewable hydrogen into Australian Gas Infrastructure Group's existing Murray Valley gas network to supply more than 40,000 residential, commercial and industrial customers in Albury and Wodonga in 2024.

In September, Australian Gas Networks, together with Multinet Gas Networks and AusNet, received the 2022 Energy Networks Industry Consumer Engagement Award from Energy Networks Australia and Energy Consumers Australia. Over an 18-month period, more than 40 workshops were held with residential and business customers to find out what are important to customers and how the companies can provide the services customers most value. Customers expected

the companies to continue to deliver reliable and affordable gas services while preparing the networks for a renewable gas future. The feedback was reflected in Australian Gas Networks' five-year plan which was submitted to the Australia Energy Regulator (AER).

## Multinet Gas

Multinet Gas operates a regulated natural gas network that covers approximately 1,860 square kilometres in the eastern and south eastern suburbs of Melbourne, the Yarra Ranges and South Gippsland. It serves approximately 720,000 residential, commercial and industrial customers.

Multinet Gas joined forces with Australian Gas Networks and AusNet to design and deliver a single integrated customer and stakeholder engagement programme to support the companies' Victorian Final Plans for the five-year period commencing 1st July, 2023. Feedback from customers and stakeholders on the affordability, safety and reliability of energy supplies were reflected in the five-year plan submitted to the Australia Energy Regulator.

The 18-month engagement programme won the 2022 Energy Networks Industry Consumer Engagement Award from Energy Networks Australia and Energy Consumers Australia.



# BUSINESS REVIEW



Dampier Bunbury Pipeline is the operator of the Dampier to Bunbury Natural Gas Pipeline, the principal gas transmission pipeline in Western Australia.

## Dampier Bunbury Pipeline

Dampier Bunbury Pipeline is the operator of the Dampier to Bunbury Natural Gas Pipeline (“DBNGP”), the principal gas transmission pipeline in Western Australia.

The pipeline stretches approximately 1,600 kilometres, linking the gas fields in the Carnarvon Basin off the Pilbara coast and the Perth Basin to mining, industrial, and commercial customers, as well as to residential customers in Perth via other distribution networks. The total length of the pipeline including looping and lateral pipelines is approximately 4,100 kilometres.

In April 2022, the Pluto-Karratha Gas Plant Interconnector project was completed ahead of schedule and began operation. The project involves an installation of a 3.3 kilometre pipeline to the existing DBNGP corridor along the Burrup Peninsula, allowing gas to be transported from the Pluto LNG plant to the Karratha Gas Plant for processing for both domestic and international consumption.

During the year, Australian Gas Infrastructure Group also completed a feasibility study to evaluate the potential of introducing hydrogen into its DBNGP feedstock mix.

## ENERGY DEVELOPMENTS

Energy Developments Pty Limited (“EDL”) is a leading global sustainable energy producer. It specialises in (i) producing clean electricity from low greenhouse gas emissions sources such as wind and solar, as well as waste gases from landfills and underground coal mines; (ii) producing renewable natural gas (“RNG”) from landfills, as well as (iii) providing innovative and reliable, low-carbon energy solutions in remote, off-grid regions. EDL owns and operates a global portfolio of 90 power and gas facilities in Australia, North America and Europe.

In Australia, EDL’s Coober Pedy Hybrid Renewable Power Station celebrated five years of operation in 2022. As EDL’s first major hybrid renewable power station with wind turbines, solar farm, battery and diesel power station, the project provided significant learnings to design more recent sites including Jabiru and Agnew.

EDL successfully completed the Jabiru Hybrid Renewable Power Station in February 2022. As the Northern Territory’s highest renewable penetration microgrid of its scale, the 11.4 MW solar-battery-diesel

power station replaced Jabiru's previous diesel-fuelled electricity supply and now provides the town's residents equitable access to stable, reliable and low emissions energy.

Jabiru Hybrid Renewable Power Station integrates a 3.9 MW solar farm with a 3 MW/5 MWh battery and 4.5 MW diesel generation. It draws on 100% solar to supply Jabiru during the day, and stores the excess solar energy in a battery to extend renewable energy penetration beyond daylight hours, enabling the power station to deliver more than 50% renewable energy to the isolated off-grid community.

The Jabiru project was recognised at the 2022 Asian Power Awards, winning Solar Power Project of the Year. EDL's collaborative relationship with the traditional owners of Mirrar country, the Northern Territory Government, indigenous and local businesses as well as the community throughout the Jabiru project was also acknowledged as a finalist in the Indigenous and Community Engagement Award at the Australian Mining Prospect Awards.

EDL's Agnew Hybrid Renewable Power station was also recognised in 2022, winning the Australian Mining Prospect Awards for Excellence in Environmental Management.

In October, EDL completed the Weipa Renewable Energy Project's Stage 2 solar farm and battery energy storage system, and integration to the existing Stage 1 solar farm was also completed.

In the U.S., the Wood Road Renewable Natural Gas facility celebrated its first year of commercial operations in Lansing, Michigan, in October. The facility is EDL's second RNG project. It extracts and converts about 19,000 tonnes of methane from landfill gas into approximately 870,000 mmBtu of pipeline quality RNG each year. Using RNG instead of natural gas eliminates the equivalent of about 29,000 tonnes of carbon dioxide (tCO<sub>2</sub>-e) per year as comparable fossil fuels would be combusted otherwise – this is equivalent to taking 5,700 cars off the road each year. RNG production for EDL's Tessman facility in San Antonio, Texas also commenced in March.

Further expanding EDL's portfolio of RNG projects across the U.S., Lorain and Limestone, both in Ohio, are in the final stages of construction. Once online, EDL will have more than 7 PJ of RNG capacity by mid-2023, making it one of North America's top producers of RNG from landfill gas.



In 2022, EDL's Agnew Hybrid Renewable Power station won the Australian Mining Prospect Awards for Excellence in Environmental Management.



# INFRASTRUCTURE INVESTMENTS IN NEW ZEALAND

In New Zealand, CKI has investments in electricity distribution and waste management. The Group's Wellington Electricity is the electricity distributor which serves New Zealand's capital city, Wellington, and its surrounding areas, while EnviroNZ is New Zealand's leading waste and recycling resource management company.

## WELLINGTON ELECTRICITY

Wellington Electricity owns and operates the electricity distribution network in the cities of Wellington, Upper Hutt, Lower Hutt and Porirua in New Zealand. Its network extends about 4,800 kilometres, and supplies electricity to more than 170,000 connections across the domestic, commercial and industrial sectors.

EnergyMate, a collaboration between Wellington Electricity and the Electricity Retailers' Association of New Zealand won the 2022 Outcomes Award by the New Zealand Energy Excellence Awards. EnergyMate is a programme designed to support families in energy hardship to keep their homes warm and electricity bills low. It offers families free energy coaching in regard to how they can make their homes more energy-efficient and how to get access to services such as insulation or budgeting support.

In 2022, Wellington Electricity published a 10-year Asset Management Plan to communicate its long-term investment plans that focus on delivering high levels of safety, reliability and service. The plan describes how stakeholder interests are considered and integrated into business planning processes to achieve an optimum balance between the levels of service, price, and cost-effective investments for the 10-year period from April 2022 to March 2032. The plan includes Wellington Electricity's initial views on the impact that New Zealand's Emissions Reduction Plan will have on electricity demand. The electrification of transportation and the transition away from fossil gas are expected to significantly increase electricity demand over the next 20 years. Future editions of the plan will include network reinforcement investments which are needed to deliver the demand increase.



In 2022, Wellington Electricity published a 10-year Asset Management Plan to communicate its long-term investment plans that focus on delivering high levels of safety, reliability and service.



## BUSINESS REVIEW

Wellington Electricity developed an EV Connect Roadmap to set out changes needed to support the introduction of electric vehicles (EVs) and offer managed EV charging flexibility services. The plan was developed in collaboration with New Zealand electricity sector participants. It proposed changes to New Zealand electricity sector regulations and policy to allow EVs to safely and securely connect to local distribution networks. The EV Connect Roadmap has now been adopted by an industry working group tasked with developing flexibility services (including EV charging flexibility services). The development of flexibility services has been identified as essential for allowing local distribution networks to deliver more electricity with existing infrastructure and in turn to support New Zealand's decarbonisation targets.

Throughout the year, Wellington Electricity continued to proactively engage with WorkSafe, the Commerce Commission, the Electricity Authority, the Climate Change Commission, and the Infrastructure Commission on improvements in safety and wellbeing performance, the price-quality path, market regulations, and the step changes required for sustainable asset investment to ensure customers can receive long-term benefits from a secure and affordable electricity infrastructure.

### ENVIRONZ

EnviroNZ is one of New Zealand's leading waste and recycling resource management companies. It provides waste and recycling collection, resource recovery and reuse, and disposal services to more than half a million commercial and residential customers. It also owns and manages one of New Zealand's largest disposal and resource recovery sites located in Hampton Downs. Covering an area of 360 hectares,

the Hampton Downs facility receives an estimated 40% of Greater Auckland's landfill volumes. The operation utilises state-of-the-art technology to capture and convert methane gas to electricity and turns garden and food waste into compost at its organics facility.

During the year, EnviroNZ collaborated with the New Zealand Food Network ("NZFN") to facilitate large food manufacturers and producers to donate bulk surplus food to charities and communities in need. Food that is edible is distributed by NZFN to its food hubs, while the remaining inedible items are repurposed, processed, or recycled by EnviroWaste's product recovery division. The partnership won the Organic Materials category at the WasteMINZ (New Zealand's waste industry body) Awards for Excellence in 2022.

EnviroNZ also trialled a breakthrough AI-powered hazard detection system to identify safety risks on site. EnviroNZ worked with a market-leading AI software company to develop and test a new hazard detection system which features computer vision and 5G connected video cameras. The system triggers alerts when a person is situated too close to an excavator in the waste disposal area. With 5G connectivity, data is transferred back to the cloud-based application more quickly, enabling instant response capability. EnviroNZ is now looking to extend the trial in different site situations.

EnviroNZ released its first sustainability report in 2022 which articulates the company's role in helping New Zealand shift to low-carbon, low-waste living. EnviroNZ is committed to focusing on processing and recovering waste streams, including organics and construction and demolition materials. It also has plans to establish science-based climate targets to maximise and measure the company's sustainability impact.



EnviroNZ released its first sustainability report in 2022 which articulates the company's role in helping New Zealand shift to low-carbon, low-waste living.

EnviroNZ designed the Municipal Plus digital platform specifically to help municipalities manage kerbside collection services. The app seamlessly passes information between residents and local councils, enabling reports on service request information, billing, presentation rates and contamination to be processed on a close to real time basis. Municipal Plus also won an excellence award from WasteMINZ. The system is now used by four councils and is available to over 100,000 households.

EnviroNZ opened a new generation materials recovery facility ("MRF") in Timaru for household and commercial recycling. Timaru's new MRF has a per-hour sorting and processing capacity of five tonnes of materials which include plastics, aluminium, steel paper and cardboard. It is a critical piece of regional infrastructure that expands local recycling capabilities and reduces the amount of waste that goes to landfill.

Further to working with the Dunedin City Council for a decade, EnviroNZ signed a new 10-year kerbside collection contract with the Council in November. The service is set to improve Dunedin's whole waste system and support the city's zero waste and zero carbon aspirations. With the new contract which will commence on 1st July, 2023, the company will extend waste and recycling collection services, introduce kerbside food and garden waste collection, construct and manage modern resource recovery facilities, improve options for recycling and rubbish collection, as well as expand waste minimisation education.

Cementing its reputation as a trusted municipal partner, EnviroNZ was awarded a four-year contract extension for kerbside refuse and recycling collection services with Wellington City Council. It also signed a 10-year contract with Central Otago District Council.



INFRASTRUCTURE INVESTMENTS IN

# CONTINENTAL EUROPE

In Continental Europe, CKI has investments in energy-from-waste and household infrastructure businesses. Dutch Enviro Energy owns AVR, the Netherlands' largest energy-from-waste company. In the household infrastructure portfolio, ista is a leading sub-metering player in Europe, with key markets covering Germany, France, the Netherlands and Denmark.



## DUTCH ENVIRO ENERGY

Dutch Enviro Energy owns AVR, which operates five waste treatment plants in Duiven, near the German border, as well as Rozenburg in the Port of Rotterdam area. Collectively, these plants have an energy-from-waste capacity of 2,300 kilotonnes per year. Long-term contracts are in place for both gate fees for processing waste, as well as offtake for energy produced. In addition to serving the domestic market, all AVR's waste treatment plants are accredited with "R1" status, enabling the treatment of waste imported from European Union countries. The waste products that AVR treats include biomass, industrial wastewater, municipal solid waste, commercial waste, and hazardous waste, all of which are treated and converted into energy – namely electricity, steam and heat. AVR is also one of the largest renewable district heating producers in the Netherlands.

AVR received the ISO 50001 certificate in 2022, demonstrating its commitment to continually maximize its energy and resource efficiency. The company expects its energy efficiency to improve 20% by 2030 under a systematic framework with key performance indicators. The ISO 50001 is the latest addition to the company's ISO portfolio, which encompasses ISO 14001 for environment, ISO 9001 for quality and ISO 45001 for safety.

AVR has partnered with Swedish company HaloSep AB to evaluate the possibilities of locally managing its hazardous flue gas cleaning residues. The HaloSep's solution would enable AVR in Rotterdam to recover material resources and reduce the plant's environmental footprint. The HaloSep process treats the fly ash and the contaminated acid scrubber liquid in a patented process, turning the hazardous waste into three harmless and useful fractions. The three fractions are (i) a metal fraction ready for recycling, (ii) purified salt brine that can be refined and re-used in the industry, and (iii) a non-hazardous inorganic product that can be used in construction material. If the results of this feasibility study turn out to be positive, this technology can become an integral part of the flue gas treatment process and by doing so further fill-in company's zero waste strategy.

Dutch Enviro Energy received a subsidy from the Dutch Government in May 2022 to build and operate its second Carbon Capture and Usage plant in Duiven. Preparations are underway for the construction of the facility. The goal is to have plant commissioning within five years.



AVR received the ISO 50001 certificate in 2022, demonstrating its commitment to continually maximize its energy and resource efficiency.



# BUSINESS REVIEW

## ISTA

Headquartered in Essen, Germany, ista is a leading international provider of sub-metering and related services with over 100 years of experience. ista's operations range from hardware development, manufacturing, installation and maintenance to meter reading, individual billing, data collection and processing, as well as energy data management. In addition, ista offers other services for buildings, including the provision of smoke alarms, humidity sensors, drinking water analyses, leakage detection and energy performance certificates. With a presence in over 20 countries, ista services more than 14 million dwellings with over 60 million installed measuring devices. The company's major markets are Germany, France, the Netherlands and Denmark.

In Germany, a recast of the Ordinance on Heating Cost Settlement (HeizkostenV) came into force on 1st December 2021. With this amendment, the requirements of the EU Energy Efficiency Directive were transposed into German law, and building owners thereby have to take on new energy and water related usage obligations. ista's new product EcoTrend was specially developed to cope with this latest change.

The product gives apartment residents monthly snapshots of their heating energy and hot water consumption, as well as supplementary information such as comparisons with the previous year and with reference users. Demand for this product has been high since early 2022.

In several other European countries, implementation of the standards of the EU Energy Efficiency Directive is also leading to an increase in demand for submetering services for residential properties. With the commercial real estate and public buildings sector increasingly managing its carbon footprint to realise a climate-neutral building stock, it is expected that there would be growth potential for metering technology and solutions for data analysis.

ista has been operating carbon-neutral since June 2021 and intends to become carbon-free by 2030. The company continues to monitor and measure its carbon footprint and evaluate the success of efforts carried out to achieve this goal. Actions taken include increasing energy efficiency and adopting the use of renewable energy. ista also supports certified climate protection and reforestation projects to offset unavoidable emissions.



ista continues to monitor and measure its carbon footprint and evaluate the success of efforts carried out to achieve carbon-free by 2030.



## INFRASTRUCTURE INVESTMENTS IN **CANADA**

In Canada, CKI has investments in Canadian Power, which holds a portfolio comprising stakes in Okanagan Wind in British Columbia and five electricity generation plants in Ontario, Alberta and Saskatchewan; Park’N Fly, the largest off-airport car park provider in the country; Canadian Midstream Assets, which holds oil and gas midstream assets in Alberta and Saskatchewan; and Reliance Home Comfort, a residential services company under the Household Infrastructure portfolio of the Group.



## BUSINESS REVIEW



Canadian Power completely owns Okanagan Wind which comprises two wind farms in British Columbia with a combined generating capacity of 30 MW.

### CANADIAN POWER

Canadian Power owns (i) 100% of Okanagan Wind, which comprises two wind farms in British Columbia with a combined generating capacity of 30 MW; (ii) 100% of the Meridian cogeneration plant, a 220 MW natural gas-fired cogeneration plant in Saskatchewan; and (iii) 49.99% of TransAlta Cogeneration, L.P. (“TransAlta”), which operates three natural gas-fired cogeneration plants in Alberta and Ontario, as well as a gas-fired plant in Alberta.

Favourable market conditions supported strong performance in 2022. All assets performed reliably.

### PARK’N FLY

Park’N Fly is the leading off-airport car park company in Canada, providing parking solutions to both business and leisure travellers coast-to-coast. Headquartered in Mississauga, Ontario, the company operates in seven Canadian cities – Vancouver, Edmonton, Winnipeg, Ottawa, Toronto, Montreal, and Halifax. The company offers valet and self-park options, as well as a host of other vehicle related services, such as detailing and oil changes in selected cities.

Further to the elimination of COVID-19 travel restrictions in Q1, Park’N Fly witnessed an acceleration in demand in Q2. The rebound in leisure travel had an immediate and positive impact on Park’N Fly’s business. The company’s management had made good preparation plans for the return of travel through its “Readiness Plan”, ensuring its returning labour force was available and trained to handle the anticipated volumes.

The Readiness Plan also calls for investments in technology and processes to improve the customer experience. The mobile app was further enhanced, integrating a payment option that allows for a more efficient and effortless experience for both the customer and the company.



With the elimination of COVID-19 travel restrictions, the rebound in leisure travel had an immediate and positive impact on Park’N Fly’s business in 2022.

### CANADIAN MIDSTREAM ASSETS

Canadian Midstream Assets comprises approximately 2,300 kilometres of crude oil pipelines, approximately six million barrels of oil storage capacity, as well as natural gas infrastructure assets in Alberta and Saskatchewan, Canada. The company’s portfolio of long-term contracts generates secure and predictable returns for CKI.

The construction of the Onion Lake lateral was completed and went into service in March 2022. The 8-inch blended crude and 4-inch condensate pipelines have been connected to a customer's thermal production facilities and a 15-year take-or-pay contract has been signed for the project.

Several important projects were completed in 2022 at Canadian Midstream Assets' Hardisty Terminal. The projects, which were supported by long-term contracts, will significantly improve the quality of service at the terminal. The Hardisty Terminal now has 4.9 million barrels of operational and contract storage with 14 inbound pipeline connections and 9 outbound pipeline connections.



Canadian Midstream Assets completed the construction of the Onion Lake lateral in March 2022.

## RELIANCE HOME COMFORT

Reliance Home Comfort is principally engaged in the home and commercial services sector, providing the sale and rental of water heaters, HVAC (heating, ventilation and air conditioning) equipment, water purification, plumbing, electrical, comfort protection plans and other related services primarily in Ontario, Canada. Other geographical areas which Reliance Home Comfort has operations span across Canada and the United States. The company serves over 2 million customers and has one of the largest networks of licensed technicians in Canada.



Reliance Home Comfort became a sponsor of the Canadian Home Builders' Association's Net Zero Council to champion advancement in net-zero energy housing solutions.

Reliance Home Comfort was once again presented with Canada's Top 10 Most Admired™ Corporate Cultures Award by Waterstone Human Capital in 2022. This national programme recognises Best-in-Class Canadian organisations for building cultures that drive enhanced performance and competitive advantage.

Reliance Home Comfort continued to proceed with acquisitions to expand the scope of its business. Two transactions were completed during the year; they include an HVAC company in Florida, USA and a rental asset portfolio in the Greater Toronto Area.

The company's SAP Billing system went live in the first half of 2022 after a two-year implementation and preparation period. This infrastructure upgrade will facilitate sustainable corporate growth.

During the year, Reliance Home Comfort teamed up with Google Nest to offer home builders tailored smart home products such as video doorbells, water leak detection and shutoff systems, thermostats, central control hubs, as well as Wi-Fi routers and points. In addition, the company became a sponsor of the Canadian Home Builders' Association's Net Zero Council to champion advancement in net-zero energy housing solutions. To implement this commitment, Reliance Home Comfort has been offering energy efficient bundles for electricity, gas or hybrid solutions.





BUSINESS REVIEW

INFRASTRUCTURE INVESTMENTS IN

# HONG KONG AND MAINLAND CHINA

CKI's Hong Kong and Mainland China portfolio comprises infrastructure materials manufacturing businesses and Mainland infrastructure investments and operations.



**Green Island Cement has been aggressively developing eco-friendly initiatives such as green cement products and hazardous waste treatment.**

The Group's infrastructure projects in Mainland China include toll roads and bridges in Guangdong province, namely the Shen-Shan Highway (Eastern Section), Shantou Bay Bridge, and Panyu Beidou Bridge. Further to tight control of COVID-19 measures in Mainland China, there were a marked decrease in economic activities, resulting in the Group's revenue for toll roads and bridges dropping quite substantially in 2022. Traffic flow is growing as Mainland China opens its border and economic activities gradually return to pre-COVID-19 levels. During the year, the Group allocated resources to Shen-Shan Highway (Eastern Section) to enhance the safety aspects of the operation in view of more frequent extreme weather incidents, comprehensive inspections were carried out on all the slopes along the highway.

In Hong Kong, CKI's infrastructure materials manufacturing business leads the industry in the production of cement, concrete and aggregates.

Green Island Cement ("GIC") operates an integrated cement plant in Hong Kong and three cement facilities in Guangdong Province. GIC also runs shipping and mining operations in Southeast Asia. The company encourages continuous innovation to develop competitive products and services in the market. In recent years, GIC has also been aggressively developing eco-friendly initiatives such as green cement products and hazardous waste treatment.

In recognition of GIC's outstanding performance and achievements in green management, environmental, health and safety management, green governance and sustainable procurement, the Green Council presented the Gold Award in the category of Green Management Award – Corporate (Large Corporation) to Green Island Cement at the Hong Kong Green Awards 2022. This is the fourth consecutive year that GIC has received this prestigious award.

Alliance Construction Materials Limited ("Alliance"), which operates CKI's concrete and aggregates businesses, is a joint venture between CKI and Heidelberg Cement AG.

At the height of the fifth wave of COVID-19 in 2022, when the construction materials supply chain was severely disrupted, Alliance gave its full support to the Hong Kong SAR Government to ensure uninterrupted concrete supply to expedite the construction of six urgently needed quarantine facilities.

In December 2022, Alliance started full operation of its new Sai Tso Wan 2 ("STW2") mega concrete plant in Hong Kong. Demonstrating the latest digital technologies, green features and ESG practices, this STW2 plant together with the other two concrete plants in Tsing Yi form a smart, eco-friendly and highly productive concrete supply chain to support the infrastructure development of Hong Kong on a sustainable basis. Due to its advanced green production process, the STW2 plant was given the recognition of Pioneering Organisation in Net-Zero Contribution by the Hong Kong Quality Assurance Agency.



**In December 2022, Alliance started full operation of its new Sai Tso Wan 2 mega concrete plant in Hong Kong.**