Powering the transition to a better tomorrow

ESSENTIAL ENERGY
ANNUAL REPORT 2022-23

essential energy

Providing reliable and resilient power today and helping regional customers and communities transition to a net zero economy

Essential Energy's Annual Report details financial, operational and safety performance for the 2022-23 financial year and has been approved by our Board of Directors. The contents of this report comply with the:

- *State Owned Corporations Act 1989*
- *Government Sector Finance Act 2018.*

The financial statements within this document have been audited by the Audit Office of New South Wales. The Independent Auditor's certified report is on page 61.

Chief Corporate Affairs Officer
Essential Energy
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ABN: 37 428 185 226

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31 October 2023

The Hon. Daniel Mookhey, MLC
Treasurer
52 Martin Place
SYDNEY NSW 2000

The Hon. Courtney Houssos, MLC
Minister for Finance
52 Martin Place
SYDNEY NSW 2000

Dear Ministers

SUBMISSION OF ANNUAL REPORT FOR THE FINANCIAL YEAR ENDED 30 JUNE 2023

We are pleased to submit Essential Energy's Annual Report outlining financial, operational and safety performance for the year ended 30 June 2023.

This report has been prepared in accordance with the *Government Sector Finance Act 2018* and the *State Owned Corporations Act 1989*. It is submitted for tabling in the New South Wales Parliament.

A copy will be sent to the Premier of New South Wales; the Minister for Climate Change, Energy, the Environment, and Heritage; the Minister for Water; the Auditor-General; and other significant stakeholders.

Once tabled, the report will be made available on our website – www.essentialenergy.com.au.

Yours sincerely,

Doug Halley
Chair

John Cleland
Chief Executive Officer

From the Chair and Chief Executive Officer

The past year has brought opportunities, challenges and significant achievements for Essential Energy as we continue our commitment for a better energy future.

>400

Customers and stakeholders consulted to help develop our 2024-29 Regulatory Proposal

$317M

For building network and community resilience (2024-29)

234

Apprentices, trainees and graduates in our business (at 30 June 2023)

Changing customer expectations are accelerating as the transition to net zero gathers momentum. It is important to our customers that we increase our support for renewables, replace assets with more resilient options and provide relief to communities in crisis situations. We are responding with an integrated approach to help our customers and their communities navigate and benefit from the energy transition.

Our Corporate Strategy has sustainability at its heart. Over the past year we have continued to improve our connections processes, including for renewables – from connecting household solar panels to large-scale generation facilities. Our network battery trial with AGL near Port Macquarie is increasing the amount of rooftop solar generation local customers can export to the network. This is the first of many batteries we expect to have on our network. We are also exploring ways to improve the capacity of the network without significant infrastructure investment. This will allow customers with solar panels and other renewables to export more energy into the network and enable improved efficiencies for new major connections to the network, while we maintain a safe and reliable power supply.

We are now offering Stand Alone Power Systems (SAPS) as an alternative to grid supply for some remote customers. In an Australian-first, we are trialling a hydrogen-supported SAPS, which is supplying a 100 per cent standalone solution for heritage accommodation in a National Park, and providing insights into renewable supply options in sensitive environments.

More than 200 customers from Tea Gardens, Ivanhoe and Tibooburra are using smart energy management devices to monitor their energy use and solar generation through our Smart Energy Communities trial. The devices will help these customers make informed choices about their energy use. The trial will also provide Essential Energy with a deeper understanding of emerging needs and options for affordable and reliable electricity supply.

We are supporting the adoption of electric vehicles (EVs) by making it easier for EV charging providers to connect to our network. Our online mapping tool is helping providers to see where the network has capacity for EV charging infrastructure.

We are also responding in a coordinated way to ensure we continue to provide safe and reliable power as extreme weather events become more common. 2022 was the wettest year on record for many parts of New South Wales (NSW), with widespread flooding across inland regions significantly impacting our customers and their communities. These conditions limited our ability to access the network and to complete maintenance work. Combined with the impacts of COVID-19 and bushfires, this meant we commenced 2022-23 with a major backlog of maintenance tasks. A huge effort from our employees, and in particular our field teams, took the backlog from more than 11,000 maintenance tasks on 1 July 2022 to fewer than 2,400 on 30 June 2023, and we thank everyone for their contributions.

Our 2024-29 Regulatory Proposal and Tariff Structure Statement (TSS), submitted to the Australian Energy Regulator in January 2023, outlines how we will operate, maintain and invest in our network over the five years from 1 July 2024. The proposal was informed by consultation with more than 400 people, to identify customer and stakeholder priorities. There is investment of $317 million identified for building network and community resilience to extreme weather events.

It also includes $171 million in new systems and technologies to allow customers to export and access more renewable energy, reducing greenhouse gas emissions by approximately 160,000 tonnes of carbon dioxide equivalent over the regulatory period.

The safety of our employees, contractors, customers and communities is a core value. Our safety performance continued to improve during 2022-23, with no Major Lost Time Injuries (LTIs) and decreasing Serious Claim Frequency Rate (SCFR) and Total Recordable Injury Frequency Rate (TRIFR) compared with the previous year. Reporting of near miss incidents reflected an improving safety culture, where employees trust the incident review process to identify improvements and prevent serious incidents in the future.

We continue to build an inclusive, supportive and growth-oriented workforce that reflects the communities we serve. As the skills we need are evolving, we remain committed to providing training and education. In 2023, 99 apprentices, 25 trainees and 11 graduates joined our organisation, bringing the total number in Early Talent Pathway roles to 192 apprentices, 25 trainees and 17 graduates (at 30 June 2023).

We are committed to addressing the challenges around diversity and inclusion in our industry and workforce. Energy is the third most male-dominated industry in Australia after mining and construction. Importantly, we are able to allocate 30 per cent of all Early Talent Pathway roles to female applicants, and 10 Aboriginal and Torres Strait Islander Identified roles for field operations and business support, having gained exemption under section 126 of the *Anti-Discrimination Act 1977* (NSW).

We are proud to have completed our first Reconciliation Action Plan (RAP), in November 2022, with outcomes such as growing career opportunities for Aboriginal and Torres Strait Islander people, strengthening engagement with Aboriginal and Torres Strait Islander businesses, increasing recognition of the many First Nations on whose land we work and live, and celebrating the culture, art and stories of Aboriginal and Torres Strait Islander employees and communities. We look forward to continuing our journey towards reconciliation with our second RAP.

Essential Energy is committed to improving employee benefits and gender representation in the workforce. Essential Energy's proposed policy for parental leave provides increased flexibility and will foster a more equal division of paid care, with all parents receiving 26 weeks – improving the family work-life balance and recognising diversity of family and parenting needs.

In the face of continuing societal, industry and organisational challenges over recent years – COVID-19 pandemic, bushfires and floods – it was pleasing to see our employee engagement levels continuing to grow this year, building on improvements and stability over recent years. The percentage of engaged employees increased to 40 per cent in 2023, up from 33 per cent in 2022 and 15 per cent in 2018. Essential Energy is committed to improving as an organisation that all employees can be proud of.

Building strong relationships with our communities is fundamental to our business. Our Customer Advocacy Group has been providing valuable insights for more than 25 years and, through our new Essential People's Panel, we are talking directly to residential and small business customers about their most pressing issues and concerns.

Our organisational and employee giving programs continue to support regional, rural and remote communities. The combined effort of employees and the organisation over the year provided more than $726,000 to community groups, stakeholders and charities. We particularly thank employees for their generous giving to the charities supported by our Essential Giving Program.

Despite the challenges of 2022-23, Essential Energy's financial performance continued to be strong. The net loss after tax of $8.1 million was largely due to higher depreciation and interest costs following revaluation of assets and higher interest rates and inflation.

Essential Energy carries Property, Plant and Equipment as well as Intangible Assets at fair value in its financial statements. In the 2022-23 financial year the business increased these assets by $873.7 million. The increase was driven by the delivery of the Company's capital expenditure program as well as a valuation increase of $650 million. The valuation increase is primarily a result of the regulatory framework for electricity distributors, whereby assets are indexed for inflation, which was high during 2022-23 and is likely to continue in 2023-24.

In the 2022-23 financial year shareholder distributions of $105.8 million were made, including Government Guarantee Fees and Income Tax Expense.

We sincerely thank all employees for their hard work and dedication across 2022-23, as well as Essential Energy's shareholders and stakeholders for their ongoing support. As we keep working together, Essential Energy will continue to play a leading role in helping regional and rural communities transition to a net zero economy – underpinned by an energy supply that continues to be accessible, reliable and resilient.

DOUG HALLEY
Chair

JOHN CLELAND
Chief Executive Officer

Acknowledgement of Country

Our depots and offices across regional New South Wales are located on the Country of 29 First Nations

From Wiljakali Country on the plains of Far Western New South Wales (NSW), to Ngarigo Country in the high Snowy Mountains and Bundjalung Country on the sub-tropical North Coast, and more First Nations across the diverse landscape that is regional, rural and remote NSW and parts of southern Queensland.

We acknowledge the Traditional Custodians of the lands on which our company is located and where we conduct our business, and we acknowledge all Aboriginal and Torres Strait Islander peoples across Australia.

We pay our respects to ancestors and Elders, past, present and emerging.

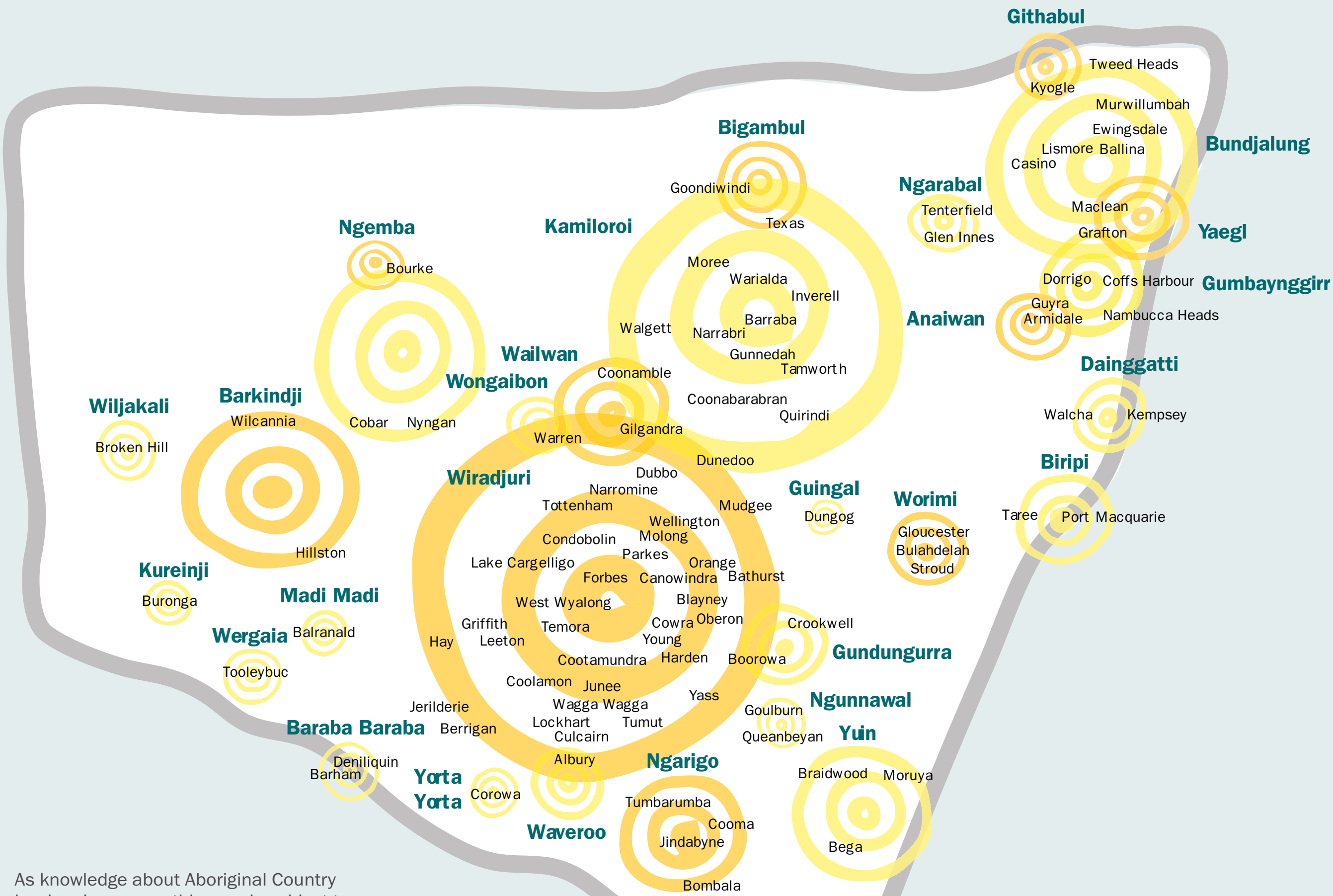
We are committed to honouring Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to the land, waters and seas and their rich contribution to society.

95%
of NSW

100
locations

29
First Nations

First Nations and Our Network Area



As knowledge about Aboriginal Country borders increases, this map is subject to change. Spellings of Aboriginal countries and locations of depots and offices within Aboriginal countries have been made from desktop research conducted on each site (town or city) and correlation with the AIATSIS map of Indigenous Australia by David R Horton (creator), © Aboriginal Studies Press, AIATSIS, and Auslig/Sinclair, Knight, Merz, 1996. This is an estimate only based on desktop research and the AIATSIS map.

This map shows the First Nations upon whose land Essential Energy's regional NSW depots and offices are located. Beyond our depots and offices, our network area overlaps with the Country of other First Nations. These additional First Nations will be added to the map in our second Reconciliation Action Plan, which is being developed during 2023.

Reconciliation progress

Our reconciliation vision is that Aboriginal and Torres Strait Islander peoples across our network area can access opportunities equal to all Australians for education, employment and social participation. We envision a united Australia where First Nations cultures are understood and valued, diversity is celebrated, and everyone can be themselves.

Our Reconciliation Action Plan (RAP) demonstrates our ongoing commitment to reconciliation and builds on the positive steps we have taken over many years to grow relationships and create opportunities for Aboriginal and Torres Strait Islander peoples.

Our RAP:

- inspires our efforts to grow mutually beneficial relationships with peoples, communities and like-minded partners
- unites our initiatives to create employment and other opportunities for Aboriginal and Torres Strait Islander peoples
- enables us to build respect for Aboriginal and Torres Strait Islander cultures, histories, knowledge and rights
- brings transparency to our reconciliation efforts and enables celebration of successes and learnings from challenges.

The plan includes sustainable programs of activities, which seek to empower social, economic and cultural wellbeing, with many opportunities for employees to get involved.

Completion of our first Reconciliation Action Plan

We completed our first RAP (2020-22) in November 2022, with achievements including:

Career opportunities

- Twenty-seven Aboriginal and Torres Strait Islander people joining our business as apprentices or trainees during 2021 and 2022
- Providing all of these apprentices and trainees with access to culturally appropriate mentoring, via the Barranggirra Mentoring Program
- Gaining exemption from the NSW Anti-Discrimination Board to advertise, designate and recruit up to 10 positions per year for Aboriginal and Torres Strait Islander people only
- Supporting four undergraduate university students through our Aboriginal and Torres Strait Islander Scholarships Program and offering a paid internship to one of the scholarship students during their final year of study
- Continuing to partner with the Clontarf Foundation, which aims to improve the education, discipline, life skills, self-esteem and employment prospects of young Aboriginal and Torres Strait Islander men
- Commencing partnering with the Stars Foundation, which supports Aboriginal and Torres Strait Islander girls and young women to attend and remain engaged at school, complete Year 12 and move into work or further study
- Listening to the experiences of Aboriginal and Torres Strait Islander employees, to inform an Employee Voice Report
- Developing an Aboriginal and Torres Strait Islander Recruitment and Retention Strategy and Professional Development Strategy.

Business opportunities

- Procuring $709,000 of services directly from Aboriginal and Torres Strait Islander businesses during 2021-22.
- Developing an Aboriginal and Torres Strait Islander Procurement Strategy.

Cultural awareness

- Celebrating National Reconciliation Week and NAIDOC Week each year
- Including Acknowledgements of Country as an important part of all major meetings, significant publications and on our website
- Recognising the many First Nations upon whose land we work and live by displaying the 'First Nations and our network area' map
- Celebrating the artwork of Michael Lambeth, Bundjalung man and powerline worker from Casino, with Michael's art featured on fleet vehicles and in NAIDOC Week celebrations
- Developing an Aboriginal and Torres Strait Islander Cultural Learning Strategy, Protocols Policy and Stakeholder Engagement Plan
- Creating learning opportunities for employees, including: cultural competency training and immersion experiences for leaders and particular business areas; access to an online cultural learning for all employees; and inclusion of Aboriginal and Torres Strait Islander cultural information, imagery and storytelling within our new employee induction module.

Reflecting on these achievements, as well as ongoing and future opportunities, we are developing our second RAP throughout 2023.

Further progress during 2022-23

Further highlights from our progress toward reconciliation included:

- Welcoming 11 Aboriginal and Torres Strait Islander apprentices and trainees to our business in January 2023; bringing the total number of Aboriginal and Torres Strait Islander apprentices and trainees to 29 and 162 employees who identify as Aboriginal and Torres Strait Islander (at 30 June 2023)
- Procuring $1.29 million dollars of services and goods from registered Aboriginal and Torres Strait Islander enterprises during 2022-23
- Partnering with Supply Nation, to target opportunities to increase spending with Aboriginal and Torres Strait Islander businesses
- Collaborating with a consultant archaeologist and Environmental Services to deliver Aboriginal heritage training for more than 100 employees involved in completing or assessing environmental impact assessments and construction
- Leaders and local employees experiencing cultural immersion on Biripi and Bundjalung Country
- Sharing educational videos with all employees for Bundjalung culture, as well as leaders' and employees' personal reflections on reconciliation and NAIDOC Week
- Senior leaders attending information sessions on the Indigenous Voice to Parliament, and making information available to all employees
- Recruiting two Indigenous Stakeholder Engagement Advisors (who commenced in August/ September 2023).

Overview

Our vision

Empowering communities to share and use energy for a better tomorrow

Our core business is supporting regional, rural and remote NSW communities by operating and maintaining one of Australia's largest electricity networks.

Our 183,000 km of powerlines cover 95 per cent of New South Wales (NSW) and parts of southern Queensland, serving more than 890,000 customers including homes, hospitals, schools, businesses and community services. Our priorities are employee, contractor and community safety and the reliability, security and cost efficiency of the network. We keep our customers' network charges as low as possible while delivering an acceptable Return on Capital Employed.

Our vision is empowering communities to share and use energy for a better tomorrow by enabling energy solutions that improve life. This means maintaining a safe and reliable network as we become an energy business for the future by implementing a whole-of-business transformation program.

Our values inform our decisions and the way we do our work, including how we treat our customers and each other. All of our employees are enabled and encouraged to make safety their own, be easy to do business with, make every dollar count, be courageous, shape the future, and be inclusive, supportive and honest.

We have about one-third the number of customers per kilometre of powerline compared with average customer density across the National Electricity Market, due to the geographic spread of our network and the absence of large urban areas.

We need more poles and wires to reach each customer, which increases our service costs. Our relatively sparsely populated networks also present significant logistical and economic challenges in terms of achieving reliability and service quality targets.

Essential Water operates in the far west of NSW, servicing a population of approximately 18,000 people. We deliver a secure water supply to around 10,500 people in Broken Hill, Menindee, Silverton, and Sunset Strip, as well as rural customers. We also provide reliable sewerage services to around 9,700 customers in Broken Hill. The network includes dams, water treatment plants, sewage treatment plants, reservoirs, water and sewage pumping stations, mains, and related infrastructure.

Key facts

890,000
electricity customers

3,280
employees

234
Apprentices, trainees and graduates (at 30 June 2023)

10,500
water customers

95%
of NSW and parts of southern Queensland

163,000km
of powerlines in designated bushfire zones

9,700
sewerage customers

183,000km
of overhead powerlines

360
zone substations

4.86
customers per km of powerline – the lowest customer density in the National Electricity Market

1,400,000
power poles

140,000
distribution substations

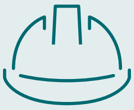
Our purpose

To enable energy solutions that improve life

Our business objectives

- Continuous improvements in safety culture and performance
- Operate at industry best practice for efficiency, delivering best value for customers
- Deliver real reductions in customers' distribution network charges
- Deliver a satisfactory Return on Capital Employed
- Reduce the environmental impact of Essential Energy where it is efficient to do so

Our values



Make safety your own

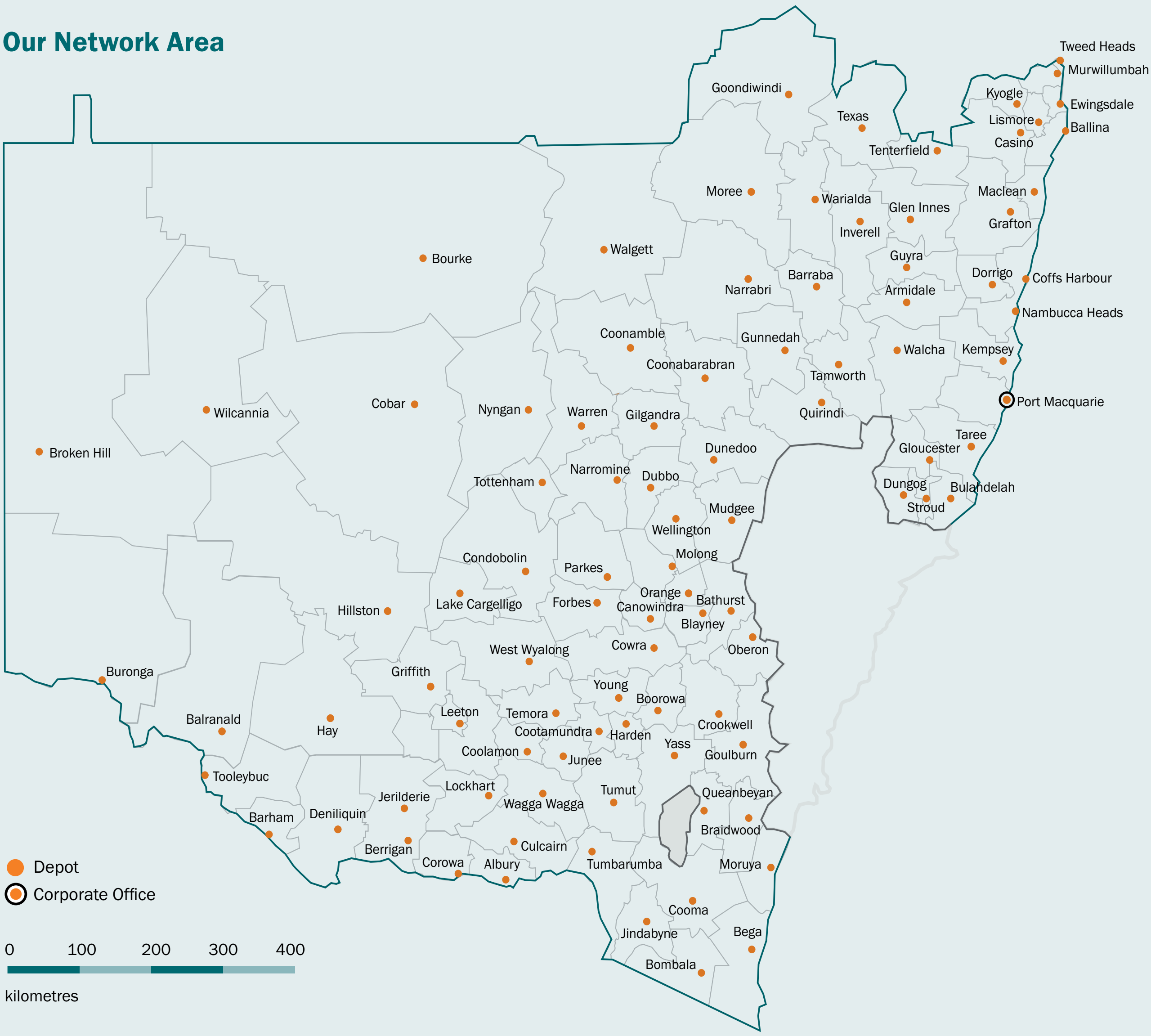
Be easy to do business with

Make every dollar count

Be courageous, shape the future

Be inclusive, supportive and honest

Our Network Area



Delivering on our corporate strategy

2023 HIGHLIGHTS

1st
Network battery trial – increasing energy export from rooftop solar to the network

4
New large-scale renewable generation facilities connected to the network

1st
Hydrogen-supported Stand Alone Power System in Australia

34
Electric vehicles, and 29 hybrid vehicles in our fleet

It has been more than a year since we embarked on refreshing the Essential Energy Corporate Strategy. Through our strategy we identify how we can best respond to the rapidly changing environment and contribute to the energy transition.

Our strategy considers the future needs of our customers in regional, rural and remote communities and sets a clear direction for optimal asset investment and use, maintaining affordable network charges and facilitating new ways for customers to connect to our network and use our services.

The Corporate Strategy consists of four pillars:

Pillar 1: Strengthen the core and enable the network – continuously improving our tools, systems and processes to better position our business for the rapidly changing energy industry.

Pillar 2: Drive connections and load – optimising our network and assets to enable more connections, increase energy throughput and build better resilience.

Pillar 3: Facilitate electric vehicle adoption – actively engaging and supporting customers as they switch to electric vehicles.

Pillar 4: Enable smart energy communities and new customer solutions – expanding our commercial activities, products and services to support rural and regional NSW through the energy transition.

Strategy progress

Over the past year much has been done to align business activities with the Corporate Strategy. Delivery teams are in place for each pillar to build capabilities and opportunities for the business to progress. We are leading discussions about locating new electric vehicle charging infrastructure and facilitating new generation connections on our network.

Our first network battery at Sovereign Hills, near Port Macquarie, is delivering a constant stream of information to help optimise a new asset class.

By creating a subsidiary, Intium, we have taken a first step to providing new services for rural and regional NSW customers.

There remains much to do. Our values and our vision – to ‘empower communities to share and use energy for a better tomorrow’ – continue to guide our decision making.

Pillar 1: Strengthen the core and enable the network

Our multi-year transformation program, which continues until June 2024, is central to pillar one of the Corporate Strategy. It is delivering more efficient and effective tools and processes across our organisation, which are benefiting us as a business and our customers.

Highlights from the past year include:

Improvements to network connections

The vital work of streamlining processes for connecting to our network continued throughout 2022-23. The Essential Connections online portal, completed in June 2023, automates the connection process across both low and high voltage connections – from basic connections, such as installing solar panels, to major connections, including new large-scale renewable generation facilities. It is now benefiting customers, Accredited Service Providers (ASPs), electrical contractors, solar retailers and installers, and other partners involved in connections projects. It is also reducing risks – for safety, asset quality, legal, contractual and financial.

Additionally, the portal is streamlining connections processes for non-contestable work, resulting in a pipeline of construction for sub-transmission switching stations and powerlines, as well as zone substations.

Our new knowledge hub is providing customers, and our customer contact centre employees, with easy access to answers for a wide range of customer enquiries.

Our industry-leading approach to developing and using a digital twin of network assets continues to improve asset management capabilities

Tailoring information access to customers' needs

Communications with customers continued to improve over the course of 2022-23. We implemented a new centralised customer contact centre system, providing customers with easy access to consistent information across different communication channels, including phone, website, chat and email. A new knowledge hub is providing customers, and our customer contact centre employees, with easy online access to useful information for a wide range of customer enquiries. A new chatbot on our website and Facebook channel is providing automated outage information to customers. The new centralised system is also automating customer sentiment monitoring and offering customers opportunities to complete post-interaction surveys. These improvements are helping customers to find answers to their questions via 24/7 self-service tools and helping us to respond to questions more quickly and consistently.

Strengthening cyber security

Our cyber security program is on track to align with the Australian Energy Market Operator's (AEMO) cyber security framework and other relevant standards. We are continuing to educate all employees about their role in helping to maintain security and tailored online training for key areas of the business. The results gained from large-scale cyber and email phishing simulations are informing our decisions around scope and targeting. We are also enhancing our processes in line with Security of Critical Infrastructure (SOCI) obligations and to align with best practice cyber security procedures.

Enterprise Asset Management solution

Over the past year, significant progress has been made on the Enterprise Asset Management (EAM) solution, with the project having completed the build phase and entered the testing phase. The vision, objectives and scope of the initiative remain consistent and aligned to the Corporate Strategy: ensuring we replace our current end-of-life system with a modern, cloud-based solution that strengthens our business capabilities across our electricity network. The new solution will manage the electricity network assets as well as the associated works that are undertaken on them over their lifecycle – providing greater and more granular data for the business to make both operational and strategic decisions in the best interests of our customers and shareholder.

Digital twin of our physical network assets

Our industry-leading approach to developing and using a digital twin of network assets continues to improve asset management capabilities. The twin is an engineering grade virtual replica of our physical electricity network. It uses artificial intelligence driven analytics to carry out large-scale analysis, to determine how the network will perform in real life, providing insights that were not previously possible.

In November 2022 we completed the addition to the twin of 10 million historical pole top images, attaching these images to the corresponding assets. The images include capture from drone, LiDAR (laser detection and ranging), asset inspections and defect identification. Benefits include easy confirmation of the as-built network without needing to visit the site. Now, new images are being automatically ingested into the digital twin, ensuring it is kept up to date.

System control improvements

In the past year, we have successfully mitigated operational risks associated with power outages by upgrading our Advanced Distribution Management System (ADMS). The work reinforced our commitment to operational excellence, enhanced the reliability of our services, strengthened our cyber security position, and ensures compliance with Independent Pricing and Regulatory Tribunal (IPART) requirements – with minimal impact to the business.

Network simulation

Our network simulator enables employees to train for low-probability, high-risk events, including for system restoration during unplanned outages.

Network investment planning and management

Our Network Investment Planning and Management system was recognised at the 2022 Copperleaf Asia Pacific and Japan Innovator Awards for workflow management. This system applies a risk-based approach to managing investment from planning through to delivery.

New

Centralised customer contact centre system – providing customers with easy access to consistent information

230V

Improving network capacity by changing from 240V – reducing the need for infrastructure investment

New

Enterprise Asset Management solution being developed – for improved strategic and operational decisions

Improved access to digital information for field crews

Our in-house built and maintained Field Portal app provides field-based employees with easy access to network and safety information and tools anywhere and anytime, via iPads and iPhones. App enhancements implemented during 2022-23 delivered improved system layout, easier navigation and better functionality. Many enhancements were the result of feedback from operational teams, so boosted the efficiency and ease of completing day-to-day tasks.

Data-driven culture

In 2022 we brought together the core data and analytics capabilities from across the business into a newly formed data and analytics team. This team has been focused on delivering innovative approaches to how we manage and use our data, enabling key insights and solutions to underpin delivery of strategic projects. These new opportunities for analytics and decision making are being leveraged across multiple business domains, including how we best optimise the network and how we respond to changing customer behaviours. New data sets and reports for network strategy, finance, human resources, procurement and other business areas are providing faster and more accurate results for decision making and regulatory reporting – underpinning the achievement of all four Corporate Strategy pillars.

Pillar 2: Drive connections and load

Battery innovation

We launched our first trial network battery in February 2023 at Sovereign Hills, near Port Macquarie. Developed in partnership with AGL, the network battery is increasing the amount of rooftop solar generation local customers can export to the network. It captures and stores excess locally produced renewable energy, for release into the network when needed.

Increased network capacity

Changing the network from 240V to 230V will improve network capacity without needing significant investment. It means customers with solar panels and other renewables can export more energy into the network while Essential Energy maintains a safe and stable power supply. Following a successful trial at the Taree zone substation during 2022-23 this change will be rolled out across the entire network over the coming five years.

Enabling greater exports and network use

By offering more flexible connection agreements to customers with loads and generation that can be ramped up or down on command, we are able to better use the existing network, allow more of our customers' generation to be exported back into the network and enable new customer connections to be delivered more efficiently. These agreements and technologies were developed during 2022-23 and are expected to grow substantially in use over the coming years.

Our first trial network battery, launched in February 2023 near Port Macquarie, is capturing and storing excess locally-produced renewable energy for release into the network when needed.

Our first 100% electric ute joined our fleet in March 2023.

Trialling zero export generation options for high voltage customers who want to minimise their greenhouse gas emissions

Enabling high voltage customers to reduce greenhouse gas emissions

We are trialling zero export generation options for high voltage customers who want to minimise their greenhouse gas emissions or electricity consumption by installing on-site green generation technologies. We aim to reduce both the cost and time needed to effect the change.

Special Activation Precincts

We continue to provide connection assistance to the Special Activation Precincts (SAPs) in Wagga Wagga, Parkes, Moree and Snowy Mountains. Each SAP will offer a range of connection options to meet demands such as manufacturing loads, waste to energy generation facilities, solar farms, energy storage systems and intensive agricultural facilities. By working closely with the NSW Government we are helping to drive economic growth and prosperity in regional NSW whilst strengthening our network.

South Jerrabomberra high voltage supply project

The South Jerrabomberra High Voltage Supply project will deliver electricity to the new South Jerrabomberra development area. We expect this to include 1,500 residential lots and a business park, industrial estate, innovation precinct, regional sports complex and new high school. The development will also house NSW's third Regional Job Precinct to create regional economic opportunities and job growth in the area. Construction commenced in March 2023 and is scheduled to be completed in 2025.

Large-scale renewable generation connections

During 2022-23, four large-scale renewable energy generation facilities were connected to our network: West Wyalong Solar Farm (90 MW), Wyalong Solar Farm (53 MW), Latitude Solar Farm (5 MW) and Sundown Pastoral Solar Farm (5 MW).

Pillar 3: Facilitate electric vehicle adoption

To support the adoption of EVs across regional NSW, we are implementing a range of programs, including:

Transitioning our fleet

Our Fleet Transition Policy has identified and assessed potential pathways to transition our light and heavy internal fleet to zero tailpipe emission equivalents. By implementing the policy we will meet our operational requirements while reducing emissions and future operating costs. As part of this, we are currently trialling new vehicles, back-to-base depot charging and actively pursuing government incentives that will expedite our transition.

We were recently a successful applicant in the NSW Government's Drive Electric NSW EV fleets incentive program, which has enabled purchase of new electric vehicles. As of 30 June 2023, we have 34 EVs and 29 hybrid vehicles, making up three per cent of our total fleet of 2,250 vehicles. Our targets are 850 light vehicles and 104 heavy vehicles moved to EVs by 2028-29 – 42 per cent of all vehicles.

Simplifying network connection for EV charging

Our key role in facilitating EVs is enabling charging providers to quickly and easily connect to our network. Over the past year we simplified the connections process in consultation with EV charging providers. We also developed an online mapping tool that shares key information with charging providers, to inform decisions about new charging locations. This tool was highlighted as the 'gold standard' for sharing network capacity for EV charging infrastructure in the Electric Vehicle Council's State of Electric Vehicles report, July 2023.

We are engaging with councils and the EV charging providers to enable innovative new charging solutions. We are working with local councils to identify the best places on our network for convenient kerbside charging at showgrounds, camping and caravan parks, tourist information centres, swimming pools, wineries and other locations that support tourism and businesses in the local economy. In a recent trial, we have permitted access to our infrastructure to enable the trial of pole-mounted chargers at Jindabyne, Hawks Nest and Byron Bay, and we are developing new standards and protocols for this new type of connection.

Innovation and integration

We are passionate about developing new electrical standards and protocols for charging infrastructure through our EV Charging Infrastructure Working Group. Through this group we are bringing together stakeholders to promote the uptake of EVs and to participate in EV smart charging and vehicle-to-grid research programs to deliver an optimal outcome for the network, charging operators and end users.

Pillar 4: Enable smart communities and new customer solutions

Stand Alone Power Systems

Stand Alone Power Systems (SAPS) provide an alternative to grid supply for fringe-of-grid, high-cost-to-serve customers. We commenced offering SAPS to some of these customers following the implementation of the national SAPS regulatory framework in late 2022. As of 30 June 2023, we have four SAPS installed, with a target of 400 by 2028-29. Once SAPS are installed, we plan to remove unused poles and wires to minimise risk of network-initiated bushfires and lower our network maintenance costs.

In an Australian-first, we are trialling a hydrogen supported SAPS in a heritage accommodation cottage in Myall Lakes National Park. It is a 100 per cent standalone system, using a solar array, Lithium-ion batteries, hydrogen fuel cells, electrolysers and water storage to power the cottage year-round. Unlike conventional SAPS, it does not rely on fossil fuels, such as diesel generators, for backup power. It is a real-world trial, running from August 2022 to February 2024. The project is a partnership with the NSW National Parks and Wildlife Service (NPWS) and GreenHy2, and will inform decisions on the best range of high-tech renewable solutions for powering sensitive environments within our network area.

Smart Energy Communities trial

As part of a two-year Smart Energy Communities trial, launched in January 2023, more than 200 customers in the NSW towns of Tea Gardens, Ivanhoe and Tibooburra are using a Wattwatchers smart energy management device and MyEnergy app to monitor their energy use and solar generation. The device and app are providing customers with near real-time information to help them make informed choices about their energy use.

This will provide Essential Energy with a deeper understanding of emerging needs and options for affordable and reliable electricity supply and services as we strengthen our existing community relationships.

Telecommunications Infrastructure

Essential Energy owns and operates a network of fibre optic cable that extends for over 1,600 km across regional NSW. These telecommunication assets support the operation of our distribution network, and enable us to share advanced fibre communications to the surrounding areas and support the renewable energy market under a joint-use arrangement.

In April 2023, we commissioned Universal Communications Group Pty Ltd to construct the West Wyalong Fibre Communications Pathway. Funded by the solar farms it serves, it comprises approximately 100 km of new pit and pipe infrastructure and more than 125 km of fibre optic cable between Temora and West Wyalong.

Essential Energy has also leveraged its vast radio tower network to support key mobile blackspot programs in rural NSW. These new partnerships are critical in unlocking greater telecommunication coverage in areas that have been historically under-served.

2024-29 Regulatory Proposal

The Australian Energy Regulator (AER) sets the revenues and prices for the distribution network services provided by Essential Energy, in accordance with the National Electricity Rules (NER).

We submitted our 2024-29 Regulatory Proposal and Tariff Structure Statement (TSS) to the AER in January 2023. This outlines how we will operate and maintain our network along with proposed capital investments, and the costs needed to do so, over the five years from 1 July 2024.

Customer consultation

Consultation with more than 400 people helped us to identify key customer and stakeholder priorities. This consultation was conducted virtually while COVID-19 restrictions were in place. When it was safe to do so, we ran face-to-face forums in Broken Hill, Dubbo, Wagga Wagga, Ballina, Taree, Inverell and Bega.

Investments planned from 1 July 2024 take these priorities into account. They include:

- $317 million to begin building network and community resilience to extreme weather events, including the strategic deployment of fireproof composite power poles, micrgrids and Stand Alone Power Systems
- $171 million in new systems and technologies which will allow customers to export and access more renewable energy and reduce greenhouse gas emissions by more than 160,000 tonnes of carbon dioxide equivalent over the regulatory period.

Our investments in electric vehicles and solar panels on depots will also provide savings in operational expenditure and a reduction in our operational emissions.

Tariff trials

We have also been working in partnership with retailers Red Energy and Discover Energy, in launching trial tariffs for low-voltage residential and small business customers. The trials were designed to test customers' response to price signals reflecting the network costs of using energy. The findings of these trials will inform our revised TSS for the 2024-29 regulatory period.

Next steps

The AER released its Draft Determination in October 2023. Essential Energy will submit a revised proposal and TSS, before the AER makes its Final Determination in April 2024.

Managing our network in a safe, reliable and affordable way

2023 HIGHLIGHTS

>8,600

Network maintenance backlog tasks, due in part to extreme weather events limiting our network access, completed during 2022-23

>120k

Poles and powerline spans inspected during our annual Pre-Summer Bushfire Inspection Program

0

Major Lost Time Injuries and decreasing Serious Claim Frequency Rate and Total Recordable Injury Frequency Rate

>240k

Calls to our Customer Contact Centre, with calls answered within 50 seconds (average)

Our team worked hard to operate and maintain the network despite the challenges of widespread rain and flooding, and deliver capital programs required to augment our network's capacity. As always, the safety and wellbeing of our team members remained paramount.

OUR OPERATIONS

Floods response

2022 was the wettest calendar year on record for many parts of NSW. Substantial flooding across much of our network area reduced our ability to efficiently access the network and our ability to complete works. During this period, we navigated many challenges, including:

- flooding along regional river systems which impacted many communities and our network, particularly in low lying areas, for many months
- inundation of our Cowra and Molong depots
- inundation of the Belatta zone substation, which impacted transformers and switchgear, requiring temporary generation to be connected while repairs were safely carried out
- network strikes following the mass migration of pelicans to Hillston, part of the Lake Brewster River system – necessitating significant line augmentation and relocation to reduce customer impact.

In response to these challenges, we brought in specialist equipment for fault and emergency responses and planned maintenance. This included helicopters for patrolling lines and identifying faults, air boats to access the network, as well as utility terrain vehicles, excavators and other tracked machinery.

Assisting South Australia

Seventy-five of our team members travelled to SA Power Networks (SAPN), assisting in the restoration of electricity supply following storms that caused the largest supply interruption since the state-wide blackout in 2016. SAPN also trained five Essential Energy team members to help reconnect flood-inundated buildings in South Australia during February and March 2023.

Network maintenance

Building, operating and maintaining one of Australia's largest electricity distribution networks requires a significant operational program, to monitor the health of network assets, undertake preventative maintenance and respond to faults and emergencies.

Unprecedented rain and widespread flooding across regional NSW throughout 2022 significantly impacted our network maintenance program. See the 'Big Hits' case study for how our teams responded to this challenge – dramatically reducing the backlog of maintenance tasks by the end of June 2023.

Inundation of our Cowra depot during the November 2022 flood.

2022-23 HIGHLIGHTS

Asset inspection

297,129
power pole inspections
up from 280,419 last year

32,251km
of powerlines inspected via drone inspections
up from 23,371km last year

67,830
drone flights by asset inspectors
up from 58,256 last year

830,429
inspection photos taken
down from 875,415 last year

Vegetation management

186,981
powerline spans with vegetation removed
up from 173,883 last year

>20,000
hazard trees removed
up from >6,800 last year

9,991
spans inspected in bushfire-related vegetation maintenance areas
up from 3,868 last year

Maintenance, capital improvement and fault and emergency

18,397
planned outages
up from 17,468 last year

24,657
unplanned outages
down from 28,119 last year

15,392
cross arm replacements
up from 14,571 last year

7,638
pole replacements
down from 8,883 last year

8,257
zone substation preventative maintenance work tasks
down from 8,566 last year

2,047
service mains overhead replacements (contractors)
down from 7,685 last year

994
construction milestones
up from 965 last year

Fleet

384,615
pre-operational fleet inspections
up from 301,208 last year

34,365,107km
travelled
up from 32,454,007 last year

Meter reading

96%
of meter reads to schedule
up from 95% last year

Big Hits maintenance program

2022-23 began with a major backlog of network maintenance tasks following a number of years with unprecedented events (bushfires, COVID-19 and floods). This backlog was addressed by focusing on completing 'Big Hit' maintenance efforts, at Coffs Harbour, Taree, Cowra, Goulburn, Moree, Gunnedah, Condobolin, Parkes, Lismore, Narrabri and Young. More than 350 field employees joined the Big Hits, plus employees providing support services. Business-as-usual maintenance work continued across our entire network alongside these focused events. As a result, we reduced the number of backlogged tasks from more than 11,000 on 1 July 2022 to fewer than 2,400 on 30 June 2023. These network maintenance works are critical to maintaining network reliability and resilience and reducing network safety risks, including bushfire risks. Importantly, there were no significant safety incidents or recorded injuries in these Big Hit efforts.

To make this possible, many of our people had to spend time away from home for many days at a time. We, and the communities they served, are grateful for their efforts.

Major projects

TABLE 1. MAJOR PROJECTS COMPLETED DURING 2022-23

DESCRIPTION	BEFORE 2022-23 (DIRECT PROJECT $)	2022-23 (DIRECT PROJECT $)	TOTAL COST (DIRECT PROJECT $)	COMPLETION DATE
Install 330/11kV transformer at Upper Tumut 330kV Switching Station (Cabramurra Supply Restoration Investments)	$12,976,296	$4,578,898	$17,555,194	02/05/2023
Casino-Mallanganee 33kV feeder 8401 replace 7.08 Cu conductor 15km	$2,142,485	$658,802	$2,801,287	28/11/2022
Orange North ZS-Transgrid rebuild of the existing 66kV Busbar-Stage 3	$1,732,056	$321,890	$2,053,946	21/04/2023
Googong Town ZS add 2nd 132/11kV 30MVA transformer	$0	$1,595,248	$1,595,248	17/05/2023

Four major projects were completed during 2022-23, with total direct project costs exceeding $1.5 million[1]. These were needed to replace ageing infrastructure, accommodate load growth and rectify damage caused by the 2019-20 bushfires.

1 Past Annual Reports have included projects with total costs exceeding $1 million as Major Projects. Changed to $1.5 million due to increased project and supply chain costs and to align with internal reporting for network investment.

Vegetation management is critical for maintaining network reliability and resilience and reducing network safety risks.

Cabramurra

In January 2020, the Cabramurra township, Selwyn Ski Resort and Selwyn communications tower all lost power when bushfires damaged much of the network in Kosciuszko National Park. We took this opportunity to reconfigure the network by installing a new transformer at Transgrid's Upper Tumut Switching Station and new lines from Upper Tumut to Cabramurra and Cabramurra to Selwyn. We also replaced the overhead 33kV powerline from Providence Portal to Selwyn Snow Resort with an underground powerline to reduce the likelihood of faults and emergencies in this harsh environment. Assets were energised and the project practically completed on 2 May 2023, with minor civil components remaining.

Casino-Mallanganee

The Casino-Mallanganee powerline, which supplies three zone substations and approximately 2,000 customers, was originally installed in the early 1950s. During 2022-23 we completed the project to replace an end-of-life 15 km section of the powerline with new overhead conductors which were also better suited to the geographic location.

Orange

Essential Energy owns and operates outdoor equipment within the Orange substation yard owned by Transgrid. To accommodate works required by Transgrid at the site, Essential Energy reconfigured the Orange North Zone Substation through the installation of new frequency injection plants, relocating and installing transformers, reconstructing supporting transmission line works and demolishing the existing compound.

Googong

In 2016, the Googong Town substation was constructed with a single transformer. Since then, load has increased significantly as the area continues to develop. Essential Energy installed a second transformer to ensure a safe and sustainable supply.

Vegetation management

Managing vegetation is critical to network reliability and public safety. Through our Vegetation Management Strategy, over the past year we continued to meet the obligations set out in the Industry Guide ISSC3 Management of Vegetation in Vicinity of Electrical Assets. This was challenging in light of heavy rainfall and flooding events during 2022.

Damaged roads and water-logged ground caused delays to our scheduled Vegetation Management Program. The rainfall also led to unusually vigorous growth of vegetation later in 2022. However, by prioritising workload and redistributing resources, we were able to inspect 75,170 km of network, trim more than 458,000 trees and remove more than 20,000 trees during the year. This work is critical for maintaining network reliability and resilience and reducing network safety risks, including bushfire risks, by reducing the risk of vegetation contacting powerlines.

We are committed to improving outcomes through collaboration. In September 2022, we facilitated a two-day workshop where we were joined by TasNetworks, Endeavour Energy, Powerlink, Evoenergy, AusNet Services, Western Power, SA Power Networks and Ergon Energy. Specialists in vegetation management and digital asset management discussed topics including best practice, future directions, and the merits of satellites and drone technologies.

Bushfire preparation

Reducing the incidence and impact of bushfires is a critical aspect of our business. During 2022-23, our annual Pre-Summer Bushfire Inspection Program included an aerial patrol of 120,000 poles and powerline spans in addition to routine asset and vegetation inspections.

We also partnered with a number of industry specialists in bushfire risk and climate change modelling to gain a deeper understanding of relative risk across the network and the potential impact of climate change. We aligned with the Energy Networks Australia Project IGNIS working group review, which developed a consistent approach to quantifying bushfire consequences across the industry. We worked to establish probability of failure models for various asset classes on our network, specifically those which might start a fire if they fail. We also engaged external specialists to conduct scenario modelling to quantify the financial and non-financial impacts of climate events on our network assets. This included understanding potential long-term physical risks if global greenhouse gas emissions reduction efforts fail to meet Paris Agreement targets.

The modelling is already informing strategies, resilience and mitigation options, including:

- revising bushfire risk priority areas within the network
- using more resilient composite power poles for identified risk-based replacements
- undergrounding overhead power lines in high bushfire risk areas
- replacing long overhead powerlines with Stand Alone Power Systems (SAPS) and microgrids in high-risk locations
- installing solar and battery backups at key telecommunications tower sites.

These initiatives were included in our 2024-29 Regulatory Proposal submission.

The annual audit of network management activities by our technical and safety regulator, IPART, found that we remain materially compliant with commitments set out in our Electricity Network Safety Management Plan. We also completed and/or progressed identified actions for improvement in accordance with our commitments.

We are now working to ensure that both vegetation management and asset inspection and maintenance services transition smoothly to revised bushfire risk priority areas. This means managing the material impact on resourcing levels as we shift work volumes between affected areas, and consulting with communities and landholders in areas where there will be a significant increase in vegetation management activities. The outcome will be a more targeted, fit-for-purpose maintenance and vegetation management program with the primary objective of reducing bushfire risk.

>75k

kilometres of electricity network inspected for vegetation management

>458k

Trees trimmed and >20,000 trees removed – to help maintain network reliability and resilience and reduce network safety risks

New

Online streetlights portal – making it easier for customers to report faults

Mobile underground voltage detection survey

Essential Energy engaged Osmose Australia to conduct a pilot survey of our underground network to detect any voltages on earthed equipment such as streetlight poles, metal fences, pillar bases and traffic signals that could result in shocks or tingles. The objective of the pilot was to assess the possible benefits of an ongoing survey program.

Early detection can help us to protect public safety by quickly rectifying any voltage defects. It can also minimise environmental impact by reducing electrical losses. A mobile unit using non-invasive electric field detection covered approximately 2,750 km of the network from Albury to Tweed Heads, from February to April 2023, and proved capable of detecting underground objects energised with less than one volt. The cost benefit analysis and risk assessment from the pilot determined an ongoing program is not required in the near future.

Streetlights

Essential Energy is responsible for the maintenance and/or billing of approximately 178,000 streetlights for 83 local government councils. The Bulk LED Upgrade Program is now complete, with 96 per cent of the streetlights we manage now LED, thanks to the more than 20,000 upgrades and spot replacements carried out in 2022-23. LED lights are more energy efficient and typically reduce running costs by 40 to 50 per cent. Work will continue through 2023-24 to convert to LED the four per cent of streetlights that were not converted under the program.

A new online portal, accessible via mobile phone or computer, is making it easier for customers to report streetlight faults via our website. Launched in July 2022, it provides an interactive map so that customers can locate and report a faulty streetlight in relation to their home or business. An opt-in function can let them know when the fault is repaired.

During 2022-23 we commenced a smart streetlighting pilot in Bathurst, to explore benefits and issues of the technology for the council and Essential Energy. At the end of the pilot in December 2023, we will have a better understanding of the technology, to inform how we move forward with councils.

Essential Water

Essential Water provides a secure water supply and reliable sewerage services to customers in the far west of NSW, with a network of dams, reservoirs, pumping stations, treatment plants and pipelines. Across 2022-23 Essential Water customers experienced above average rainfall and below average temperatures, for the third consecutive year. With an ageing workforce and a number of staff retiring, recruitment of new staff continues to be a challenge.

Independent Pricing and Regulatory Tribunal pricing review

The Independent Pricing and Regulatory Tribunal (IPART) released its pricing review for Essential Water in November 2022 for the period 1 January 2023 until 30 June 2026. For most customers, prices increased by inflation on 1 January 2023, and will continue to be adjusted in line with inflation each year to 30 June 2025. For some pipeline customers prices increased by slightly more than inflation.

We maintain and/or manage the billing for approximately 178,000 streetlights for 83 local government councils. More than 96 per cent of these now use LED lamps, which are more energy efficient and cost effective.

Stephens Creek Reservoir – part of Essential Water's network of dams, reservoirs, pumping stations, treatment plants and pipelines.

Ownership of Imperial Lake was transferred to Landcare in late 2022 – to be developed and become an important part of the Broken Hill landscape

Transfer of ownership of Imperial Lake

After decommissioning was completed in March 2022, ownership of Imperial Lake was transferred to Landcare in late 2022. The property is expected to be developed and become an important part of the Broken Hill landscape.

Impacts of flooding

The major flooding that occurred along both the Darling and Murray Rivers in 2022-23 had a devastating impact on the environment, wildlife and local agriculture. It also affected raw water quality, with oxygen levels dropping below that considered optimal for treatment. Combining a total of 1,428 ML of water from Stephens Creek Reservoir with water from the Murray enabled a more consistent treatment process for our customers. The Menindee water treatment plant, which was commissioned in April 2022, succeeded in treating the very low-quality river water during the catastrophic fish deaths.

Mica Street lightning strike

A lightning strike shut down Essential Water's treatment plant at Mica Street in Broken Hill, at 9:30pm on 20 September 2022. Essential Water crews worked overnight and throughout the following day to identify and rectify damage to the plant's Supervisory Control and Data Acquisition (SCADA) system. Crews were able to restart the plant at approximately 3pm on 21 September.

New wastewater treatment plant

During 2022-23 work began on the design for a new wastewater treatment plant at Broken Hill. The existing plant, constructed in 1938, no longer meets effluent licence conditions and repairs are no longer viable. The detailed design is planned for completion by June 2024, with construction to begin later in 2024.

Water consumption, operational works and customer contact

In 2022-23 Essential Water delivered 4,600 ML of potable water, an increase of 258 ML compared with the previous year. Delivery of raw water fell by 126 ML to 795 ML.

The Operational Works Program included:

- 826 metres of water mains renewed
- 6,421 metres of sewer mains relined
- 14,303 metres of sewer mains rodded
- 20 main bursts repaired

During 2022-23 we received 6,462 customer calls and 20 customer complaints. These were all responded to according to our customer enquiries response processes.

Essential Water financial performance in 2022-23

Essentials Water's loss before interest and tax was $0.7M, against a target loss of $14.1M. This result was driven by:

- depreciation and impairment favourable $30M due to the capital program below budget delivery
- corporate charges unfavourable $14.3M due to the capital program below budget delivery
- operating expenditure unfavourable $2M due to the under recovery of labour onto the capital program.

Essential Water invested $4.2M on internally funded capital programs in 2022-23, $21.9M below target due to two major projects which were Graziers Pipeline and Wills Street Wastewater Treatment Plant. Graziers Pipeline was delayed due to Aboriginal heritage findings. Wills Street Wastewater Treatment Plant was delayed due to ongoing COVID-19 issues; however a contractor has now been engaged to proceed with the detailed design.

OUR PEOPLE

Health and safety

Health and safety strategy

Essential Energy has a responsibility to ensure the safety and wellbeing of all employees, workers and members of the public, as far is reasonably practicable. The 2022-25 Health and Safety Strategy recognises that our safety systems and processes form a strong foundation to build upon, while focusing on mastering the fundamentals and continuously improving to embed organisational cultural change from compliance to personal safety commitment. This is enabled through the key objectives of safety mindset and leadership, serious injury prevention and improved health and wellbeing.

In 2022-23, we refined and prioritised our projects to focus on six core areas:

1. Build safety capabilities: develop safety capability and personal accountability at all levels of the organisation

We continued to expand our leadership development programs as part of our commitment to building a sustainable pipeline of leaders as well as developing capabilities we need now.

The Operations Leadership Program, launched in 2022, is building critical skills and behaviours. It includes the 'Leading Safely Everyday' module, which is the first module within the program to be delivered face to face. More than 250 frontline leaders have already completed Leading Safely Everyday across 10 locations and delivery will continue through the 2023 calendar year. The program is increasing the effectiveness of our daily depot 'toolbox talks' by improving safety mindset, culture and performance.

2. Improve system and governance: improve and simplify the Health, Safety and Environment Management system and reporting

Updates to our safety incident management tool will increase the efficiency of incident logging by improving automation and navigation, data capture capabilities and user experience. Enhanced safety dashboards will allow leaders and safety professionals to monitor performance and assurance activities. The dashboards became available from 1 July 2023.

3. Refocus critical control: build knowledge and focus on critical risks and embed application of critical controls

Network Fatal Risks (NFRs) are situations or events with the potential to result in a fatality or serious injury. We have made significant progress toward embedding critical controls to prevent fatal incidents by implementing Network Fatal Risks (NFR) Critical Controls for NFR 1 'working with electricity' and NFR4 'driving and transport'. Critical controls for the remaining five NFRs will be rolled out progressively across the business.

The updated controls will allow employees to concentrate on keeping themselves and others safe, due to their high level of competence and understanding of high-risk work tasks. The rollout for NFR1 and NFR4 was rated effective by the NFR Critical Control Framework internal audit, which also noted positive stakeholder feedback on the design and implementation of the program.

Assurance activities will test and verify the effectiveness of the implemented controls and identify areas for improvement. We are also reviewing the remaining 10 Organisational Safety Risks to update our risk assessments, validate our current controls and identify any new or enhanced controls.

4. Promote holistic health and wellbeing: deliver an evidence-based, holistic health and wellbeing framework, driven by continuous improvement

The IGNITE wellbeing program has been providing webinars with information to help employees improve their health. During 2022-23, IGNITE sessions offered to all employees attracted the highest attendance numbers since the program was launched in 2019, and we are receiving positive feedback on important learnings and delivery style. A trial starting in July 2022 added two personal consultations with a dietician and/or exercise physiologist and, following a six-month review, we decided to increase the consultations to four from January 2023. We are also offering 30-minute health checks and have built on our skin cancer screening program so that employees can now access and claim reimbursement for a range of health screens appropriate to their age and gender.

5. Prioritise public safety: raise awareness of the network hazards and prevent fatalities and serious injuries to members of the public

We are continuing to promote public safety with activities designed to increase organisational and community awareness. See 'Public safety, page 26' for details.

Fleet safety technology awarded

Our Fleet Improvement project team received the prestigious 2023 Fleet Safety Award at a ceremony held in May 2023. The Australasian Fleet Management Association (AfMA) recognised the team's achievements in rolling out the In-Vehicle Monitoring System (IVMS) across the entire fleet as part of the organisation's technology transformation and embedded safety culture. The project proactively addressed the risks associated with employees who drive more than 30 million kilometres every year.

6. Land, air and water transportation: raise awareness of land, air and water transportation

During 2022-23 we expanded and enhanced the Towards Zero road safety working group. This brings employees from across the business together to develop and deliver strategic initiatives that will improve driver attitudes, raise awareness of road safety risks and reduce driving incidents. The group helps to identify opportunities for improvement throughout the business by inserting insights and suggestions into current reporting mechanisms and enhancing the Fleet Inspection and Audit System (vehicle pre-operational check) platform.

Safety performance

Safety is our core value, and we empower our employees to 'make safety their own'. This means being prepared to protect themselves and look out for their colleagues and the communities we serve. Our goal is for conscientious safety leaders and employees to drive continuous improvement.

Safety performance continued to improve during 2022-23, with no Major Lost Time Injuries (LTIs) and decreasing Serious Claim Frequency Rate (SCFR) and Total Recordable Injury Frequency Rate (TRIFR) compared with the previous year. Reporting of near miss incidents reflected an improving safety culture, where employees trust the incident review process to identify improvements and prevent serious incidents in the future. Safety performance measures are included in the Company Scorecard (see page 29).

Two incidents involving Essential Energy employees were reported to SafeWork NSW during 2022-23. An employee lacerated their hand and needed medical treatment before returning to work in an incident classified as Business Risk (BR) 17 (Striking object with part of the body). Two employees who were present at an incident classified as BR 12 (Uncontrolled release of pressurised substance) returned to work without needing medical treatment.

There were no prosecutions under the Work Health and Safety Act during 2022-23.

Contractor safety

During 2022-23 we refreshed contractor induction and management processes for staff who engage contractors to ensure that contractors remain safe in the field.

Strengthening aerial safety

Essential Energy is Australia's first distribution network provider to adopt the Flight Safety Foundation's Basic Aviation Risk Standard (BARS) program to strengthen aerial safety for our employees and contractors. BARS is a global program, designed to provide organisations that engage contracted aircraft operators with a standard to assist in risk-based management of aviation activities.

Inclusion and diversity

Our Inclusion and Diversity Strategy 2022-23 was designed to build a workforce which reflects the communities we serve, allowing people to bring their whole selves to work every day.

Practical outcomes from the strategy during 2022-23 included:

- establishing an Inclusion Advisory Group to look at intersectionality in diversity and promote relevant programs
- establishing a corporate mentoring program to help all employees achieve their development goals
- completing our first Innovate Reconciliation Action Plan (RAP) by implementing activities that seek to empower social, economic and cultural wellbeing for Indigenous employees and the communities in which we operate. See 'Reconciliation progress', page 5, for more information
- commencing development of our second Innovate RAP
- awarding Indigenous scholarships to two university students, bringing the total number of students supported by Essential Energy to six, and establishing an internship program for an existing scholarship student
- partnering with Work180, who help raise the bar for women in the workplace
- promoting the development of a cohort of up and coming female leaders by sponsoring their attendance at a women in leadership summit

- joining the Champions of Change Energy coalition to advance women in leadership and achieve gender equality in the workplace
- sourcing a supply of maternity personal protective equipment (PPE) clothing for our female field workers
- delivering disability in recruitment training to the recruitment team
- conducting LGBTQIA+ awareness training
- developing an online Autism Awareness resource pack
- celebrating National Reconciliation Week, NAIDOC Week, International Women's Day, Go Red for Dyslexia, International Day of People with a Disability, World Autism Awareness Day, Wear it Purple Day, World Pride, Wagga Wagga Mardi Gras, Diwali and Harmony Day.

We plan to extend the current comprehensive Unconscious Bias and Conscious Inclusion program in early 2024 as part of a comprehensive organisational program.

We are also committed to a gender diverse workplace with a female participation rate of at least 30 per cent. To support this, we sought and were granted exemption under section 126 of the *Anti-Discrimination Act 1977* (NSW). This permits us to allocate 30 per cent of all Early Talent Pathway roles to female applicants. This adds to the 10 Aboriginal and Torres Strait Islander Identified roles granted exemption in 2022. We will advertise for 20 Female identified apprentice roles and 10 Aboriginal and Torres Strait Islander identified trainee roles across field operations and business support services, to start working with us in 2024, as well as three targeted STEM (science, technology, engineering and mathematics) graduate opportunities.

We are working to develop and finalise an Inclusion Action Plan during 2023-24, with inclusion actions for all people, including those living with a disability.

Employee engagement

In June 2023, 77 per cent of Essential Energy employees completed the annual engagement survey to share their opinions, comments and suggestions on ways to make Essential Energy a better place to work. The participation rate remained consistent with previous years; however, it represented a greater number of employees, with 2,617 people having their say (up from 2,411 in the 2022 survey).

The percentage of engaged employees increased by 7 per cent, to 40 per cent.

This reflects a higher engagement index than the Gallup Australian database (20 per cent) and global database (23 per cent), and on trend, given improvements between 2022 and 2023 results are seen across all Gallup segments.

The overall engagement score was 3.89 (out of five), another increase from 3.75 in 2022.

Feedback included 3,373 individual comments – providing great insight into areas of strength and opportunity, as well as employee feedback regarding health and wellbeing support.

These growing levels of engagement are encouraging and build on improvements and stability over recent years, with the percentage of engaged employees increasing from 15 per cent in 2018 to 40 per cent in 2023.

Essential Energy remains committed to improving as an organisation that all employees can be proud of.

Focus areas highlighted via the survey include:

- clarity of expectations
- prioritise engagement for high performing and high potential employees
- spotlight safety conversations and activities
- talent attraction and retention
- leadership development coaching to support inclusion and diversity
- focus on wellbeing through re-evaluating resources and workload and creating development opportunities
- rethink work redesign and flexibility
- recognition for individuals and teams.

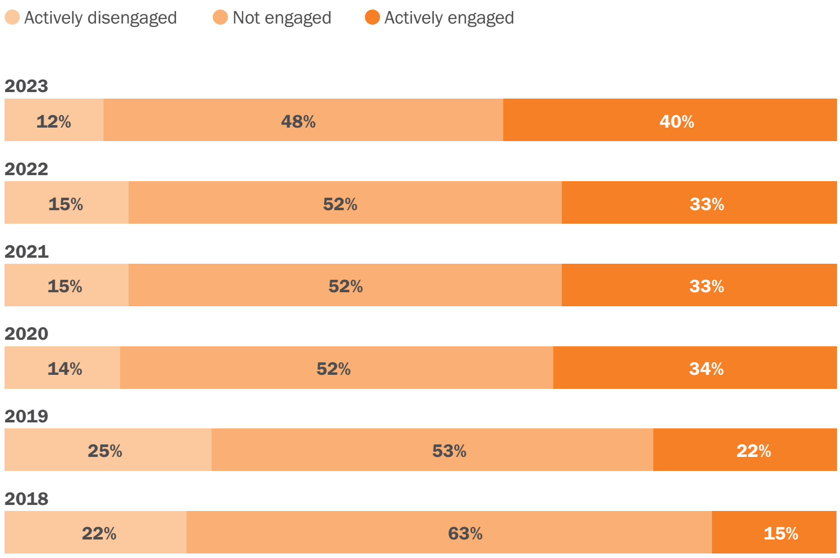
Employee relations

The Essential Energy Enterprise Agreement 2021 and the Essential Energy Far West (Electricity) Enterprise Agreement have a nominal expiry date of 30 June 2024. Both enterprise agreements were renegotiated during 2021-22. The Essential Energy Enterprise Agreement 2021 came into operation on 11 February 2022 and the Essential Energy Far West (Electricity) Enterprise Agreement 2021 came into operation on 22 June 2022. Both enterprise agreements are for a three-year period and provide for a 3 per cent increase to wages and allowances in year one, applying from 1 July 2021. A further 2.5 per cent increase in wages will apply in years two and three, with an additional superannuation increase of 0.5 per cent in both years.

77%

of employees participated in the 2023 employee engagement survey

ENGAGEMENT RESULTS



The Essential Water Enterprise Agreement 2022 came into operation on 25 January 2023 and has a nominal expiry date of 29 October 2025. This enterprise agreement provides for a 3.5 per cent increase to wages and allowances in year one, applying from 29 October 2022, with further 3.5 per cent increase to wages and allowances for proceeding years, occurring on 29 October 2023 and 29 October 2024.

Training and development

New apprentices, trainees and graduates

In February 2023 Essential Energy welcomed 99 new apprentices, 25 trainees and 11 graduates. These Early Talent Pathway roles contribute to our ongoing commitment to building a workforce reflecting the customers and communities we serve while ensuring we have the organisational capability to meet the challenges of the evolving energy industry.

The new apprentices are undertaking a four-year program of formal training combined with on-the-job experience. They include 77 powerline workers, nine cable jointers, 10 zone substation electricians and three fleet technicians.

Trainees are undertaking a 12-month training program. They include 19 asset inspectors, two vegetation officers, two warehousing and one field operations trainees.

The size and scope of our graduate program continues to grow, with this year's recruits drawn from cyber security, software development, infrastructure and operations, operational technology, human resources, finance, data and engineering disciplines. Their three-year program includes rotational placements in functional areas of the business as well as an 18-month development course through Engineers Australia.

As of 30 June 2023, the total number of people in Early Talent Pathway roles was 192 apprentices, 25 trainees and 17 graduates.

Leadership development

In 2022-23 more than 550 employees participated in a range of leadership development programs, including Ready to Lead, Frontline Leadership and middle-level or Senior Leader programs. We also launched a new program for Operations Leaders with a 'Leading Safely Everyday' module designed to increase field-facing safety mindset, engagement and performance. See 'Health and Safety Strategy', page 21 for more information.

Employee development

Providing learning opportunities that engage and inform our employees is central to our culture of achievement and growth. This year we continued to offer 'Learn & Grow', self-paced learning and virtual classroom workshops designed to develop behaviour, leadership and digital skills.

We also introduced a professional development assessment platform to help employees gain a better understanding of their strengths and then target their development to align with their career goals.

Supported Study

Essential Energy provides financial support for formal study. We cover the full cost of role-based progression and provide a variable amount for career development.

During 2022-23, 156 employees continued their study and 59 completed a course in qualifications ranging from Australian Qualifications Framework (AQF) 3 (Certificate III) to AQF 9 (Masters degree). Of the current students, 64 (40 per cent) are studying Electrical or Power Engineering and 31 (20 per cent) are studying Business or Commerce, which are core skills for the organisation. A further 11 (7 per cent) will gain qualifications in the increasingly important fields of IT and data-related subjects.

Network Training and Assessment

The critical work of authorising people to work on or near the network continued throughout the year for approximately 1,800 Essential Energy employees, 2,800 external Accredited Service Providers (ASPs) and 790 Contract Service Providers (CSPs). We conducted annual regulatory refresher training, switching refresher training and role-specific initial training and induction courses for approximately 3,500 internal participants. We are reviewing our authorisations processes to align more effectively with future initiatives and our evolving industry.

Partnering with 'Heart of the Nation'

For National Heart Week 2023, in May, Essential Energy joined the fight against heart disease – Australia's biggest killer – with a campaign to promote and reinforce the lifesaving potential of automated external defibrillators (AEDs) in the event of sudden cardiac arrest. We are well placed to do this as AEDs are considered a vital piece of equipment in our depots, offices and vehicles when crews are working on live powerlines.

We are partnering with Greg Page, founder of Heart of the Nation and the original yellow Wiggle, to raise awareness of cardiac arrest and the value of AEDs within our organisation and the communities we serve.

We are bringing our Customer Strategy to life by finding ways to better understand our customers and incorporating this information into our everyday decision making

OUR CUSTOMERS AND COMMUNITIES

The Energy Charter

The Energy Charter is a whole-of-sector initiative to deliver more affordable, reliable and sustainable energy for all Australians.

We are involved in the following industry-wide projects:

- Cost of Living Supports
- Disaster Resilience
- First Nations Engagement
- Knock to Stay Connected
- Know Your Customers and Communities
- Landholder and Community Special Licence
- Life Support.

As a signatory to the Charter, we are also committed to embedding a customer-centric culture based on the Charter's five principles, and publicly disclosing how we are delivering against these principles. Our 2022-23 Disclosure Statement, which details our performance, was shared with our Customer Advocacy Group and Essential People's Panel for review and published on our website in September 2023 for public comment.

Customer strategy

We are bringing our Customer Strategy to life by finding ways to better understand our customers and incorporating this information into our everyday decision making.

To support the strategy, we have:

- engaged with customers and stakeholders to develop a new incentive scheme for customer service performance included in our 2024-29 Regulatory Proposal
- committed to sharing more customer stories across the organisation to help our teams understand customers' concerns
- developed a new data model that will build a deeper understanding of how customers are using our products and services; will enable improved, customer-focused decision making; and will improve our level of service by helping us to tailor our offerings to customer needs
- started to develop a new approach to gathering customers' perceptions of Essential Energy's performance via an automated survey and sentiment capture program.

Over the past year, the increasing cost of energy, combined with general cost of living pressures, had a significant impact on customers and our customer metrics. Our Customer Satisfaction Index moved from 80.7 (quarter four 2021-22) to 75.9 (quarter four 2022-23) across the course of 2022-23, with customers citing affordability as a key concern.

Customer meter reading service

Following a successful trial, we are now offering a 'read my meter' option to customers whose property is difficult to access. This enables customers to submit their own meter readings via a secure web-based application.

Customer service performance

National Energy Customer Framework

Essential Energy is committed to improving customer service and safety as defined by the National Energy Retail Law and Rules. In 2022-23, no immediate nor quarterly reportable breaches were reported to the Australian Energy Regulator (AER).

Customer Contact Centre performance

Our Customer Contact Centre received 244,222 calls during 2022-23. On average, these were answered within 50 seconds, an improvement on 61 seconds achieved in the previous year. 54 per cent of customers used our self-service automated interactive voice response (IVR) to obtain outage information during the year.

Translation services

During 2022-23, we provided interpreting services to two customers in two different languages at a total cost of $58.08. No employees use their language skills in their daily roles or receive the NSW Community Language Allowance Scheme (CLAS) allowance.

Complaints to the Energy and Water Ombudsman

During 2022-23 the Energy and Water Ombudsman NSW received 2.8 complaints per 1,000 customers in relation to Essential Energy. This is a decrease from 3.0 in 2021-22 and 3.6 in 2020-21.

Customer Advocacy Group

Our Customer Advocacy Group (CAG) has been helping us to support regional communities for more than 25 years. Meetings, held four times each year, provide an open forum for discussion. Members provide feedback and insights directly to our business decision makers and relay information back to their constituents, organisations and communities.

Members represent:

- residential, rural and remote customers
- primary producers and small business, industrial and commercial customers
- low-income households, vulnerable customers, senior citizens, and culturally and linguistically diverse communities
- local government.

CAG organisations include:

- Public Interest Advocacy Centre (PIAC)
- NSW Farmers
- Cotton Australia
- Energy Users Association of Australia (EUAA)
- Business NSW
- Caravan & Camping Industry Association NSW
- Ethnic Communities Council NSW (ECCNSW)
- Country Women's Association
- Community representative, rural/remote customers
- Local Government NSW
- Tenants' Union of NSW

We are seeking representation from Aboriginal and Torres Strait Islander peoples and environmental, advancing technologies and renewables groups.

Essential People's Panel

The Essential People's Panel is a new customer council which allows Essential Energy to engage directly with customers on issues relevant to residential and small business customers such as pricing and affordability, reliability and resilience, and customer service and communication. Panel members include a diverse group of customers from across our network footprint. The panel met for the first time in July 2023 and will meet regularly throughout the year.

The Panel complements our existing Customer Advocacy Group.

Partnering with local councils

Scheduled monthly meetings provide an opportunity for us to strengthen our relationships with the 86 local government councils across our network area. We hear directly from the executive management teams and mayors about potential areas for improvement and discuss how we can work together more effectively for our communities. Across 2022-23 we held scheduled monthly meetings with 39 councils.

Public safety

Essential Energy is committed to ensuring that everyone can live and work safely around our electricity network.

As part of the Public Safety Strategy, our Public Electrical Safety Awareness Plan aims to raise public awareness about safety hazards associated with the electricity network, focusing on seven at-risk groups: general public; aviation; transport; agribusiness; building; emergency services and public authorities including local councils.

During 2022-23 we approved a Public Safety Treatment Plan after a formal risk assessment identified agribusiness and general public incidents as key areas of concern. This plan defines accountability for strategic actions, highlights ways to improve existing controls and identifies three new controls to reduce public safety risk.

The number of public safety incidents in 2022-23 fell by 12.4 per cent compared with the previous year, reversing a three-year upward trend. Reported injuries fell by 27.5 per cent compared with the previous year and 7 per cent over the previous three years. Incident numbers in 2022-23 were down by 5.5 per cent in general public, 8.7 per cent in agribusiness, 25 per cent in transport and 46 per cent in aviation.

Agricultural safety

To gain a better understanding of how agricultural workers perceive and respond to electrical risks we are working with the Centre for Work Health and Safety, the research arm of SafeWork NSW, on a project specific to the agricultural industry. These insights will help Essential Energy and the broader electricity industry to reduce incidents where agricultural machinery comes into contact with the network, by developing effective technical and educational interventions. Field work began in July 2023 and the findings are due in July 2024.

In line with the Public Safety Treatment Plan, targeted messaging and education were shared with the agribusiness community during 2022-23.

This included entering a partnership with the NSW Farmers Association to deliver electricity safety messaging and connect directly with the agribusiness community.

Additional campaign activity was delivered via industry-specific digital and print channels, such as The Australian Farmer and NSW Farmguide. Our teams also attended industry events to share important safety information with communities and hold discussions on the ground. Messaging focused on safety around the network during grain and cotton harvest and the installation of aerial markers on power lines through our free installation initiative.

We also continue to maintain our ongoing partnership with Aerial Application Association of Australia to promote aerial markers, which benefits the agribusiness and aviation at-risk groups.

Loss of supply risk management

The Energy Network Australia (ENA) Asset Management Council, chaired by Essential Energy, partnered with CSIRO in 2021 to investigate the community safety impacts of loss of supply at times of heightened fire-risk conditions. CSIRO concluded that there was insufficient data to develop a quantitative model and proposed development of a prototype evaluation methodology. The working group agreed and work is expected to recommence in August 2024. The outcomes will help network operators balance employee, public and bushfire safety during these conditions.

12.4%

Reduction in the number of public safety incidents compared to previous year

890

Schools registered to participate in Electricity Safety Week 2022

80

Community groups shared $250,000 through our Community Choices support program

Safety video for emergency responders

In 2022, Essential Energy, Ausgrid, Endeavor Energy and Transgrid collaborated on an Emergency Services Electrical Safety video which provides information on how to remain safe around the electricity network during emergency response. The video was released on the Essential Energy YouTube channel in February 2023 and is helping to educate emergency responders, including the Rural Fire Service, State Emergency Service (SES), Fire and Rescue NSW, NSW Police and NSW Ambulance.

Summer safety campaign

During 2022-23 we ran a summer safety advertising campaign to share important warnings and messages on how to remain safe around our network during severe weather conditions. The dynamic execution of key creative messaging triggered by dangerous/extreme weather conditions was delivered via digital Apps Weatherzone and Willyweather to affected communities. More than one million advertising impressions were served between December 2022 and March 2023.

Electricity Safety Week

Electricity Safety Week, held annually in September, raises awareness among primary school students of electricity hazards and teaches students how to be safe around electricity. Schools are provided with curriculum-aligned teaching resources, developed in collaboration with the Department of Education. In September 2022, 890 schools (98 per cent of primary schools from our network area) registered for the program.

Giving to community groups, charities and stakeholders

We empower local communities across our network area through a range of funding opportunities. Organisational and employee giving supports community groups, charities and stakeholders.

The Essential Communities Sponsorship Program includes: Community Choices; Community Support; and the Essential Giving Program.

We also partner with stakeholders and community organistaions and provide scholarships for Aboriginal and Torres Straight Islander students.

A total of $726,973 was provided to more than 130 community groups, stakeholders and charity organisations during 2022-23.

Community Choices

Community Choices provides charities, not-for-profit groups and community groups from across our network area with up to $5,000 to boost their activities. Groups are nominated by the community and selected via online voting that is open to all members of the public.

The 2023 program saw 510 nominations received and almost 170,000 votes were submitted. Funding was awarded based on the highest number of votes within 20 geographic zones and two funding categories:

- standard zone funding – first to third place allocations in each of the 20 zones, ranging from $2,750 to $5,000
- small communities funding – one $1,250 funding allocation for each of the 20 zones for groups who reside in a community with less than 10,000 people.

A total of $250,000 was shared by 80 community groups.

Our workplace giving program, the Essential Giving Program, supports eight charities. Employees and the organisation have been donating to one of these charities, the Westpac Rescue Helicopter Service (WRHS), for more than 20 years. In June 2023, employees and management joined WRHS representatives to celebrate this giving.

During 2022-23 we gave more than $726,000 to more than 130 community groups, charities and stakeholders.

Partnerships with community organisations

We support Uniting Financial Counselling (UFC) to deliver an Energy Support Program focused on tailored, one-on-one advice and assistance to electricity customers in regional NSW who are struggling with issues of energy affordability. During 2022-23 we provided $60,000 to UFC.

We partner with the Clontarf Foundation, which aims to improve the education, discipline, life skills, self-esteem and employment prospects of young Aboriginal and Torres Strait Islander men. We provided $40,000 to Clontarf during 2022-23.

We also partner with the Stars Foundation, which supports Aboriginal and Torres Strait Islander girls and young women to attend and remain engaged at school, complete Year 12 and move into work or further study. This partnership did not involve funding during 2022-23.

We are a partner of the Thriving Communities Partnership, which seeks to contribute to and implement policies, practices and initiatives that result in tangible improvement in the lives of people at risk of experiencing vulnerability. The annual membership is $10,000.

Community Support

Community Support provides funding to community groups that make a difference in their local communities. This year $59,750 was provided to 33 groups across our network area.

Essential Giving Program

Essential Giving Program (EGP) is our workplace giving program, supporting eight charity partner organisations: Garvan Institute; Variety Children's Charity; Lifeline; Can Assist; Westpac Rescue Helicopter Service; ozED (Australian Ectodermal Dysplasia Support Group); the Children's Tumour Foundation; and Royal Far West.

Employee EGP donations through regular pre-tax payroll deductions are matched by Essential Energy. In 2022-23, $73,364 was donated by employees. Dollar matching included an additional donation to each charity partner, for a total donation by Essential Energy of $146,728.

The EGP also provides dollar matching for employee-initiated fundraising (up to $500 per request), with applications reviewed by an employee and management representative committee. $20,988 of employee-initiated fundraising was supported, plus $2,375 dollar matched by Essential Energy.

The EGP company total in 2022-23 was $243,455.

TABLE 2. ORGANISATIONAL AND EMPLOYEE GIVING TO COMMUNITY GROUPS, CHARITIES AND STAKEHOLDERS DURING 2022-23

COMMUNITY CHOICES	
Donations to 80 groups#	$250,000
COMMUNITY SUPPORT	
Donations to 33 groups	$59,750
ESSENTIAL GIVING PROGRAM	
Employee donations to charity partners	$73,364
Dollar matched payments and one-off donations to charity partners	$146,728
Employee initiated fundraising	$20,988
Dollar matching for employee initiated fundraising*	$2,375
CORPORATE SPONSORSHIP	
Regional Australia Institute – Regions Rising National Summit	$25,000
Royal Far West Healthy Kids Bus Stop Sponsorship	$5,000
Can Assist – Can Do The Distance challenge	$8,000
PARTNERSHIPS WITH COMMUNITY ORGANISATIONS	
Uniting Financial Counselling	$60,000
Clontarf	$40,000
Thriving Community Partnership	$10,000
SCHOLARSHIPS	
Aboriginal and Torres Strait Islander Scholarships	$24,768
Scholarship for female University Student to attend the Australian Clean Energy Summit	$1,000

\# Paid in August 2023
* Maximum of $500 dollar matching per request

Company scorecard

The Company Scorecard includes performance against targets in the Essential Energy 2022-23 Final Statement of Corporate Intent, along with performance for other key metrics.

AREA	MEASURE	TARGET	OUTCOME
Safety	Major Lost Time Injury Frequency Rates (MLTIFR)	0.3	0.0
	Serious Claim Frequency Rate (SCFR)	≤3.5	3.1
	Total Recordable Injury Frequency Rate (TRIFR)	≤13.5	11.5
	High Potential Incident Frequency Rate (HPIFR)	Monitor Only	3.8
People	Employee Culture Index	≥3.82	3.9
Network delivery	Network Program Value Delivered	≥100%	94.3%
Transformation	Transformation Executive Level Milestones Achieved	≥100%	88%
Customer experience	Customer Satisfaction Index	≥79%	76%
	System Average Interruption Duration Index (SAIDI) (minutes)	≤211	222
Regulatory	Material Reportable Regulatory Breaches	0	0
Financial	Return on Capital Employed (ROCE)	≥3.1%	3.3%
	Operating Expenditure	≤$905M	$936.4M
Corporate strategy	Strategy Executive Level Milestones Achieved	≥100%	87%
	Sustainability Strategy Reporting Framework Approved	100%	100%

2023-24 price increase

Essential Energy's proposed price increase for 2023-24 was approved by the AER and took effect on 1 July 2023. If passed on in full by retailers, customers' electricity bills will increase by approximately 3.75 per cent for their overall electricity bill. Depending on their tariff types, typical residential customers may see an increase in network charges of between $18.38 and $22.50 per quarterly bill.

Driven primarily by inflation, the increase was lower than the Consumer Price Index (CPI) of 7.83 per cent in place when the proposal was submitted to the AER in December 2022.

We encourage customers to speak to their retailers if they need help with paying their electricity bill following the increase, and to shop around for the best deal.

Financial impacts of unforeseen events

The northern NSW floods caused significant disruption and damage to our distribution network in early 2022. As the cost of repairing and replacing damaged assets were unforeseen, these were not included in our 2019-24 revenue determination by the AER.

In December 2022, we applied to the AER for permission to pass through some of the extra costs to our customers. We kept these to a minimum and excluded items that could be covered by insurance.

In March 2023, the AER approved recovery of an additional $14 million via distribution network charges starting 1 July 2023. As a result, a typical residential customer will pay an extra $2 for that year, and a typical small business customer an extra $4.

SUSTAINABILITY

Supporting regional communities to transition to a net zero economy

2023 HIGHLIGHTS

>31%

of total network load from renewables in 2022-23

96%

of the 178,000 streetlights we manage and/or bill for are now LED (more energy efficient and lower emissions)

$1.29M

of goods and services procured from registered Aboriginal and Torres Strait Islander businesses during 2022-23

>$726K

Provided to >130 community groups, stakeholders and charity organisations through our community programs

An energy business for the future must be environmentally, economically and socially sustainable. We continue to evolve our approach to meeting these objectives, and respond to emerging expectations around sustainability performance and reporting.

Sustainability Strategy

Our Sustainability Strategy guides our approach to generating positive value for our customers, our community and our people. We are committed to supporting the transition to a net zero economy while continuing to provide an accessible, reliable and resilient energy supply.

The strategy integrates with our Corporate Strategy and builds on a strong foundation of sustainability-related activities. Over the past year it has helped us address our most pressing sustainability issues.

Our sustainability pillars

Pillar 1. Responding to climate change

Our commitments

We are facilitating the transition to net zero by optimising network connections and decarbonising our operations. We are supporting electrification, including electrifying our fleet and leveraging renewables.

As climate events are increasing in frequency and severity, our first priority is to minimise disruptions during a crisis by building resilience, future-proofing assets and providing our customers with alternate energy solutions.

Outcomes delivered

The number of renewable generation connections to our network continued to grow significantly over the past year. Renewables delivered more than 31 per cent of total network load – continuing the year-on-year growth over the past decade (see figure 1). The total capacity of connected large-scale renewables was 1.35 GW, and 1.56 GW for small-scale renewables.

Growth is forecast to continue, with 1.8 GW from large-scale and 2.4 GW from small-scale renewables by 2029-30.

We deployed Australia's first hydrogen-based Stand Alone Power System at a heritage accommodation cottage in the NSW Myall Lakes National Park, which reduced greenhouse gas emissions by an estimated four tonnes in less than a year. We installed our first large network battery in the Sovereign Hills area of Port Macquarie to increase the amount of rooftop solar generated energy local customers can export to the network.

Changing the network from 240V to 230V will improve network capacity without significant investment in new infrastructure. This will enable customers with solar panels and other renewables to export more energy into the network while we maintain a safe and stable power supply. Also, the digital twin of our physical network is enabling us to identify parts of the network that can support new major connections, including for renewable energy generation, without the need for significant network investment.

See 'Pillar 2: Drive connections and load', page 11 and 'Pillar 4: Enable smart communities and new customer solutions, page 13 for more details.

In 2022, substantial flooding across much of our network gave rise to many challenges by limiting our ability to access the network and undertake maintenance works. We responded by bringing in specialist equipment for both fault and emergency responses and planned maintenance, including helicopters, air boats, utility terrain vehicles, excavators and tracked machinery. For more information see 'Floods response', page 15.

We have increased our assessment of the risks and opportunities of climate change across the entire network and on the business, including reporting in line with Task Force on Climate-related Financial Disclosures (TCFD) – see page 40 for details. We now have a baseline for our Scope 3 emissions and are continuing our work on a decarbonisation pathway, and we have forecast our total emissions under different scenarios.

Over the past year we simplified the connections process in consultation with EV charging providers and developed an industry-leading online mapping tool to help providers make informed decisions about new charging locations.

We are trialling new EVs, back-to-base depot charging and actively pursuing government incentives that will expedite our transition to electric fleet vehicles.

In a new trial, we have permitted access to our infrastructure to enable the trial of pole-mounted chargers at Jindabyne, Hawks Nest and Byron Bay, and we are developing new standards and protocols for this new type of connection.

See 'Pillar 3: Facilitate electric vehicle adoption', page 12 for more details.

We are also running employee education sessions on sustainability and climate change.

GROWTH IN RENEWABLES CONNECTIONS OVER THE PAST YEAR

Large-scale renewable connections (as at 30 June 2023):

46
total connections
4 new connections in 2022-23

1.35 GW
total capacity
↑ 12.5% increase since 2021-22

2,776 GWh
delivered
↑ 13.4% increase since 2021-22

21.9%
energy delivered of total network load
↑ 2.2% higher than 2021-22

Small-scale renewable connections (as at 30 June 2023):

257,848
total connections
↑ 10.4% increase since 2021-22[2]

29.0%
of total customers
↑ 2.5% increase since 2021-22

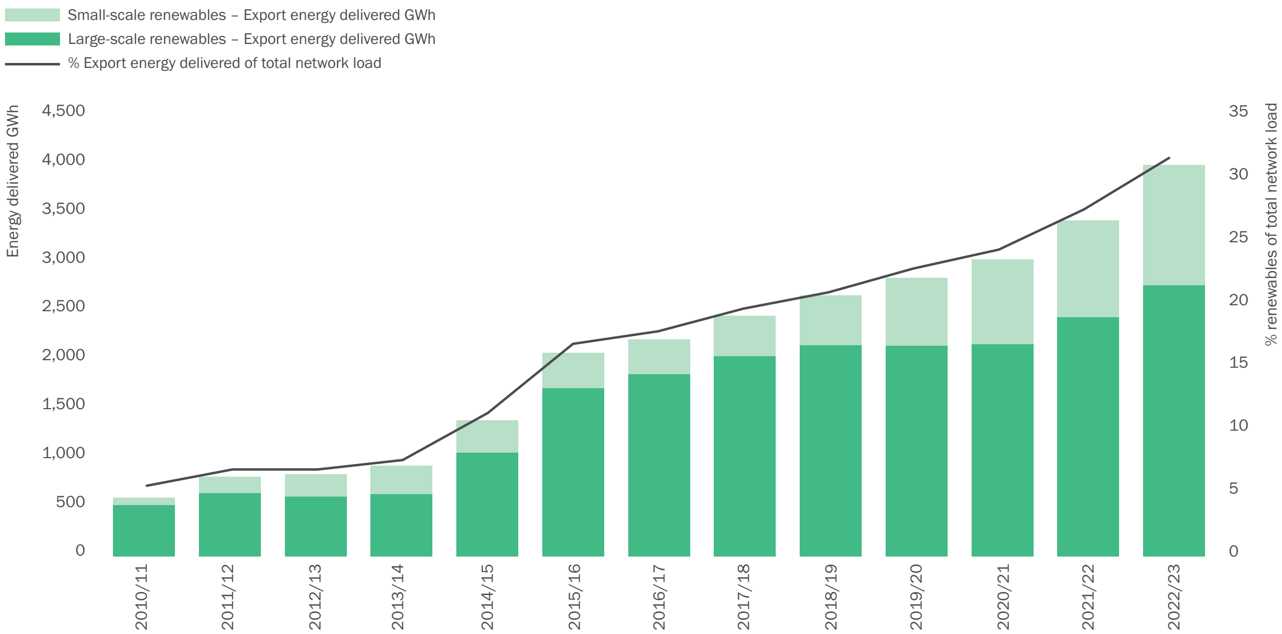
1.56 GW
total capacity
↑ 13.5% increase since 2021-22

1,231 GWh
delivered
↑ 24.2% increase since 2021-22

9.7%
energy delivered of total network load
↑ 1.7% higher than 2021-22

2 The 2021-22 Annual Report incorrectly stated that the total number of small-scale connections as at 30 June 2022 was 23,564. The correct figure was 233,564.

FIGURE 1. GROWTH IN EXPORT ENERGY DELIVERED TO THE ESSENTIAL ENERGY NETWORK FROM LARGE-SCALE AND SMALL-SCALE RENEWABLES.



Pillar 2. Empowering our people

Our commitments

We ensure the safety and wellbeing of employees by applying leading health and safety standards and providing a comprehensive health and wellbeing program. We are also championing an inclusive, supportive and growth-oriented culture by promoting our values and building a diverse and accountable workplace.

Outcomes delivered

Our safety performance continued to improve during 2022-23, with no Major Lost Time Injuries (LTIs) and lower Serious Claim Frequency Rate (SCFR) and Total Recordable Injury Frequency Rate (TRIFR) than the previous year. To ensure everyone can live and work safely around our electricity network we are continuing to promote public safety.

See 'Health and safety', page 21 for details.

We are continuing to build a workforce that is fit for the future and reflects the communities we serve, while addressing the challenge of an ageing workforce across our regional network. In February 2023 we welcomed 99 new apprentices, 25 trainees and 11 graduates; bringing the total number of people in Early Talent Pathway roles to 192 apprentices, 25 trainees and 17 graduates (as of 30 June 2023). We are also continuing to provide learning and development opportunities for all existing employees. Last year, more than 400 employees participated in leadership development programs, from frontline leaders to Senior Leaders and executives.

See 'Training and development', page 24 for more.

We are also committed to a gender diverse workplace with a female participation rate of at least 30 per cent. We sought and were granted exemption under section 126 of the *Anti-Discrimination Act 1977* (NSW) to allocate 30 per cent of all Early Talent Pathway roles to female applicants. This adds to the 10 Aboriginal and Torres Strait Islander Identified roles granted exemption in 2022. We are recruiting for 20 female identified apprentice roles and 10 Aboriginal and Torres Strait Islander identified trainee roles to start working with us in 2024.

In November 2022 we completed our first Reconciliation Action Plan (RAP), through which we have delivered improved career opportunities for Aboriginal and Torres Strait Islander people, business opportunities for Aboriginal and Torres Strait Islander enterprises, and continued to raise awareness within our organisation of the many First Nations upon whose land we work and live. To build on this first RAP, we are developing our next RAP throughout 2023.

See 'Reconciliation progress', page 5 and 'Inclusion and diversity', page 22 for further details.

Pillar 3. Enabling regional development and resilient communities

Our commitments

We have a responsibility to provide reliable and efficient connections for regional businesses and communities through partnerships, advocacy, engagement, and tech-enabled solutions. By integrating sustainability into our procurement decisions we are developing more resilient supply chains that enhance social and environmental outcomes. We are also committed to protecting cultural heritage by engaging with Aboriginal and Torres Strait Islander groups, guardians and landowners and managing risks in culturally significant areas.

Outcomes delivered

We own and operate a network of fibre optic cable that extends for over 1,600 km across regional NSW. These telecommunication assets support the operation of our distribution network and enable us to share advanced fibre communications infrastructure with regional businesses and communities, including supporting the renewable energy market under a joint-use arrangement. Our newly established subsidiary Intium is a first step to providing innovative services for regional and rural NSW customers.

As part of a two-year Smart Energy Communities pilot launched in March 2023, more than 200 customers in the NSW towns of Tea Gardens, Ivanhoe and Tibooburra are using a Wattwatchers smart energy management device to monitor their energy use and solar generation. The devices are providing customers with near real-time information to help them make informed choices about their energy use. They are also providing us with a deeper understanding of emerging needs and options for affordable and reliable electricity supply and services as we strengthen our existing community relationships.

For more information, see 'Pillar 4: Enable smart communities and new customer solutions', page 13.

We have also taken steps to understand and respond to our customers' needs more effectively. Via the new Essential People's Panel we will engage directly with residential and small business customers on relevant issues such as pricing and affordability, reliability and resilience, and customer service and communication. This panel complements our existing Customer Advocacy Group. Additionally, we consulted with more than 400 customers and stakeholders as we developed our 2024-29 Regulatory Proposal.

A new data model, developed over the past year, will provide insights into how customers are using our products and services. This will improve our customer-focused decision making and our level of service, by helping us tailor our offerings to individual needs. We are also sharing customer stories with our teams to help them understand customers' concerns.

For more details, read 'Our customers and communities', page 25.

During the year, we donated more than $726,000 to more than 130 community groups, stakeholders and charity organisations – combined contributions by our generous employees and the organisation.

For further information, see 'Giving to community groups, charities and stakeholders', page 27.

Since May 2023 we have applied a standard suite of sustainability criteria for procurements worth over $500,000. We procured $1.29 million dollars' worth of goods and services from registered Aboriginal and Torres Strait Islander enterprises during 2022-23 and partnered with Supply Nation to identify further opportunities.

Our workforce contains 234 apprentices, trainees and graduates (at 30 June 2023).

Sustainability governance

The Essential Energy Board has ultimate accountability for, and oversight of, the Sustainability Strategy. The Executive, supported by a Sustainability Steering Committee and Sustainability Working Group, has accountability for specific commitments within the strategy. The sustainability function works with business areas to champion sustainability-related issues and opportunities, drive performance and ensure transparent reporting.

Materiality

Our approach to materiality

We conduct materiality assessments periodically, to inform our sustainability priorities, effort and investment. Our most recent materiality assessment was completed in 2021-22 using the following method:

Step 1: Stakeholder interviews

We gathered input through interviews with 14 stakeholders, including: executive members, customers, community groups, and government representatives.

Step 2: Data analysis

We analysed the outcomes of the interviews, as well as a landscape scan and peer benchmarking exercise, to generate a list of potential material topics.

Step 3: Prioritisation workshop

We conducted a workshop, with eight of our executives and senior managers, to rate each potential material topic for (a) importance to our stakeholders, and (b) impact on our business performance.

Step 4: Materiality matrix and prioritised list

We used the workshop outcomes to produce a materiality matrix, and identified our material topics.

The findings of the work were endorsed by the executive team. This materiality assessment identified 17 environmental, social and governance (ESG) topics (see table 3) that have a significant impact on the business or our operations, with seven (bolded) identified as material. These seven material issues, plus Biodiversity and Land Use, are discussed in the following section.

Consistent with best practice guidance from the Global Reporting Initiative (GRI) and International Sustainability Standards Board (ISSB), we are committed to revisiting our material issues annually, and conducting a full materiality assessment every two to three years. We are planning to undertake our first double materiality assessment during 2023-24.

Access and reliability

For us, access and reliability mean designing and providing products and services that meet the needs of our stakeholders, reduce barriers to access and ensure continuity of service across all demographic and geographic groups.

Our overall network availability of 99.96 per cent exceeds both our goal and independently audited reliability requirements. We are investing in a smarter network to improve network visibility, which will enable us to anticipate and manage constraints, streamline connections, and manage network capacity through demand response technologies.

As customers transition to net zero, a smarter network will also help us to meet their energy needs in a safe, reliable and affordable way.

Our 2024-29 Regulatory Proposal includes investment to maintain overall reliability in line with customer preferences. We have identified groups with performance outside standard levels. So they are not disadvantaged in the future, we have proposed reliability-driven microgrid installations and a targeted reliability improvement program.

We have partnered with AGL to install our first large network battery in the Sovereign Hills area of Port Macquarie. This will increase network capacity without the major capital expenditure needed to upgrade the poles and wires network. We also deployed Australia's first hydrogen-based Stand Alone Power System for a heritage accommodation cottage at the NSW Myall Lakes National Park. For more information see 'Pillar 2: Drive connections and load, page 11 and Pillar 4: Enable smart communities and new customer solutions', page 13.

We are running targeted trials to improve how we manage electric vehicle charging and vehicle-to-grid discharging on our network. See 'Pillar 3: Facilitate electric vehicle adoption', page 12 for details.

Our quarterly customer research program tracks residential and small business customer perceptions of whether we respond in a timely, consistent manner and deliver on our promises. Our Customer Satisfaction Index moved from 80.7 (quarter four 2021-22) to 75.9 (quarter four 2022-23) across the course of 2022-23, with increasing cost of energy, combined with general cost of living pressures, being a key concern for customers. See 'Our customers and communities', page 25 for more information.

Climate risk and resilience

In recent years, we have seen communities badly affected by bushfires and floods. To address these challenges, we are working to build a more resilient network for the long term.

After four phases of consultation with our customers, we identified areas we need to address in our 2024-29 Regulatory Proposal – network of the future, resilience and reliability, pricing, and other essential services.

TABLE 3: TOPICS THAT HAVE A SIGNIFICANT IMPACT ON OUR BUSINESS OR OPERATIONS

ENVIRONMENT	SOCIAL	GOVERNANCE
Biodiversity and land use	**Access and reliability**	Corporate governance and responsible business
Climate risk and resilience	**Affordability**	Data privacy and cyber security
Energy and emissions	**Community investment and engagement**	Innovation, technology and collaboration
Waste management	**Employee value proposition**	**Legal and regulatory compliance**
Water management	Health, safety and wellbeing	Modern slavery and human rights
	Inclusion and diversity	Sustainable and responsible procurement

Bold topics identified as material.

We learned that customers expect us to support more renewables and replace assets with more resilient options such as fire-proof poles and Stand Alone Power Systems (SAPS). These changes are already underway. We commenced offering SAPS to some remote customers following the implementation of the national SAPS regulatory framework in late 2022. As of 30 June 2023, we have four SAPS installed, with a target of 400 by 2028-29.

A detailed review of bushfire modelling developed in partnership with Melbourne University will help us manage our network assets more appropriately and efficiently in relation to a changing climate.

Completed in late 2022, a climate impact assessment (CIA) of three acute hazards – bushfire, flood and windstorm – is helping us to quantify potential impact on our network assets and customers. This information is shaping our asset management strategies and priorities, development of technical standards, network planning and design, investment decisions and contingency planning. Our industry-leading digital twin network model is already providing new insights into our network (see page 10 for more information).

We are also working to improve the accuracy of risk assessments for network and crews. The predictions are based on data from Bureau of Meteorology weather stations. As some remote locations are out of range, we are trialling pole-mounted weather and environment sensors in rural and remote areas prone to bushfires.

Customers also expect us to provide relief to communities in crisis situations with, for example, generators and a portable community hub. In a transdisciplinary collaboration with the Southcoast Health and Sustainability Alliance and Zepben we are testing islandable microgrids in the New South Wales south coast shire of Eurobodalla. Microgrids can continue to power local energy networks when they are cut off from the national system – for example, during a bushfire. The project is being funded by the Australian Government's Regional and Remote Communities Reliability Fund with the intention of modelling the use of renewable energy to provide power independent from the main grid.

Further details on our approach to climate risk and resilience are included in 'Task Force on Climate-related Financial Disclosures', page 40.

Affordability

Our Corporate Strategy is designed to improve customer service and the customer experience while lowering overall costs. We are working to keep the network component of electricity bills as low as possible despite the significant challenges across the industry, such as rising costs and wholesale market volatility. From 2023-24, we will see the effects of the NSW Electricity Infrastructure Roadmap, which will continue to evolve over the next few years.

For customers, our distribution network costs peaked in 2012-13, when a typical residential customer's annual distribution network charge was $1,245 per annum (in real $2022-23 terms). By comparison, this will be $784 in 2023-24 – a saving of $461 per annum, or 37 per cent. Over the same period, a typical small business customer has achieved an annual saving of $2,253, or 41 per cent.

We are keeping costs as low as possible and improving reliability for remote and rural customers and communities by transitioning high cost-to-serve customers to more efficient and reliable solutions, such as Stand Alone Power Systems, where this is economically and technically feasible.

Our current tariffs are based mainly on the amount of electricity customers use regardless of when they use it. New technologies such as household solar, electric vehicles and battery storage can result in some households and businesses paying less than their fair share, while others pay more. We partnered with retailers Red Energy and Discover Energy to trial new, fairer tariffs for residential and small business customers and encourage them where possible to use less power during the 5-8pm peak time.

We started trialling our first network battery in February 2023, near Port Macquarie – increasing network capacity without the need for major capital expenditure for the poles and wires network.

For typical residential customers, our annual distribution network charge has reduced by 37% over the past decade (in real $2022-23 terms)

Employee value proposition

Successful employee engagement is key to recruiting and retaining high performing people. This means keeping our employees safe, ensuring our workforce reflects the communities we serve, and providing training and development opportunities.

Employee safety is our priority, and our leadership development programs are continuing to embed safety into mindset, culture and performance. The updated safety incident management tool is making it easier to monitor performance and log incidents. We are also updating Network Fatal Risks Critical Controls to prevent fatalities. Our Towards Zero driving safety working group is helping to improve driver attitudes, raise awareness of road safety risks and reduce the number of driving incidents for our employees, who travel more than 30 million kilometres every year.

We are taking practical steps to build an inclusive and diverse workforce. These include establishing an Inclusion Advisory Group, a corporate mentoring program and LGBTQIA+ awareness training, delivering disability in recruitment training to the recruitment team, and partnering with Work180, who help raise the bar for women in the workplace. We are also continuing to help young Aboriginal and Torres Strait Islander people to reach their potential through recruitment, training and scholarship programs.

Providing learning opportunities across the business is central to our culture of achievement and growth. We offer 'Learn and Grow' self-paced learning and virtual classroom workshops, financial support for study and have introduced a professional development assessment platform to help employees align their development with career goals.

See 'Our people', page 21 for more information.

Energy and emissions

We are developing a range of approaches to help us manage the way we use energy and reduce the quantity of greenhouse gas emissions emitted by our business operations.

This year, we set a target to reduce greenhouse gas emissions by 50 per cent by 2030 from a base year of 2020-21.

Batteries are fundamental to the clean energy transition and we are continuing to innovate in this area. In February 2023 we launched our first trial network battery near Port Macquarie on the NSW Mid North Coast. Developed in partnership with AGL, the Sovereign Hills Network Battery will increase the amount of rooftop solar generation local customers can export to the network. The battery will capture and store excess locally-produced renewable energy, then release it into the network when it is needed.

We found that output from existing rooftop solar systems increased by 5 per cent during a trial reduction in voltage to align with the 230-volt Australian Standard. See 'Pillar 2: Drive connections and load', page 11 for more details.

Within our network area, approximately 30TWhs of diesel, natural gas and LPG is consumed each year across residential, commercial, industrial, mining and agricultural sectors. Our 10-year Electrification Strategy will expedite electrification in regional, rural and remote NSW to provide emissions reductions and low-cost resilient energy. For the rest of 2023 we will be working with customers, industry and government to provide immediate value as we develop electrification guides, tools, panel suppliers and specialists.

During 2022-23 we completed our Bulk LED Upgrade Program for streetlights, with 96 per cent of the 178,000 streetlights we manage and/or bill for now LED. Changing to LED lamps reduces greenhouse gas emissions. See 'Streetlights', page 19 for more information.

We are also implementing policies and strategies to support the growth of electric vehicles (EVs). This includes transitioning our fleets of light and heavy vehicles to zero tailpipe emission equivalents, ensuring that EV charging providers can quickly and easily connect to our network and engaging with both providers and local government councils to enable innovative charging solutions. Our EV Charging Infrastructure Working Group is bringing stakeholders together to deliver an optimal outcome for the network, charging operators and end users. See 'Pillar 3: Facilitate electric vehicle adoption', page 12 for more details.

We report every year on our Scope 1 and 2 greenhouse gas emissions in accordance with the *National Greenhouse and Energy Reporting Act 2007*. Our Scope 1 emissions are from fuel use, Sulphur Hexafluoride (SF6) leakage in the electricity distribution network and wastewater handling by Essential Water. In 2023, distribution network loss emissions accounted for 94 per cent of total Scope 1 and 2 emissions. The increased renewable connections facilitating the net zero transition will also reduce our emissions. Over the past five years, distribution network loss emissions have reduced by 14 per cent, and our total Scope 1 and 2 emissions have reduced by 15 per cent since 2018-19.

We are developing a transition plan and decarbonisation pathway that addresses Scope 1, 2 and 3 emissions.

See 'Our Scope 1, 2 and 3 emissions', page 46 for more details.

Community investment and engagement

The better we know our customers the easier it is to meet their needs. Building trust by including them in discussions and decision making also creates the most fertile environment for growth and change.

We hold Customer Advocacy Group (CAG) meetings four times per year. Members drawn from across the network provide feedback and insights to our business decision makers and relay information back to their constituents, organisations and communities. They represent residential customers including those considered vulnerable, small businesses, industrial and commercial customers, and local government.

We have introduced a new data model to enhance our understanding of how customers are using our products and services. This will enable better, customer-focused decision making. We are also implementing an automated survey to capture customers' perception of our performance.

During 2022-23 we contributed more than $726,000 to more than 130 community groups, stakeholders and charity organisations – combined contributions by our generous employees and the organisation.

See 'Our customers and communities', page 25 for more details.

Legal and regulatory compliance

Energy is a heavily regulated industry. We must comply with relevant legal and regulatory requirements across our business, such as laws governing data privacy, wages, work health and safety and the environment.

For information regarding how we are meeting our legal and regulatory compliance requirements related to health, safety and wellbeing, see 'Our People', page 21.

For information concerning our approach to governance and monitoring of compliance requirements, see 'Management and accountability', page 48.

Our handling of modern slavery

Our Modern Slavery Statement for 2022-23, which will be released in December 2023, will outline our performance and outcomes, including:

- 87 per cent of third-party suppliers have completed the Modern Slavery Supplier Assurance qualification, against a target of 95 per cent.
- Zero human right violations were reported in our supply chain
- Advanced analytical assurance tools monitored 176 major suppliers in key spend categories as at 30 June 2023 to identify risks relating to environmental, social and governance (ESG).

We are continuing to meet key suppliers to develop our relationships and learn about opportunities for improvement within the broader industry.

Biodiversity and land use

We are committed to conserving the natural environment in the regions where we operate. Where possible, we rehabilitate biodiversity and restore land affected by our business operations.

Over the past year we continued our partnership with the NSW National Parks and Wildlife Service (NPWS) by making a co-contribution to ongoing rainforest restoration activities on Susan Island. We also relocated two osprey nests to protect this threatened species, and remove the risk of outages or a fire, at Tea Gardens and Palmers Island, west of Yamba.

Cultural heritage

During 2022-23 we incorporated the Aboriginal heritage due diligence process into our environmental impact assessment (EIA) documentation. We will review policy guidelines next financial year following the Aboriginal heritage awareness training sessions held over the past year.

Heritage impact is a mandatory EIA requirement. During 2022-23 we completed Aboriginal heritage surveys for:

- Pinnacles Place – Broken Hill
- South Jerrabomberra High Voltage Supply Project
- Wills Street Sewerage Treatment Plant Replacement Project – Broken Hill
- Quorn Park Switching Station and Powerline Augmentation
- South Durras Pole Replacement.

We engaged a heritage consultant to review restorative works at the former Lismore power station following the major flood event last year. The review will include options and recommendations for the future of the power station.

We sold the former Glen Innes power station to the local council, who are considering turning it into a museum. We also sold the former Tenterfield power station.

Environmental incidents

There were 488 incidents listed in our safety incident management tool up to 30 June 2023. Incident Classification Rating (ICR) ranges from 1, the highest, to 5, the lowest. 94 per cent of environmental incidents are ICR 5.

TABLE 4. ENVIRONMENTAL INCIDENTS FOR 2022-23

INCIDENT CLASSIFICATION	NUMBER OF INCIDENTS
Category 1 (high)	0
Category 2	10
Category 3	1
Category 4	17
Category 5 (low)	457
Not applicable	3
Grand Total	488

OUR CLIMATE RESPONSE

CLIMATE-RELATED RISKS AND OPPORTUNITIES

CORPORATE STRATEGY

Risks

- Extreme weather (floods, windstorms, droughts, heatwaves)
- Bushfires
- Supply chain challenges (disruptions and shortages)
- Future energy volatility

Opportunities

- Network resilience
- Accelerated electrification (of industry and households)
- New markets, business models and technology

SUSTAINABILITY STRATEGY

PATHWAYS	TARGETS
1 Building network resilience	11,000 poles replaced with fireproof composite poles in targeted areas by 2028-29 1,123 portable community resilience assets available by 2028-29 **Further business responses:** Undergrounding of power lines, undertake climate change modelling, bushfire modelling and vegetation management
2 Leveraging supply chain	Top 176 suppliers profiled for risks and environmental, social and governance (ESG) indicators **Further business responses:** Reduce reliance on sole-sourced products and services, improve and increase inventory holdings
3 Delivering Stand Alone Power Systems and microgrids	400 SAPS projects and 6 microgrid projects delivered by 2028-29
4 Installing batteries	29 Battery Energy Storage Systems (BESS) by 2029-30
5 Facilitating electric vehicle adoption	**Tracking only:** EV adoption percentage in regional NSW and number of fast chargers in regional NSW
6 Enabling renewable connections	4.2 GW of renewables connected to the network by 2029-30 (2.4 GW small-scale and 1.8 GW large-scale)
7 Decarbonising our operations	Property target – 35 additional depots upgraded with solar panels by 2028-29 Emissions target – Scope 1 and 2 emissions reduction of 50% by 2030, from a base year of 2020-21 **Further business responses:** Manage and reduce Sulphur Hexafluoride (SF6) on the network, measure and manage Scope 3 emissions Transitioning fleet to electric vehicles

2.912GW

of renewable assets connected to our network

15%

reduction in Scope 1 and 2 emissions over the past 5 years

4

Stand Alone Power Systems

Task Force on Climate-related Financial Disclosures

Essential Energy recognises that this disclosure is an early adoption based on best endeavours, delivered ahead of sector-wide guidance being available, and therefore there may be limitations to the robustness and consistency of reporting.

Governance

Board role and responsibilities

The Board has ultimate oversight of our strategic response to climate change, which is delivered primarily through our Corporate Strategy, Sustainability Strategy, Strategic Asset Management Plan and Regulatory Proposal. Responses to our climate-related risks and opportunities are threaded through these documents.

The Board approves our Sustainability Strategy. The Strategy's 'Responding to Climate Change' pillar contains three commitments: Building climate resilience, Facilitating the net zero transition, and Decarbonising our operations. In February 2023, the Board approved metrics and targets for this pillar (see table 8), which will help it to monitor our performance.

Our Corporate Strategy is approved by the Board and explicitly references multiple transition opportunities, including facilitating electric vehicle (EV) adoption and enabling smart energy solutions for rural and regional communities.

Other transition risks and opportunities arising from climate-related regulation, policy or market activity are considered and addressed by the Board as part of business-as-usual strategic and financial planning. The Corporate Strategy is monitored quarterly.

Climate and sustainability topics are specifically discussed by multiple Board sub-committees, including:

- The Safety, Human Resources and Environment Committee, which reviews performance against the Sustainability Strategy on a quarterly basis
- The Risk and Cyber Security Committee, which a) ensures an appropriate framework for identifying and managing risks arising from climate change (including physical, transitional and liability risks), and b) monitors strategic and business risks, including climate change and other sustainability and environmental risks
- The Audit Committee, which oversees and reviews TCFD and other public disclosures regarding sustainability.

The Board (together with Management) continues to increase its understanding of the implications of climate on our business and sector, including through training and education sessions on topics such as climate reporting standards. This positions the Board to continue to steer the organisation towards best practices, including on the measurement and disclosure of climate-related information.

In an Australian-first, during 2022-23 we started trialling a hydrogen supported Stand Alone Power System, for a heritage accommodation cottage in Myall Lakes National Park. It is a 100 per cent standalone system, using a solar array, Lithium-ion batteries, hydrogen fuel cells and water storage to power the cottage year-round.

Management's role and responsibilities

Management is responsible for delivering on the Corporate Strategy, as well as the Sustainability Strategy, Asset Management plans and Regulatory Proposal. This responsibility includes executing new opportunities for sustainability-led business growth, including – explicitly – facilitating EV adoption and enabling smart energy solutions in rural and regional New South Wales (NSW).

Management reviews performance against the Sustainability Strategy on a quarterly basis. The Sustainability Steering Committee, on which the entire Executive (Management) team sits, is a subcommittee chaired by the Chief Corporate Affairs Officer. This Committee is responsible for addressing key risks and issues regarding the implementation of the Sustainability Strategy.

Over the past year, the Sustainability Steering Committee has:

- endorsed performance metrics and targets for Board approval (including those under the 'Responding to climate change' pillar of the Sustainability Strategy)
- confirmed priorities for TCFD reporting initiatives
- actioned the development of decarbonisation pathways for emissions sources
- endorsed a Scope 3 emissions baseline and forecast project.

The Sustainability and Climate Working Group is responsible for the delivery of the Sustainability Strategy and climate-related initiatives. It meets monthly, is chaired by the Head of Sustainability and includes representatives from across the organisation.

Over the past year, the Working Group has undertaken climate education sessions, including two half-day workshops on climate change and scenario modelling.

Strategy

Essential Energy has a large geographical network area covering regional, rural and remote communities, and we are seeing changing expectations as a result of communities' experience of climate impacts. More broadly, we are also seeing shifting expectations of us as an organisation from investors, insurers, customers and society.

These shifts manifest in two main types of impact on Essential Energy, from which emerge our climate-related risks and opportunities. The first concerns the physical environment we operate in, which impacts assets we own and the way our network is managed. The second concerns the broader market and economy that we operate within, which in turn affects the value the network generates, our role in the overall industry, and the services customers are offered in the future.

As a regulated distribution network provider there is an inherent risk that the regulatory framework does not align with the expectations of our key stakeholders when it comes to climate risk and climate action. The National Electricity Rules govern the economic regulation of electricity distribution networks which seeks to promote efficient investment in, and efficient operation and use of, electricity services. How this framework evolves to accommodate new components, like emissions, resilience or emerging climate threats, is an ongoing evolution of the legislative mechanism.

Our climate risks and opportunities

While developing our current Corporate Strategy in 2020-21, the Board and Management Team conducted an extensive review of the external landscape, including technological possibilities, economic trends and enabling regulatory plans and frameworks[3]. This review supported a discussion of Essential Energy's desired role within the energy transition, as well as the identification of a set of transition risks and opportunities, which are reflected in our Corporate Strategy and Sustainability Strategy.

Physical climate risks, for their part, have long been established considerations within our network management processes. We maintain a register of physical risks affecting the electricity network, including those relating to weather events, such as bushfires, storms, floods and sea-level rise. The impacts of these risks could potentially involve the failure of network assets or an inability to respond to significant network outages due to limited physical access to the network.

Tables 5 and 6 provide a shortlist of material climate-related risks and opportunities, to combine both our physical and transition risks, on the one hand, and our transition opportunities on the other.

3. For example, relevant regulatory plans include (all at NSW Government level) the Net Zero Plan Stage 1 (2020-2030), Electricity Infrastructure Roadmap, Electric Vehicle Strategy and Hydrogen Strategy. As part of the Electricity Infrastructure Roadmap, the NSW Government plan to deliver the state's first five Renewable Energy Zones, three of which are directly within our network area.

TABLE 5. OUR CLIMATE RISKS

RISK 1: EXTREME WEATHER EVENTS (FLOODS, WINDSTORMS, DROUGHTS, HEATWAVES)	
Type: Physical – Chronic and Acute	**Time horizon:** Short term
POTENTIAL IMPACT	**BUSINESS RESPONSE**
• Asset damage, including reduced life span for assets affected by critical or stressful weather events. • Disruptions and outages of customer services from weather events. • Increased unpredictability of asset and operational performance over time given changing conditions. • Increasing frequency of impacted working conditions for employees and contractors. • Impacts to supply and reliability impacting the risk of safety implications. • Increased risk of asset failure impacting the reliability of services to the community. • Increased reliance on electricity services during times of extreme weather including heatwaves and bushfires.	• Risks of extreme weather events managed through standard asset management processes. • Additional advanced modelling of future climate risks through our 2021-22 Climate Impact Assessment (CIA) process. • Initiated a network and community resilience engagement process to underpin our 2024-29 Regulatory Proposal (see page 45). These plans include longer-term resilience plans beyond 2029. • Metrics and targets approved for our 'Facilitating the net zero transition' and 'Building climate resilience' commitments under the Sustainability Strategy (see tables 8 and 9).

RISK 2: BUSHFIRES	
Type: Physical – Acute	Time horizon: Short term
POTENTIAL IMPACT	**BUSINESS RESPONSE**
Same as Risk 1.	Same as Risk 1. As well as general resilience-boosting measures delivered in the Asset Management function and outlined in the Sustainability Strategy, specific responses for bushfire risk include installing composite poles and undergrounding wires in bushfire-prone areas. In 2022-23, we partnered with Melbourne University to complete a detailed review of our bushfire modelling across our entire operational footprint, using industry-leading modelling and technical capabilities. This helps us to mitigate the risk of our assets being involved in starting fires, as well as that our assets can withstand impacts from fires so far as reasonably practicable. This means we can maintain a safe and reliable network for our customers in regional NSW.

RISK 3: SUPPLY CHAIN DISRUPTIONS AND SHORTAGES (KEY MATERIALS, SKILLS, TECHNOLOGIES)	
Type: Transition – Technology	Time horizon: Short term
POTENTIAL IMPACT	**BUSINESS RESPONSE**
• Supply bottlenecks and scarcity of goods, workers and inventory delays projects and work schedules. • Global competition for resources drives up prices of goods, services and human capital. • Reduced ability to respond to major climate events and outages due to scarcity of replacement parts.	Risk mitigation measures against supply chain disruptions include: • Segmenting our supply base according to advanced criteria • Supplier risk profiling for our key 150 suppliers using third party best-of-breed monitoring technologies • Reducing reliance on sole sourced products and services • Improving and increasing inventory holdings • Continual monitoring of market and economic conditions.

RISK 4: FUTURE ENERGY VOLATILITY	
Type: Transition – Market	Time horizon: Short term
POTENTIAL IMPACT	**BUSINESS RESPONSE**
• Increased unpredictability of network performance as traditional generation is removed from the system and replaced by intermittent variable generation. • Increased customer and retailer hardships due to volatile energy markets. • Faster adoption of Consumer Energy Resources (CER) as customers want greater energy security.	• Expanding visibility and monitoring of network performance. • Development of new flexible solutions like batteries, to respond to intermittent variable generation and CER. • Development of new services for key customer segments such as trialling local battery storage solutions to buffer customers from volatile wholesale electricity costs while supporting the effective and efficient integration of renewables. • Continued focus on energy affordability for customers. • Continued focus on supporting our vulnerable customers. • Concessions Awareness Campaign and input into Australian Energy Regulator Game Changer work. • Support for most vulnerable customers through our Customer Support Policy and funding for Uniting in-depth customer support for those most at risk. • Increasing account management and support for commercial customers.

TABLE 6. OUR CLIMATE OPPORTUNITIES

OPPORTUNITY 1: NOVEL TECHNOLOGIES FOR NETWORK RESILIENCE	
Type: Resource efficiency/Resilience	**Time horizon: Short to medium term**
POTENTIAL IMPACT	**BUSINESS RESPONSE**

• Greater ability to monitor and manage network performance.
• Improved ability to forecast and predict network impacts from major events.
• Faster response times to outages and to restore energy supply.
• Greater safety and efficiency of personnel.
• More affordable technology alternatives to traditional network augmentation.
• Improved network utilisation.
	• Essential Energy is continuing to develop a series of new solutions that add flexibility and resilience to the network:
	  • Better integration with distributed energy resources using advanced monitoring, communications and control systems
	  • Developing advanced analytical tools that enable forecasting and supporting real-time decision making and identification of network issues
	  • Establishment of battery storage as a new asset class and identification of potential sites to aid reliability
	  • Stand Alone Power Systems
	  • Improving asset management (through field service mobility, works management and remote inspection technologies, such as drones).

OPPORTUNITY 2: ACCELERATED ELECTRIFICATION OF INDUSTRY AND HOUSEHOLDS	
Type: Markets	**Time horizon: Short term**
POTENTIAL IMPACT	**BUSINESS RESPONSE**
Essential Energy stands to benefit from a substantial increase in load consumption as customers electrify. This is supported through government policies that provide funding or legislative requirements for households, industry and transport sector to reduce emissions.	• Though the pace of electrification is largely driven by government policy and customer choice, Essential Energy is taking an active role in supporting and educating customers through the transition. • Established dedicated Accounts Team to assist customers, like EV charger operators, develop and trial new solutions. • Enhancing the connection process and providing key network information to enable customer decisions. • Actively encouraging the development of industry standards and reforms for new technology, like smart EV charging. • Supporting customer electrification feasibility studies at complex customer sites to identify potential barriers and opportunities to optimise our response to support customers to decarbonise through electrification. • Development of new services for key customer segments such as electrification tools, guides, and a panel of technical specialists together with access to key account specialists to support customers to decarbonise at least cost through electrification. • Development of customer education programs.
OPPORTUNITY 3: NEW MARKETS AND TECHNOLOGY	
Type: Markets Technology	**Time horizon: Short term**
POTENTIAL IMPACT	**BUSINESS RESPONSE**
The energy transition is opening the possibility of new business models and new routes to value, which is a significant opportunity in regional and rural NSW. This could lead to expansion of services or adjacent markets.	• Launch of a new innovation program, Smart Energy Communities, that will trial new technology and potential new market designs. • Establishment of a new unregulated business, Intium, to expand into new and adjacent services. • Establishment of battery storage as a new asset class, under ring-fencing requirements, that enables access to the wholesale market and new services, like community batteries. • Development of dynamic connection agreements with customers that enable greater use of the network and better customer outcomes. • Continually monitoring for new opportunities and ways of working.

Scenario modelling

Physical risks

Physical climate modelling is a unique and specialist field. In 2021-22 and 2022-23, we engaged external specialists to undertake a Climate Impact Assessment (CIA), which modelled scenarios to quantify the financial and non-financial impacts of physical climate events on our network assets. This modelling was based on multiple inputs, including emissions trajectories created by the Intergovernmental Panel on Climate Change (specifically, Representative Concentration Pathways (RCPs) 4.5 and 8.5 over the time horizons of 2050, 2070 and 2090). This will inform future network investment strategies with a view to proactively addressing the long-term horizon impacts of climate change.

Transition risks and opportunities

During 2022-23, we conducted a strategic scenario planning workshop to better understand the risks and opportunities generated by the broad market response to climate change, which will appear in conjunction with physical changes to the climate. The workshop was attended by senior leaders and subject matter experts from across the business (including finance, risk, asset management, future networks, regulatory affairs, human resources, corporate strategy, sustainability, commercial and Essential Water).

Our workshop approach built on the analysis underpinning our Corporate Strategy, which includes forecasts of multiple factors (such as renewable uptake, population and electricity demand) over the medium term. We mapped these forecasts out to three longer-term climate scenarios, which were a combination of physical risks (from our CIA) and other reference material (such as the Shared Socioeconomic Pathways) that could help us to understand the social, technical and economic impacts of a changing climate on our customers.

These scenarios ultimately sketched out three possible future states which senior leaders could use to explore and evaluate future impacts on the energy sector. The scenarios are outlined in table 7.

TABLE 7. OUR CLIMATE SCENARIOS

SCENARIO	FEATURES	ENERGY SECTOR IMPLICATIONS
Accelerated action (<2 degrees)	• Increased customer participation • Localised energy sources • Green financing • Heightened expectations for safety and sustainability. • Acceleration of action to limit warming • Strong global collaboration with emphasis on global equality and wellbeing over economic growth	• Micro-energy grids could become dominant, leaving traditional power generating assets stranded • Community energy projects and small companies will intensify competition, reducing dependence on central energy grids.
Green growth (>2, <3 degrees)	• Rapid energy transition driven by climate concerns • Renewable, decentralised and resilient energy system models • Technological advances • Shifting consumer and investor preferences.	• Customers increasingly look to solar and batteries to bolster their resilience • Increased renewable energy generation necessitates storage solutions and drives decentralised energy models • Traditional energy companies face competition from new entrants providing bundled energy solutions.
Slow progress (>3 degrees)	• Shift towards resilient decentralised systems, with proactive maintenance • Emphasis on affordability amid political and economic challenges.	• Climate impacts drive an urgent need for resilience and adaptation in infrastructure, systems and policies • Rising temperatures, extreme weather events and shifting population patterns disrupt energy supply and increase demand, especially during crises • Increased energy costs widen the gap between those who can and cannot afford reliable energy.

Ongoing resilience of our network

In 2021-22 we engaged with Resilience NSW (now the NSW Reconstruction Authority) to develop a joint discussion paper on network resilience. We then hosted a joint public forum to uncover the ways in which networks could best support communities in responding to an unpredictable climate over the next decade. Much of the feedback we received suggested focusing on supporting local resilience planning and community education.

Our Network Resilience Plan outlines our business response to this engagement journey, including a range of network and non-network initiatives aimed at improving both network and community resilience (including in partnership with broader community-level plans). Customers and other stakeholders strongly supported investments in both areas.

Specific initiatives in the plan include:

- Use of composite power poles for identified risk-based replacements. Composite poles are more resilient to withstanding fires
- Undergrounding of targeted overhead power lines
- Installing SAPS and microgrids, enabling the retirement of targeted long radial overhead powerlines in the highest bushfire risk locations
- Installing solar and battery backups at key radio tower sites
- Establishing a fleet of portable assets to support communities impacted by long duration power outages. These include a portable depot for our workforce to operate from, generators of various sizes, portable streetlights, solar panels, batteries, switchboards and a community hub support van.

The plan has been used to inform our 2024-29 Regulatory Proposal submission.

Risk management

As detailed above, in 2021-22 and 2022-23, we engaged external specialists to undertake a CIA, modelling the expected impact of the physical impacts of climate change on our network assets and customer experience. We combined historic asset failure data with expert judgement and a literature review. We also used the NSW Government Climate Risk Ready tool to supplement existing risk assessments and identify risks that may benefit from longer-term quantitative assessments to identify potential impacts and mitigation options.

The assessment produced comprehensive forecast models for bushfires, floods and windstorms, including location-specific data that informed the projected timings and plans required for mitigative measures. In evaluating our physical risks, we modelled the projected impact on the customer experience as a result of climate-driven sustained power outages using an industry standard metric known as the Value of Customer Reliability. This generated economic quantification of the impacts of sustained power outages as a result of the increase in climate-driven bushfires, floods and windstorms.

As an electricity network owner, we evaluate and address our physical risks as part of business-as-usual risk management, primarily through our Strategic Asset Management Plan and individual asset management strategies. Risks are rated according to a common risk matrix identifying likelihood and potential consequences. Through our risk management framework, we also assess the possibility of additional organisation impacts from the failure of an asset, for example on safety, reliability, financial performance, the environment, compliance, reputation or community standing.

Essential Energy recognises that it is not practical or efficient to eliminate the potential impacts of natural hazards and extreme weather events. Our approach to limiting the impact of these events includes maintaining incident response capabilities that mitigate the physical impacts of climate hazards and disaster events such as floods, storms and bushfires, by restoring power following outages caused by extreme weather events.

Our existing risk register includes risks affected not only by physical risks but also transition risks. These are not necessarily tagged as climate risks as both their causes and impacts can be broader. For example, energy volatility could derive from climate risks or other factors. Risks are rated according to a common risk matrix identifying likelihood and potential consequences. These risks are all addressed at Board and Management level, mostly through ongoing monitoring of the factors underpinning our Corporate Strategy and the metrics and targets identified in our Sustainability Strategy (see tables 8 to 10).

Metrics and targets

The ‘Responding to Climate Change’ pillar of our Sustainability Strategy contains three commitments:

- Facilitating the net zero transition
- Building climate resilience
- Decarbonising our operations

In 2022-23 the Board approved metrics and targets for each of these three commitments, as presented in tables 8 to 10.

TABLE 8. FACILITATING THE NET ZERO TRANSITION

METRIC	PERFORMANCE 2021-22	2022-23	TARGET
Number of gigawatts (GW) of renewable assets connected to network (small-scale and large-scale)	2.575 GW of renewable assets connected to the network (1.375 GW small-scale and 1.2 GW large-scale)	2.912 GW of renewable assets connected to the network (1.561 GW small-scale and 1.351 GW large-scale)	4.2 GW of renewable assets connected to the network by 2029-30 (2.4 GW small-scale and 1.8 GW large-scale)
Number of alternative network solution projects commenced (total number of SAPS and microgrids)	2 SAPS 1 microgrid	4 SAPS 1 microgrid	400 SAPS projects and 6 microgrid projects delivered by 2028-29
Number of Essential Energy batteries connected to the network	0 batteries	1 battery	29 Battery Energy Storage Systems (BESS) by 2029-30
Electric vehicle (EV) adoption percentage in regional New South Wales (NSW)	0.04%	0.19%	Tracking only
Number of public EV fast chargers in regional NSW	127	163	Tracking only

TABLE 9. BUILDING CLIMATE RESILIENCE

METRIC	PERFORMANCE 2021-22	2022-23	TARGET
System Average Interruption Duration Index (SAIDI)	218 minutes	222 minutes	Under or equal to 211 minutes of interruptions per customer per year
System Average Interruption Frequency Index (SAIFI)	1.6 instances	1.579 instances	Under or equal to 1.81 interruptions per customer per year
Major Event Days (MED) – number of and total duration threshold	12 days 5.79 MED SAIDI threshold	2 days 6.245 MED SAIDI threshold	Tracking only

TABLE 10. DECARBONISING OUR OPERATIONS

METRIC	PERFORMANCE 2021-22	2022-23	TARGET
Scope 1 and 2 emissions – Tonnes of carbon dioxide equivalent (tCO2-e)	555,533 tCO2-e	552,531 tCO2-e	Scope 1 and 2 emissions reduction of 50% by 2030, from a base year of 2020-21
Scope 3 emissions (tCO2-e)	Not disclosed	97,287 tCO2-e	Tracking only
Total energy consumption (renewable and non-renewable) within organisation (GJ)	2,653,139 GJ	2,857,422 GJ	Tracking only
Emissions reduction activities	20 depots upgraded with solar panels	20 depots upgraded with solar panels	35 additional depots upgraded with solar panels by 2028-29
Sulphur Hexafluoride (SF6) on network (kg)	25,680 kg	27,557 kg	Tracking only

Our Scope 1, 2 and 3 emissions

We annually report Scope 1 and 2 greenhouse gas emissions in accordance with the *National Greenhouse and Energy Reporting Act 2007*, which provides emissions and intensity ratios for historical periods.

Our Scope 1 emissions are from: transport fuel use and stationary fuel use; Sulphur Hexafluoride (SF6) leakage in the electricity distribution network; and Essential Water fuel combustion and emissions of methane and nitrous oxide during wastewater handling.

Much of our emissions profile derives from our indirect, Scope 2 emissions. In 2022-23, 94 per cent of Scope 1 and 2 emissions were attributable to distribution loss emissions, which are emissions from the amount of energy lost distributing electricity across the grid before it reaches end users. Essential Energy is a regional network with 183,612 km of powerlines, and losses on our network are primarily driven by the need to distribute energy significant distances over regional, rural and remote NSW. The decarbonisation of the NSW generation mix will automatically reduce emissions in the coming years as more coal-fired generation shuts down and more locally-generated renewables are connected to the grid. In continuing to drive renewable connections, we are not only helping to facilitate the net zero transition but also reducing our emissions. Over the past five years, distribution network loss emissions have reduced by 14 per cent.

Our other Scope 2 emissions sources are from electricity consumption for Essential Energy and Essential Water facilities.

TABLE 11. SCOPE 1 AND 2 GREENHOUSE GAS EMISSIONS

YEAR (30 JUNE)	2018-19	2019-20	2020-21	2021-22	2022-23
Total Scope 1 (tCO2-e)	26,921	27,578	25,746	23,868	25,919
Total Scope 2 (tCO2-e)	623,378	559,456	572,220	531,665	526,612
Total Scope 1 and 2 emissions (tCO2-e)	**650,299**	**587,034**	**597,966**	**555,533**	**552,531**

FIGURE 2: COMBINED SCOPE 1 AND 2 GREENHOUSE GAS EMISSIONS

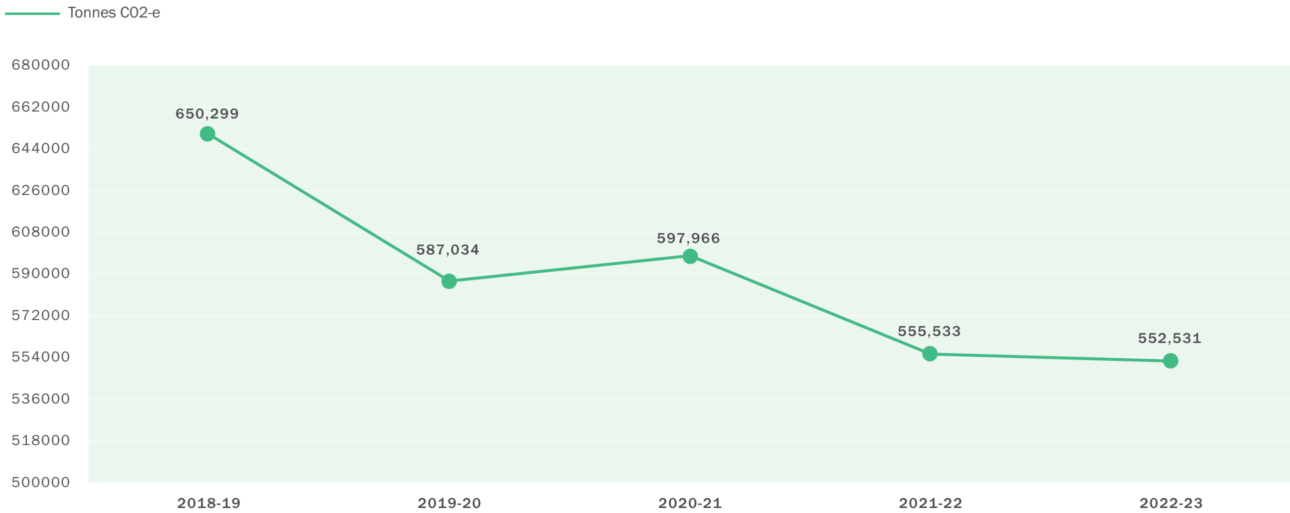


TABLE 12: SCOPE 3 GREENHOUSE GAS EMISSIONS

SCOPE 3 EMISSIONS CATEGORY	FY23 EMISSIONS (tCO2-e)
Category 1: Purchased Goods and Services	50,434
Category 3: Fuel & Energy-related Activities	39,836
Category 4: Upstream Transportation and Distribution	1,356
Category 5: Waste Generated in Operations	1,723
Category 6: Business Travel	1,174
Category 7: Employee Commute	2,764
Total Scope 3 Emissions	**97,287**

Essential Energy is developing a transition plan and decarbonisation pathway that addresses Scope 1, 2 and 3 emissions. This year, as shown in table 10, we set a target to reduce greenhouse gas emissions by 50 per cent by 2030 (Scope 1 and 2, base year of 2020-21). This target is forecast to be achieved through a reduction of distribution network and electricity emissions from grid decarbonisation, as well as a reduction in fleet emissions from electrification and a reduction in electricity emissions from installing solar photovoltaic panels on depots. We are also looking at how we manage the use of SF6 on the network. We are developing strategies to address Scope 3 emissions, including through our purchased goods and services and waste emissions.

Committed to high standards of business integrity, ethics and professionalism

We maintain the highest standards of governance and accountability to ensure that our business continues to meet the needs of our customers, regulator, communities and other stakeholders.

Governance

Essential Energy is a State Owned Corporation established under the *Energy Services Corporations Act 1995* (NSW) and the *State Owned Corporations Act 1989* (NSW) to provide services critical to the economy and infrastructure for NSW.

It is governed, principally, by those two statutes and its Constitution, and operates within the terms of the *Electricity Supply Act 1995* (NSW).

Good governance is critical for organisations. It provides a platform for a sustainable future and demonstrates commitment to high standards of business integrity, ethics and professionalism across all activities.

Essential Energy's Code of Conduct and Statement of Business Ethics sets out expectations for employee behaviour that are fundamental to Essential Energy's success. The code encourages a culture of responsibility and accountability that promotes ethical and responsible decision making.

Good governance helps to ensure the delivery of outcomes sought by shareholders; supports people and business operations; and helps ensure Essential Energy adopts sound ethical, financial and risk management practices to benefit customers and its shareholders, as well as effective compliance and auditing programs.

Board of Directors

The Board is responsible for governance and, ultimately, the performance of Essential Energy. It gives direction and exercises judgement in setting Essential Energy's strategy and objectives and is responsible for overseeing its implementation.

The Chief Executive Officer (CEO) is responsible to the Board for the day-to-day management of Essential Energy and leads the Executive Leadership Team (ELT) in delivering the strategy and achieving the performance targets set by the Board.

The Board operates in accordance with its Charter, which provides an overarching statement of authority and accountability for governance and management of Essential Energy, consistent with the Constitution, applicable legislation, government policy and Essential Energy's Code of Conduct and Statement of Business Ethics.

All directors on the Board of Essential Energy, apart from the CEO, are appointed by the voting shareholders – the Treasurer of NSW and the Minister for Finance. Appointments may be renewed by the voting shareholders, who may appoint other directors at their discretion. Each non-executive director's remuneration is determined by the voting shareholders and is paid out of Essential Energy's funds. The CEO is not entitled to additional remuneration for being an executive director.

Conflicts of interest

The Board considers all non-executive directors to be independent. To ensure their independent status, all directors of Essential Energy are subject to statutory duties and prohibitions regarding conflicts of interest. Directors identify and disclose issues which may give rise to any conflict of interest. Terri Benson has declared potential conflicts of interest in relation to her directorship with the Birdon Group. Jennifer Douglas has declared potential conflicts of interest in relation to her directorship with GUD Holdings and a family member employed as a graduate at Schneider Electric. The Honourable Duncan Gay has declared potential conflicts of interest in relation to his directorships with Bush Children's Education Foundation. Vanessa Fernandes (Sullivan), a director of Essential Energy until 9 December 2022, declared potential conflicts of interest due to her directorship with AGL Energy. The Board deems that appropriate mitigation measures are in place to manage each of the potential conflicts, administered by the Company Secretary, and considers Ms Benson, Ms Douglas, the Honourable Duncan Gay, and Ms Fernandes (Sullivan) at the time of her directorship, as independent directors.

The Company Secretary maintains the Register of Interests and Standing Conflicts of Interest, which is reviewed at each Board meeting.

Board committees

The role of the Board is to provide strategic guidance and effective oversight of management. In undertaking this role, the Board has established five committees, as outlined below. Each Committee acts in accordance with a charter endorsed by that committee and approved by the Board setting out matters relevant to the composition, responsibilities, authority and reporting of the Committee.

Audit Committee

The Audit Committee meets at least four times per year. The Committee assists the Board in fulfilling its responsibilities regarding matters relating to Essential Energy's financial statements and reporting, as well as the oversight of internal and external audits and internal controls. In addition, the Committee examines any other matters referred to it by the Board.

Board Regulatory Committee

The Board Regulatory Committee meets at least four times per year. The Committee assists the Board in fulfilling its responsibilities in seeking strong and sustainable customer and shareholder outcomes in regulatory-related matters, monitoring regulatory risk in its oversight of regulatory strategy, compliance and stakeholder engagement activities, and regulatory proposals and submissions. In addition, the Committee examines any other matters referred to it by the Board.

Gavin Dufty, Executive Manager Policy and Research, St Vincent De Paul, is an independent remunerated adviser to the Committee, with expertise and insights into the perspective of Essential Energy's customers.

Nominations Committee

The Nominations Committee meets at least once per year. The Committee assists the Board in fulfilling its responsibilities in relation to Board succession planning, particularly regarding the balance of skills, knowledge, experience, independence and diversity on the Board, director induction, and professional development programs and succession planning for the CEO and senior executives.

Risk and Cyber Security Committee

The Risk and Cyber Security Committee meets at least four times per year. The Committee assists the Board in fulfilling its responsibilities regarding matters relating to Essential Energy's risk management, compliance, governance practices, litigation, and probity, ethics, and corruption prevention. In addition, the Committee examines any other matters referred to it by the Board.

Safety, Human Resources and Environment Committee

The Safety, Human Resources and Environment Committee meets at least four times per year. The Committee assists the Board in fulfilling its responsibilities regarding work, health, safety, and environmental practices, and in its oversight and corporate governance in relation to people, safety and wellbeing, and environmental matters. In addition, the Committee examines any other matters referred to it by the Board.

Trevor Brown is an independent remunerated adviser to the Committee, with a particular expertise in safety matters.

Directors' remuneration

Under the *State Owned Corporations Act 1989*, the voting shareholders determine the remuneration of State Owned Corporation Chairs and directors. At the Premier's request, the Statutory and Other Offices Remuneration Tribunal (SOORT) recommends such remuneration as set out in the table below, which is based on the SOORT 2007 determination. The fee amounts have been unchanged since 1 July 2016, and are the same as the amounts specified for Essential Energy's predecessor company, Country Energy, in 2007 by the SOORT at that time.

CHAIR/MEMBER SUBCOMMITTEE REMUNERATION	ANNUAL FEE
Board Chair[1]	$106,900
Director[1]	$60,600
Chair, Audit Committee and Chair Risk and Cyber Security Committee[2]	$7,460
Members, Audit Committee and Risk and Cyber Security Committee[2]	$5,330
Chairs, Other Committees[2]	$5,330
Members, Other Committees[1]	$3,000

1. Base fee
2. Additional fee

Essential Energy Board of Directors

Doug Halley
BCom MBA, FAICD

Chair

Commenced:
25 August 2020

Current Term:
25 August 2020
to 24 August 2024

Committees
- Member, Audit Committee
- Chair, Nominations Committee

Terri Benson
BBus (Act), CPA, GAICD

Non-Executive Director

Commenced:
28 April 2022

Current Term:
28 April 2022
to 27 April 2025

Committees
- Chair, Audit Committee
- Member, Nominations Committee
- Member, Risk and Cyber Security Committee

Other Directorships
- Birdon Group, Managing Director

Robyn Clubb AM
BEc CA FFin MAICD

Non-Executive Director

Commenced:
15 March 2018

Current Term:
15 March 2018
to 14 March 2024

Committees
- Chair, Risk and Cyber Security Committee
- Member, Nominations Committee
- Member, Safety, Human Resources and Environment Committee

Other Directorships
- Australia Post, Director
- Australian Wool Exchange Ltd, Chair (until 25 November 2022)
- Craig Mostyn Group Ltd, Director (until 20 December 2022)
- Elders Limited, Director
- FCFA Management Leasing Pty Ltd, Chair
- Pro Ten Limited, Chair
- RAS Foundation Ltd, Chair
- Royal Agricultural Society of NSW Foundation, Councillor

Jennifer Douglas
BSc/LLB LLM MBA GAICD

Non-Executive Director

Commenced:
15 March 2018

Current Term:
15 March 2018
to 14 March 2025

Committees
- Chair, Board Regulatory Committee
- Member, Nominations Committee
- Member, Risk and Cyber Security Committee

Other Directorships
- GUD Holdings Limited, Director
- Judo Bank Pty Ltd, Director
- Judo Capital Holdings Limited, Director
- Peter MacCallum Cancer Foundation, Director
- St Kilda Football Club, Director

The Honourable Duncan Gay AM

Non-Executive Director

Commenced:
25 August 2020

Current Term:
25 August 2020
to 24 August 2024

Committees

- Member, Board Regulatory Committee
- Member, Nominations Committee
- Member, Safety, Human Resources and Environment Committee until 12 December 2022
- Acting Chair, Safety, Human Resources and Environment Committee from 13 December 2022

Other Directorships

- National Heavy Vehicle Regulator, Chair
- Bush Children's Education Foundation, Director
- Ministerial Advisory Committee on Freight, Chair
- Sir Earle Page Trust, Director
- MU Group, Executive Advisor

Vanessa Sullivan (Fernandes)

BEc(Hons), GradDip (AppFin), GAICD

Non-Executive Director

Commenced:
25 August 2020 until
9 December 2022

Committees

- Chair, Safety, Human Resources and Environment Committee, until 9 December 2022
- Member, Audit Committee, until 9 December 2022
- Member, Nominations Committee, until 9 December 2022

Other Directorships

- AGL Energy Limited, Director
- Bircher Capital, Director
- Centacare, Advisory Board member
- Eco Markets Australia, Director
- Niche Environment Heritage, Director
- Townsville Port, Director
- Sunwater, Director

John Cleland

BEc DipFinMan CA FFin, GAICD

CEO and Executive Director

Commenced:
18 July 2016

Committees

- Member, Board Regulatory Committee
- Attendee, Audit Committee
- Attendee, Risk and Cyber Security Committee
- Attendee, Safety, Human Resources and Environment Committee

Other Directorships

- Energy Networks Australia, Chair

Indemnity and insurance

Under the NSW Treasury Commercial Policy Framework, section 7 of TPP18-04 Directors and Officers Indemnity Policy for State Owned Corporations provides that State Owned Corporations must disclose indemnity and insurance details for directors and officers in their Annual Reports.

All directors are indemnified by Essential Energy to the extent permitted under their existing indemnities, all of which were approved by NSW Treasury at the time they were granted.

Essential Energy maintains Directors' and Officers' insurance cover in relation to legal liabilities that may be incurred by its directors and senior officers.

Board and Board Committee meetings held in 2022-23

TABLE 13: 1 JULY 2022 TO 30 JUNE 2023 DIRECTORS' ATTENDANCE SCHEDULE

	BOARD OF DIRECTORS' MEETINGS		AUDIT COMMITTEE MEETINGS		BOARD REGULATORY COMMITTEE MEETINGS		NOMINATIONS COMMITTEE MEETINGS		RISK AND CYBER SECURITY COMMITTEE MEETINGS		SAFETY, HUMAN RESOURCES AND ENVIRONMENT MEETINGS	
Director[1]	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**
D Halley	10	10	6	6	–	4	2	2	–	4	–	4
T Benson	10	8	6	6	–	–	2	2	4	4	–	–
R Clubb	10	8	–	2	–	1	2	2	4	4	4	4
J Douglas	10	9	–	–	4	4	2	2	4	4	–	1
D Gay	10	10	–	2	4	3	2	2	–	–	4	4
V Sullivan[2]	4	4	2	2	–	–	–	–	–	1	1	1
J Cleland[3]	10	9	6	6	4	4	2	2	4	4	4	4

A. Indicates number of meetings held during the period the director was entitled to attend as a member of the Board or relevant Committee.
B. Indicates the number of meetings attended by the director during the period.
1. All directors have the right to attend all Committee meetings, as per the Committee Charters, except when the Committee Chair determines conflict of interest in relation to matters to be discussed by the Committee.
2. Vanessa Sullivan (Fernandes) was on a leave of absence from the close of business on 26 October 2022 and resigned from the Essential Energy Board of Directors, effective 9 December 2022.
3. The CEO is a member of the Board Regulatory Committee and attends all other Committee meetings.

Executive Leadership Team

Organisation structure as at 30 June 2023

BOARD OF DIRECTORS

CHIEF EXECUTIVE OFFICER

John Cleland

Assets and Operations

Luke Jenner
Chief Operating Officer

- Asset Engineering Risk and Compliance
- Asset and Operational Excellence
- Enterprise Asset Management
- Network Investment and Maintenance
- Network Services
- Operations
- Network Strategy and Future Networks
- System Control

Corporate Affairs

Anne Pearson
Chief Corporate Affairs Officer

- Communications
- Corporate Strategy
- Regulatory Affairs
- Sustainability

Customer and Commercial

Justin Hiller
Chief Commercial Officer

- Commercial
- Commercial Development
- Commercial Strategy
- Corporate Services Transformation
- Customer
- Tele-communications Business Unit

eTech

Sarah McCullough
Chief Digital Officer

- Cyber Security
- Data
- Commercial, Vendor and IT Service Management
- Business Partnering and Program Delivery
- Operations
- Strategy, Architecture and Planning
- eTech Transformation

Governance and Corporate Services

Martin English
General Counsel and Company Secretary

- Business Change
- Enterprise Project Management Office
- Internal Audit
- Legal
- Governance
- Property Services
- Risk and Compliance
- Secretariat

People and Safety

Amalie Smith
Chief People Officer

- Employee Relations
- Organisational Safety
- People Learning and Capability Training
- People and Partnerships
- People Operations and Planning
- Workforce Alignment and Reward

Finance

Charlie Boyes
Chief Financial Officer

- Corporate Finance
- Financial Accounting
- Finance Business Partnering
- Financial Improvements and Projects
- Financial Operations
- Financial Planning and Analysis
- Procurement

Essential Energy's Executive Leadership Team as at 30 June 2023

John Cleland
BEc DipFinMan CA FFin, GAICD

Chief Executive Officer

Martin English
BFA LLB (Honours Class 1), FGIA, GAICD

General Counsel and Company Secretary

Luke Jenner
BEng (Hons), EMBA, GAICD

Chief Operating Officer

Anne Pearson
BA LLB (Hons), GAICD

Chief Corporate Affairs Officer

Charlie Boyes
BBus (Acc/HRM), MAppFin, CA

Chief Financial Officer

Justin Hillier
BBus, CA, GDipAppFinInv, FINSIA, GAICD

Chief Commercial Officer

Sarah McCullough
GradCertMgt(InfoTech), MBA(Comp), GAICD

Chief Digital Officer

Amalie Smith
MBA (Log&SupChaMgt), GradCertBusMgt, GAICD

Chief People Officer

The management of Essential Energy is led by the Chief Executive Officer (CEO) and Executive Leadership Team (ELT).

The CEO has the authority and responsibility for managing Essential Energy in accordance with the strategy, plans, practices, delegations and policies approved by the Board to achieve agreed objectives. In doing so, the CEO is accountable to the Board for the governance of the operations of the company, delivery of the agreed strategy and reform initiatives, and leads the ELT.

The ELT provides governance and oversight for matters of significance in relation to policy, strategy and governance frameworks for Essential Energy.

Senior Managers

At the end of the reporting period, Essential Energy employed 230 officers. Total remuneration packages are outlined in Table 14.

General principles for remuneration of Senior Managers

Essential Energy's remuneration strategies are designed to achieve the following objectives:

- attract, retain and motivate top calibre talent
- ensure high standards of behaviour are in line with Essential Energy's values
- align executive rewards to drive business performance.

This approach incorporates the following points:

- Essential Energy's Senior Managers are employed on individual, performance-based employment contracts
- total remuneration for on-target performance is at the 50th percentile to market. Mercer CED methodology is used to grade positions and establish benefit levels and broad banded ranges
- remuneration consists of the following components:
  - Fixed Annual Remuneration (base and superannuation)
  - Variable (at risk) Remuneration – annual Short-Term Incentive.

Fixed remuneration

As a condition of employment, fixed remuneration of Senior Managers is reviewed in line with market trends annually effective 1 July and is based on a performance assessment of each Senior Manager. Variations are also occasionally made at other times of the year in response to market and job scope adjustments. In approving increases to the fixed remuneration of Senior Managers, the Board considers economic conditions, energy sector employment market, market benchmarks, the movement in the superannuation guarantee rate and outcomes of performance assessments.

Annual Short Term Incentive payments

Annual Short Term Incentive Payments are made to eligible Senior Managers on the basis of performance assessed against agreed measures and targets aligned to Essential Energy's Corporate Plan and Statement of Corporate Intent (SCI). Payment is contingent on achieving minimum quantitative threshold organisational Key Result Areas, assessment of individual leadership performance and the delivery of Priority Actions. The Board reviews the performance assessments and approves all annual performance payments for the CEO and ELT. The remaining Senior Managers are reviewed by either the CEO or relevant Executive. All payments are subject to Board discretion, with payment outcomes approved in consideration of organisational and individual performance.

Remuneration percentages

From 1 July 2022, Senior Manager fixed remuneration was increased overall by 3.0 per cent. Total remuneration for Senior Managers, including Short Term Incentive payments, accounted for 12.0 per cent of Essential Energy's employee-related expenditure in 2022-23, compared with 10.9 per cent in 2021-22.

TABLE 14: SENIOR MANAGERS BY BAND (GENDER AND AVERAGE REMUNERATION)

	GENDER 30 JUNE 2023		GENDER 30 JUNE 2022		AVERAGE REMUNERATION 30 JUNE 2023	AVERAGE REMUNERATION 30 JUNE 2022
BAND	**F**	**M**	**F**	**M**		
Above Band 4		3		3	$814,098	$758,343
Band 4	3		1	2	$524,013	$519,671
Band 3		5	2	3	$422,798	$406,791
Band 2	6	20	5	18	$317,764	$308,781
Band 1	49	144	45	128	$231,762	$224,701
Totals	**58**	**172**	**53**	**154**		

Code of Conduct

Essential Energy's Code of Conduct sets out the corporate values and behaviours expected of employees. Supporting the Code is the Statement of Business Ethics, which sets out the business principles for Essential Energy's dealings with suppliers. Both documents are available online at essentialenergy.com.au.

Continued communications via internal publications provide employees with an understanding of ethical behaviour, their obligations and rights in reporting behaviour that is not in keeping with Essential Energy's Code of Conduct, and of the protections available to them if their report is assessed to be a Public Interest Disclosure pursuant to the *Public Interest Disclosures Act 1994*. This encourages a positive reporting culture and a workforce that is well educated on behavioural and ethical expectations.

Summary of 'if not, why not' reporting

The NSW Treasury Commercial Policy Framework: Guidelines for Governing Boards of Government Businesses TPP17-10 includes recommendations for corporate governance, and a requirement for 'if not, why not' reporting where these recommendations have not been adopted.

Essential Energy reviews its practices regularly and has adopted all recommendations.

Risk management

Essential Energy's Risk Management Framework is designed to meet stakeholder expectations for a safe, affordable and reliable electricity supply.

Essential Energy's risk management principles are designed to:

- provide a healthy and safe environment for employees and for the public
- promote a culture which empowers employees to effectively manage safety risks
- provide affordable and reliable electricity to customers through continuous improvement in operations, prioritising allocation of resources to activities that deliver the greatest value
- manage reliability risks through planning
- empower employees to achieve organisational objectives and to attract, retain and develop qualified and commercially capable people
- manage operations and partner with stakeholders to protect and enhance the environment
- develop objectives and plans in response to opportunities and risks in the environment
- embed appropriate governance and monitoring to support the delivery of benefits from initiatives and change programs
- comply with obligations and ensure timely and appropriate action plans are in place to support known regulatory changes or in response to actual or potential compliance and regulatory issues
- proactively engage with stakeholders including customers, the community, suppliers, government and regulators
- ensure the business' priorities appropriately balance stakeholder expectations and concerns
- maintain appropriate controls and reporting to support sound financial management and stewardship of resources and satisfactory returns for shareholders.

Essential Energy's risk management practices are aligned to the NSW Treasury's Risk Management Toolkit for NSW Public Sector Agencies, the Audit Office of NSW Governance Lighthouse Model and AS/NZS ISO 31000:2009 – Risk Management – Principles and Guidelines.

The Risk Management Framework is being progressively linked to the Asset Management System to improve risk quantification, the granularity of risk information used to prioritise rectification of asset defects, and risk-informed investment decision optimisation.

BUSINESS RISK CATEGORIES

Safety	Fatality/serious injury of employee or member of public
Network	Significant customer impact related to network reliability
Customer	Significant customer impact related to other customer service targets
Finance	Significant unbudgeted financial loss
Compliance	Liability associated with a dispute or material breach of legislation or licence
Reputation	Sustained public criticism of Essential Energy
Environment	Significant environmental incident
People	Failure to deliver performance through people
Strategy	Strategic objectives are not delivered, and business opportunities are lost
ICT	Significant ICT system failure

Incident management and business continuity

Essential Energy is committed to maintaining continuity of supply and business functions during network-related and other events.

In line with better practice, Essential Energy has adopted an all-hazards approach to business continuity, where functional plans (such as recovery action plans, incident management plans and disaster recovery plans) are designed to work together, adapt and scale to respond to unplanned events.

This approach has been successfully used for major incidents during the reporting period including floods in NSW in February 2022 and Essential Energy's continued response to COVID-19.

Essential Energy's Business Resilience Framework (BRF) is aligned to ISO 22313 – Societal security – Business continuity management systems and is a key control for business risk categories including Safety, Network, Customer, Reputation and ICT. The BRF includes assessments to identify critical functions requiring recovery action plans, plans for the management of specific business disruption events and incidents, and plans for the recovery of critical information, communication and technology systems.

Insurance

Essential Energy reviews the adequacy of insurance policy coverage and limits annually, as a key control for the 'Finance' business risk category. Risks are insured through either the commercial insurance market or Insurance and Care NSW where appropriate. Management processes are in place to ensure effective governance of claims.

Compliance

Essential Energy's Compliance Management Plan (CMP) is aligned to the International Standard ISO 19600:2015 Compliance Management Systems – Guidelines, as well as the Audit Office of NSW Governance Lighthouse – Strategic Early Warning System, and is a key control for the business risk category 'Compliance'. The CMP documents Essential Energy's approach to compliance management and the minimisation of the risk of non-compliance.

Fraud and corruption management

The Essential Energy Fraud and Corruption Control System (FCCS) is a key control for business risk categories – including Finance, Compliance and Reputation – and sets out the key initiatives for fraud control activities at Essential Energy. These activities are linked to areas of high risk of significant impact as identified in Essential Energy's Fraud Risk Register. The FCCS applies to all employees and any other person undertaking work in the company.

Public Interest Disclosures

Essential Energy is committed to the values, standards and principles outlined in its Code of Conduct, including whistle-blowing protections available to individuals who report wrongdoing. In compliance with the *Public Interest Disclosures Act 1994* (PID Act), Essential Energy has a policy for receiving, assessing and investigating Public Interest Disclosures (PIDs).

Employees are informed of the contents of the policy and the protection available under the PID Act through the regular publication of information about Essential Energy's reporting processes.

During 2022-23, Essential Energy received two complaints in relation to corrupt conduct and assessed these as PIDs under the PID Act. No PIDs were made under a statutory or other legal obligation. There were no PIDs received in relation to government information contravention, serious and substantial waste of public money, or maladministration. Essential Energy finalised two PIDs during the financial year.

Internal Audit

The Board and ELT are committed to ensuring the independence and effectiveness of the internal audit function.

Internal audits increase management's understanding of, and confidence in, Essential Energy's ability to achieve its objectives by adopting a risk-based approach to evaluating controls and improving processes.

During the year, Essential Energy completed 17 internal audits across the organisation, with suitable actions implemented to address key issues identified. Essential Energy's Internal Audit function undertakes yearly quality reviews in accordance with the function's quality assurance and improvement program, generally confirming conformance to the requirements of the International Professional Practices Framework and the accompanying Standards.

The Audit Committee reviews and approves the outcomes of internal audit activity.

External Audit

The NSW Auditor-General provides independent external audit services through the NSW Audit Office.

The Auditor-General does not provide other services to Essential Energy.

The Audit Committee reviews the NSW Audit Office Annual Engagement Plan, issues raised in the Engagement Closing Report and Management Letter, and the results of the annual audit of financial statements.

Financial performance

CONTENTS

FINANCE REPORT

KEY FINANCIAL MEASURES	2022-23 RESULT	2021-22 RESULT	2022-23 SCI[1]	VARIATION TO PRIOR YEAR	VARIATION TO SCI
Revenue ($M)	1,715.4	1,603.1	1,625.3	112.3	90.1
Operating Expenditure ($M)	936.4	836.1	905.5	100.3	30.9
Earnings before interest, tax, depreciation and amortisation (EBITDA) ($M)	779.0	767.0	719.8	12.0	59.2
Earnings before interest and tax (EBIT) ($M)	319.7	353.0	265.8	(33.3)	53.9
Operating profit (loss) before tax ($M)	(11.6)	44.7	(33.2)	(56.3)	21.6
Operating profit (loss) after tax ($M)	(8.1)	31.2	(23.3)	(39.3)	15.2
Total Distribution (dividend + current income tax expense + government guarantee fee) ($M)	105.8	105.2	118.1	2.3	(12.3)
Return on capital employed (per cent)[2]	3.3%	4.0%	3.1%	(0.7%)	0.2%
Return on assets (per cent)[2]	3.0%	3.7%	2.9%	(0.7%)	0.1%
Return on equity (per cent)[2]	(0.2%)	1.1%	(1.0%)	(1.4%)	0.8%
Capital Expenditure ($M)[3]	564.2	465.6	551.8	98.6	12.4
Gearing (%)	63.8%	66.0%	73.3%	(2.2%)	(9.5%)

1. SCI – Statement of Corporate Intent.
2. Return ratios include customer contributions (including gifted assets) and excludes the revaluation adjustments as at 30 June 2023 ($522M increase in reserves and $650M increase in assets).
3. Capital Expenditure excludes gifted assets.

Performance against prior year

The operating loss after tax for the year was $8.1M, compared to a $31.2M profit in 2021-22. This change was primarily a result of:

- Higher operating expenditure of $100.3M, including higher non-labour maintenance costs of $39.3M, higher employee costs of $28.0M, higher pass-through costs of $11M due to 2022-23 tariffs and a higher loss on disposal of property, plant and equipment of $31.1M which included the transfer for nil consideration of $22.7M of networks assets to Transgrid. 2021-22 included gas on sale of generation assets.
- Higher depreciation, amortisation and impairment costs of $45.3M, mainly due to additional depreciation on the 30 June 2022 asset revaluation increase of $1,050M.
- Higher Finance costs of $23.0M due to higher indexed debt costs and increase in costs of new debt.
- This was partly offset by higher revenue of $112.M, including higher gifted and customer contributed assets of $132.7M due to significant renewable and other customer developments and higher network revenue of $36.1M due to tariff increases.

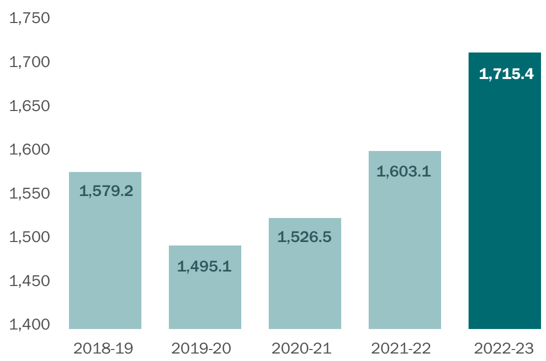
The increase in EBITDA of $12.0M from the prior year was mainly a result of the higher revenue.

Capital expenditure was $98.6M higher than the prior year reflecting significant customer funded and internally funded network capital works. The prior year was hampered by floods and COVID-19 supply constraints.

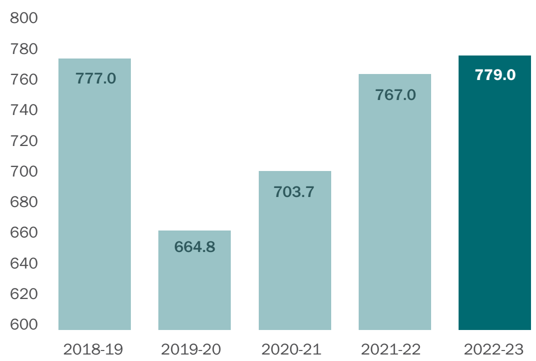
Borrowings

Total borrowings increased by $231.5M over the year (including capitalised indexation and movements in deferred interest, premiums and discounts) to fund the planned capital expenditure program. The gearing ratio, calculated as net debt divided by debt plus equity at year end, decreased from 66.0 per cent to 63.8 per cent due to the revaluation of property, plant and equipment increasing the Company's reserves. The debt strategy is to achieve a 10-year trailing average portfolio aligned to the Australian Energy Regulator's allowances. This results in approximately 90 per cent of debt being non-current.

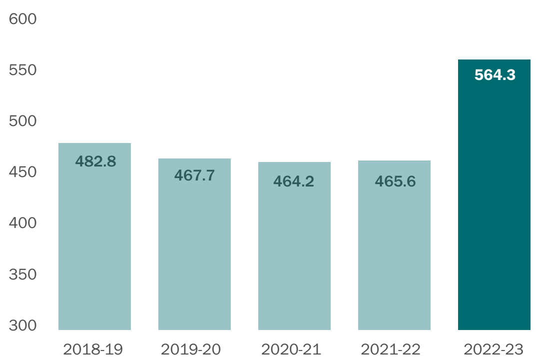
TOTAL REVENUE ($M)



EBITDA ($M)



CAPEX ($M)



Shareholder return

Return on capital employed, return on assets, and return on equity all decreased compared to the 2021-22 returns due to the decrease in profitability for the year.

Essential Energy's distributions to the NSW Government for 2022-23 marginally increased to $105.8M compared to $105.2M in 2021-22. Distributions consisted of current income tax expense of $2.4M and government guarantee fee on debt of $103.4M. No dividend was paid or provided for in 2022-23.

Performance against Statement of Corporate Intent

Essential Energy is required by legislation to submit a Statement of Corporate Intent (SCI) to the shareholders.

The SCI encompasses the budget and represents the performance agreement between Essential Energy and its shareholders, outlining its objectives and defining its obligations to shareholders.

A key focus for Essential Energy is on achieving best practice levels of efficiency to deliver real and sustainable reductions in network charges and achieving a satisfactory return on capital employed.

Loss after tax of $8.1M against a budgeted loss of $23.3M was a result of:

- favourable revenue of $90.1M, mainly gifted and customer contributed assets
- unfavourable operating expenses of $30.9M, mainly due to higher loss on asset disposals of $36M
- an increase in depreciation, amortisation and impairment of $5.3M due to revaluation impacts
- unfavourable finance costs of $32.2M
- unfavourable income tax expense of $6.5M

Capital expenditure was $12.4M higher than budget mainly due to higher customer contributed capital works of $14.5M.

Investment and Liability Management Performance

Essential Energy does not have surplus funds invested.

INDEPENDENT AUDITOR'S REPORT

Essential Energy

To Members of the New South Wales Parliament

Opinion

I have audited the accompanying financial statements of Essential Energy (the Corporation), which comprise the Statement by Directors, the Statement of Comprehensive Income for the year ended 30 June 2023, the Statement of Financial Position as at 30 June 2023, the Statement of Changes in Equity and the Statement of Cash Flows, for the year then ended, notes comprising a Reporting Entity statement, Basis of Preparation, Accounting Policies and Significant Changes, and other explanatory information.

In my opinion, the financial statements:

- have been prepared in accordance with Australian Accounting Standards and the applicable financial reporting requirements of the *Government Sector Finance Act 2018* (GSF Act), the Government Sector Finance Regulation 2018 (GSF Regulation) and the Treasurer's Directions
- presents fairly the Corporation's financial position, financial performance and cash flows

My opinion should be read in conjunction with the rest of this report.

Basis for Opinion

I conducted my audit in accordance with Australian Auditing Standards. My responsibilities under the standards are described in the 'Auditor's Responsibilities for the Audit of the Financial Statements' section of my report.

I am independent of the Corporation in accordance with the requirements of the:

- Australian Auditing Standards
- Accounting Professional and Ethical Standards Board's APES 110 'Code of Ethics for Professional Accountants (including Independence Standards)' (APES 110).

Parliament promotes independence by ensuring the Auditor-General and the Audit Office of New South Wales are not compromised in their roles by:

- providing that only Parliament, and not the executive government, can remove an Auditor-General
- mandating the Auditor-General as auditor of public sector agencies
- precluding the Auditor-General from providing non-audit services.

I have fulfilled my other ethical responsibilities in accordance with APES 110.

I believe the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Level 19, Darling Park Tower 2, 201 Sussex Street, Sydney NSW 2000
GPO Box 12, Sydney NSW 2001 | **t** 02 9275 7101 | mail@audit.nsw.gov.au | audit.nsw.gov.au

Key Audit Matters

Key audit matters are those matters that, in my professional judgement, were of most significance in my audit of the financial statements for the year ended 30 June 2023. These matters were addressed in the context of my audit of the financial statements as a whole, and in forming my opinion thereon. I do not provide a separate opinion on these matters. I have determined the matters described below to be the key audit matters to be communicated in my report.

Key Audit Matter	How my audit addressed the matter
Fair value of system assets	
At 30 June 2023, the Corporation's statement of financial position reported $10.0 billion in system assets, $100.3 million in easements and $301.3 million in land and buildings (collectively 'distribution network assets'). These assets are measured at fair value using the income approach valuation technique. The valuation technique is based on a discounted cash flow (DCF) model, which is assessed at each reporting date. System assets are highly specialised and accounted for 98 per cent of the total property, plant and equipment balance. We consider this to be a key audit matter because: • system assets are financially significant • the DCF model is complex and involves significant judgements and assumptions • changes in assumptions, such as the discount rate, the terminal Regulated Asset Base multiple and forecast cash flows, can significantly affect the fair value.	Key audit procedures included the following: • obtaining an understanding of management's approach to estimating the fair value of distribution network assets in the current year • assessing whether the DCF model incorporates all key assumptions and inputs relevant to valuing distribution network assets of an electricity distribution entity and meets the requirements of Australian Accounting Standards • assessing the reasonableness of all the key assumptions and sensitivity of the conclusions to changes in the assumptions • reviewing the model's mathematical accuracy • assessing the adequacy of the financial statement disclosures against the requirements of applicable Australian Accounting Standards.
Accrued revenue from unread meters	
At 30 June 2023, the Corporation's statement of financial position recorded accrued revenue from unread meters of $173.9 million. 'Network use of system' revenue is recognised when electricity is used by customers. Electricity usage is billed on the basis of periodic meter readings. At 30 June, many customers had electricity usage which had not been subject to a meter read. The Corporation uses a model to estimate the revenue accrual for unread meters. A new unread meter accrual reporting platform was implemented in 2022-23 and the previous reporting system COGNOS was retired. We consider this to be a key audit matter because the model used to estimate the revenue accrual is complex and there are significant judgements and uncertainty involved in calculating this accrual, such as: • the amount of electricity loss in transit between the distribution network and the end customers (Distribution Loss Factors (DLF)) • sensitivity of accrued revenue to minor movements in DLF • different rates and types of revenue charges (for example network access, solar feed-in and	Key audit procedures included the following: • obtaining an understanding of management's approach and key controls to estimate the revenue accrual from unread meters • evaluating management's key assumptions on energy consumption, charges and DLF used to determine the unbilled network usage charges • assessing the historical accuracy of the estimate against subsequent actual billings.

Key Audit Matter	How my audit addressed the matter
demand charges) for residential and commercial customers • some inputs including energy consumption are based on historical data trends.	

Director's Responsibilities for the Financial Statements

The Directors are responsible for the preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards, the GSF Act, GSF Regulation, Treasurer's Directions and the *State Owned Corporations Act 1989*. The Directors' responsibility also includes such internal control as the Directors determine is necessary to enable the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Corporation's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting.

Auditor's Responsibilities for the Audit of the Financial Statements

My objectives are to:

- obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error
- issue an Independent Auditor's Report including my opinion.

Reasonable assurance is a high level of assurance, but does not guarantee an audit conducted in accordance with Australian Auditing Standards will always detect material misstatements.

Misstatements can arise from fraud or error. Misstatements are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions users take based on the financial statements.

A description of my responsibilities for the audit of the financial statements is located at the Auditing and Assurance Standards Board website at: www.auasb.gov.au/auditors_responsibilities/ar6.pdf. The description forms part of my auditor's report.

The scope of my audit does not include, nor provide assurance:

- that the Corporation carried out its activities effectively, efficiently and economically
- about the security and controls over the electronic publication of the audited financial statements on any website where they may be presented
- about any other information which may have been hyperlinked to/from the financial statements.

Renee Meimaroglou
Director, Financial Audit

Delegate of the Auditor-General for New South Wales

21 September 2023
SYDNEY

FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2023

Statement of Comprehensive Income

FOR THE YEAR ENDED 30 JUNE 2023

	Notes	2023 $M	2022 $M
Profit or loss			
Network revenue from contracts with customers	2(a)	**1,377.6**	1,341.5
Other revenue from contracts with customers	2(b)	**306.7**	235.9
Total revenue from contracts with customers		**1,684.3**	1,577.4
Other revenue	2(c)	**31.1**	25.7
Total revenue		**1,715.4**	1,603.1
Pass-through costs	3(a)	**(315.5)**	(304.5)
Operating expenses	3(b)	**(577.5)**	(519.3)
Loss on disposal or write-off of non-financial assets	3(c)	**(43.4)**	(12.3)
Earnings before interest, taxation, depreciation and amortisation (EBITDA)		**779.0**	767.0
Depreciation, amortisation and impairment	3(d)	**(459.3)**	(414.0)
Earnings before interest and taxation (EBIT)		**319.7**	353.0
Finance costs	3(e)	**(331.3)**	(308.3)
(Loss)/profit before income tax		**(11.6)**	44.7
Income tax expense	4(a)	**3.5**	(13.5)
(Loss)/profit for the year		**(8.1)**	31.2
Other comprehensive income			
Items that will not be reclassified subsequently to profit or loss			
Actuarial gains/(losses) on remeasurement of superannuation defined benefits	23(f)	**(4.1)**	21.7
Gain on revaluation of assets	7 & 8	**650.0**	1,050.0
Reversal of revaluation reserve on disposal of assets		**(2.3)**	(6.0)
Income tax expense relating to these items	4(b)	**(193.1)**	(319.7)
		450.5	746.0
Items that will be reclassified subsequently to profit or loss			
Gains on cash flow hedges		**0.4**	0.3
Income tax expense relating to these items	4(b)	**(0.1)**	(0.1)
		0.3	0.2
Total other comprehensive income for the year		**450.8**	746.2
Total comprehensive income for the year		**442.7**	777.4

The accompanying notes form part of these financial statements.

Statement of Financial Position

AS AT 30 JUNE 2023

	Notes	30 June 2023 $M	30 June 2022 $M
Assets			
Current assets			
Cash and cash equivalents	5	**2.5**	2.4
Trade and other receivables	6	**270.2**	275.3
Inventories		**58.1**	45.4
Income tax receivable		**5.7**	–
Total current assets		**336.5**	323.1
Non-current assets			
Trade and other receivables		**6.0**	6.5
Property, plant and equipment	7	**10,593.4**	9,727.3
Intangible assets	8	**163.6**	156.0
Right-of-use assets	21	**31.1**	33.1
Other non-current assets		**0.3**	0.3
Total non-current assets		**10,794.4**	9,923.2
Total assets		**11,130.9**	10,246.3
Liabilities			
Current liabilities			
Trade and other payables	9	**297.8**	289.7
Contract liabilities	10	**12.4**	2.9
Interest bearing liabilities	11	**708.5**	585.9
Current tax liabilities		**–**	0.9
Provisions	12	**207.0**	202.2
Deferred revenue	13	**–**	2.1
Total current liabilities		**1,225.7**	1,083.7
Non-current liabilities			
Contract liabilities	10	**28.9**	23.3
Interest bearing liabilities	11	**5,638.3**	5,529.4
Deferred tax liabilities	4(c)	**613.0**	425.7
Provisions	12	**28.7**	33.0
Total non-current liabilities		**6,308.9**	6,011.4
Total liabilities		**7,534.6**	7,095.1
Net assets		**3,596.3**	3,151.2
Equity			
Contributed equity		**130.5**	130.5
Reserves		**2,341.6**	1,887.9
Retained earnings		**1,124.2**	1,132.8
Total equity		**3,596.3**	3,151.2

The accompanying notes form part of these financial statements.

Statement of Changes in Equity

FOR THE YEAR ENDED 30 JUNE 2023

	Contributed Equity $M	Asset Revaluation Reserve $M	Hedge Revaluation Reserve $M	Retained Earnings $M	Total Equity $M
Balance at 1 July 2022	**130.5**	**1,888.2**	**(0.3)**	**1,132.8**	**3,151.2**
Loss for the year	**–**	**–**	**–**	**(8.1)**	**(8.1)**
Other comprehensive income					
Actuarial gains on remeasurement of superannuation defined benefits net of tax	**–**	**–**	**–**	**(2.9)**	**(2.9)**
Net increase in reserves net of tax	**–**	**455.0**	**0.3**	**–**	**455.3**
Reclassification on disposal of assets		**(1.6)**	**–**	**2.4**	**0.8**
Total comprehensive income	**–**	**453.4**	**0.3**	**(8.6)**	**445.1**
Balance at 30 June 2023	**130.5**	**2,341.6**	**–**	**1,124.2**	**3,596.3**
Balance at 1 July 2021	130.5	1,157.3	(0.5)	1,080.5	2,367.8
Profit for the year	–	–	–	31.2	31.2
Other comprehensive income					
Actuarial gains on remeasurement of superannuation defined benefits net of tax	–	–	–	15.1	15.1
Net increase in reserves net of tax	–	735.0	0.2	–	735.2
Reclassification on disposal of assets		(4.1)	–	6.0	1.9
Total comprehensive income	–	730.9	0.2	52.3	783.4
Balance at 30 June 2022	130.5	1,888.2	(0.3)	1,132.8	3,151.2

The accompanying notes form part of these financial statements.

Statement of Cash Flows

FOR THE YEAR ENDED 30 JUNE 2023

	Notes	2023 $M	2022 $M
Cash flows from operating activities			
Receipts from customers		**1,706.0**	1,617.4
Payments to suppliers and employees		**(1,056.5)**	(976.5)
Interest paid		**(301.5)**	(260.3)
Income tax received/(paid)		**(8.8)**	18.0
Net cash inflow from operating activities	22	**339.2**	398.6
Cash flows from investing activities			
Payments for property, plant and equipment and intangible assets		**(551.4)**	(452.7)
Proceeds from sale of property, plant and equipment		**4.2**	21.0
Net cash outflow from investing activities		**(547.2)**	(431.7)
Cash flows from financing activities			
Proceeds from borrowings		**210.2**	76.0
Repayment of borrowings		**–**	(40.0)
Payment of principal portion of lease liabilities		**(2.1)**	(3.7)
Net cash inflow from financing activities	11	**208.1**	32.3
Net increase/(decrease) in cash and cash equivalents		**0.1**	(0.8)
Cash and cash equivalents at the beginning of the year		**2.4**	3.2
Cash and cash equivalents at the end of the year	5	**2.5**	2.4

The accompanying notes form part of these financial statements.

1. Reporting Entity, Basis of Preparation, Accounting Policies and Significant Changes

Reporting Entity

Essential Energy (the Corporation) is a New South Wales (NSW) statutory state owned corporation incorporated under the *State Owned Corporations Act 1989*. The Corporation is controlled by the State of NSW, which is the ultimate parent. Accordingly, the Corporation's financial statements form part of the consolidated NSW Total State Sector Accounts.

The Corporation is classified as a for-profit entity for the purposes of the application of Australian Accounting Standards and after consideration of all factors contained in NSW Treasury Policy *TPP21-7 Distinguishing For-Profit from Not-For-Profit Entities*. The Corporation's principal activities involve the distribution of electricity, mainly in regional NSW and delivery of water services within far west NSW.

The financial statements of the Corporation are comprised of the Corporation only. Separate financial statements are not presented for the wholly owned subsidiary Intium Pty Limited (Intium) which was registered on 13 January 2023, is dormant and meets the definition of a small agency in Section 9D of the *GSF Regulations*. Intium had $50 of share capital and receivables at 30 June 2023.

Basis of Preparation

The financial statements comprise a general purpose financial report which has been prepared in accordance with Australian Accounting Standards Board standards (AASBs) (including the Australian Accounting Interpretations) adopted by the Australian Accounting Standards Board, the requirements of the *Government Sector Finance Act 2018*, the *Government Sector Finance Regulation 2018*, and the Treasurer's directions issued under the *Government Sector Finance Act 2018*. The financial statements of the Corporation also comply with International Financial Reporting Standards (IFRS) and interpretations adopted by the International Accounting Standards Board.

Items of property, plant and equipment and intangible assets are stated at their fair value. Other financial statement items are prepared on a historical cost basis except where specified otherwise.

Unless otherwise indicated, the accounting policies set out below have been applied consistently to all periods presented in the financial statements.

When the presentation or classification of items in the financial statements is amended in respect of changes in the current year, the comparative amounts are reclassified to enhance comparability unless the reclassification is impracticable.

The financial statements are presented in Australian dollars which is the Corporation's presentation and functional currency. The amounts shown in the financial statements have been rounded to the nearest tenth of a million dollars, unless otherwise stated. Foreign currency transactions are converted to Australian currency at the exchange rates at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are converted to Australian currency at the exchange rates at the end of the reporting date. Differences arising on settlement or translation of monetary items are recognised in net result. Non-monetary items measured at fair value in a foreign currency are translated to Australian currency using the exchange rates at the date when the fair value is determined.

Use of Estimates and Judgements

The preparation of financial statements requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

Judgements made by management in the application of AASBs that have significant effect on the financial statements and estimates with a significant risk of material adjustment are discussed in the respective notes.

Coronavirus (COVID-19) Impact

COVID-19, which is a respiratory illness caused by a virus, was declared a world-wide pandemic by the World Health Organisation in 2020. COVID-19, as well as measures to slow the spread of the virus, have since had a significant impact on global economies and equity, debt and commodity markets. The Corporation's management has considered the impact of COVID-19 in preparing the financial statements.

The effects of COVID-19 on the ability to collect revenue have been considered for the purposes of estimating the expected credit loss (ECL). Management has considered the latest available information and trends and has determined that there is no requirement for additional COVID-19 specific provisions as at the reporting date.

Because of COVID-19, management evaluated whether there were any additional areas of judgement or estimation uncertainty beyond what has been disclosed in the notes to these financial statements. The main areas considered were fair value of property, plant and equipment, impairment of Cash Generating Units, intangible assets and right-of-use assets, provision of expected credit losses, liquidity risk and going concern, supplier obligations and subsequent events. No material impacts were noted from this evaluation.

Climate Change

Essential Energy is committed to supporting the transition to a net zero economy and managing the impacts of climate change. Climate change and its associated transition path to net zero presents Essential Energy with a unique portfolio of risks and opportunities. The Corporation's strategy to manage the risks associated with climate change will be detailed in the Task Force on Climate-related Financial Disclosure 2022-23 (TCFD).

In preparing the financial report, the key judgements and estimates consider the range of economic conditions that are forecast to exist over the remaining useful lives of assets, including expectations about future operations, the current outlook for commodity prices, discount rates, capital expenditure requirements and market supply and demand profiles.

Climate change may impact those areas of the financial statements that are subject to estimation uncertainties. While no specific measurable impacts have yet been determined, Essential Energy will continue to assess the significant judgements and estimates in the following notes to the financial statements:

- Property, plant and equipment – fair value (Note 7)
- Impairment of non-current assets (Note 7(iv))
- Property, plant and equipment – useful lives (Note 7(v)).

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined using the average purchase price of each item.

Share Capital

The Corporation is incorporated under the State-Owned Corporations Act 1989 with issued capital of two fully paid $1 ordinary shares.

Current shareholders are the Treasurer and the Minister for Finance and Natural Resources on behalf of the NSW Government. The holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled to one vote per share at meetings of the Corporation. The $2 share capital is included in Contributed Equity in the Statement of Financial Position.

Goods and Services Tax

Revenues, expenses and assets are recognised net of the amount of Goods and Services Tax (GST), except where the amount of GST incurred is not recoverable from the taxation authority. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or as part of the expense.

Receivables and payables are stated with the amount of GST included. The net amount of GST recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Statement of Financial Position.

Cash flows are included in the Statement of Cash Flows on a gross basis. The GST components of cash flows arising from investing and financing activities which are recoverable from, or payable to, the taxation authority are classified as operating cash flows.

Other Accounting Polices

Significant and other accounting policies that summarise the recognition and measurement basis used and are relevant to an understanding of the financial statements are provided throughout the notes to the financial statements.

New and Revised Accounting Standards and Australian Accounting Interpretations

No new accounting standards and interpretations apply for the first time in the 2023 financial year. Accounting standard amendments did not have a material impact on the financial statements of the Corporation.

2. Revenue

	Note	2023 $M	2022 $M
Revenue from contracts with customers			
(a) Network revenue from contracts with customers			
Electricity distribution		**1,355.7**	1,317.9
Water and sewerage		**21.9**	23.6
		1,377.6	1,341.5
(b) Other revenue from contracts with customers			
Ancillary Services		**24.9**	24.8
Metering Services		**29.5**	28.3
Public Lighting		**12.2**	11.4
– Gifted assets and customer contributions received		**210.0**	139.1
– Recognition of prepaid capital contributions revenue	10	**1.9**	2.3
Recoverable capital works		**20.1**	18.0
Other revenue		**8.1**	12.0
		306.7	235.9
Total revenue from contracts with customers		**1,684.3**	1,577.4
(c) Other revenue			
Government grants and subsidies		**26.6**	24.6
Lease revenue		**4.5**	1.1
		31.1	25.7

Recognition and Measurement

Revenue from contracts with customers is recognised when control of the goods and services is transferred to the customer at an amount that the Corporation expects to be entitled in exchange for those goods or services. The Corporation has concluded that it is the principal in its revenue arrangements. Revenue is measured with reference to the fair value of the consideration received or receivable. There are no material incremental costs of obtaining contracts in any of the arrangements. The Corporation does not adjust the consideration for the effects of a financing component as it receives payment at or shortly after the point of sale. Revenue is recognised for the major business activities as follows:

(i) Electricity Distribution, Ancillary Services, Metering, Public Lighting and Water and Sewerage Treatment (‘Water’) Revenue

The Corporation derives Electricity Distribution, Ancillary Services, Metering, Public Lighting and Water revenue from the provision of electricity distribution and provision of public lighting, meter reading and servicing, water and other network-related services. Tariffs are set by regulators and generally include a fixed component and an amount based on the amount of electricity or water used by the customer. The performance obligation in these arrangements is satisfied over time because the customer simultaneously receives and consumes the benefits as the Corporation provides the service. Sales Revenue is recorded based on the regulatory approved tariff and volumes distributed.

Unbilled electricity distribution and water revenue (unread meters) is estimated based on the historical consumption of customers and prices per customer class. The key assumption applied in calculating the unread meters revenue accrual is the Distribution Loss Factors (DLF).

The determination of inputs used is based on historical trends and revenue accrued is materially sensitive to minor movements in DLF. An increase in half of one percentage point in DLF will result in a change in accrued revenue of $6.0M (2022: $6.0M).

The Corporation is subject to regulatory revenue caps and recovery of certain pass-through costs. No liability or asset is recognised for any adjustment that may be made to future prices to reflect any excess or shortfall in revenue as such an adjustment relates to the provision of future services. The following three components of electricity distribution are subject to a revenue cap or pass-through restrictions which may result in an adjustment to future prices:

- Distribution Use Of System Revenue: The Corporation operates under a revenue cap pricing framework being the Maximum Allowed Revenue as determined by the Australian Energy Regulator (AER) for each year of a determination period.
- Transmission Use Of System Revenue: Revenue relates to transmission costs, which operates as a pass-through cost to customers of actual transmission costs paid to transmission network service providers and embedded generators.
- Climate Change Fund Revenue: Revenue relates to the receipt of contributions to the Climate Change Fund, which operates as a pass-through cost to customers based on the actual contributions paid to NSW Treasury.

The Corporation's total revenue was not materially impacted by the COVID-19 pandemic.

(ii) Capital Contributions

The Corporation receives cash and non-cash contributions from customers and developers, mainly towards the capital cost of network connections and public lighting.

The performance obligation in these arrangements is satisfied at a point in time, being at the time the customer is connected to the network or the Corporation takes control of the asset. Cash capital contributions are initially recorded as liabilities. Once the network asset is completed or modified and connected to the network as outlined in the terms of the contract, the contribution amount is transferred to revenue.

Contributions of non-current assets are recognised as revenue and an asset when the Corporation gains control of the asset. The fair value of contributed assets is recognised as property, plant and equipment at the date at which control is gained and the assets are ready for use.

(iii) Other Revenue from Contracts with Customers

The Corporation provides other services such as connection services and unregulated meter services. The revenue for one-off services is recognised at a point in time and the revenue for on-going services is recognised over time as the services are performed. The Corporation also sells inventory items and scrap and recovers the cost of certain works from customers. These are recognised at a point in time once the items have been delivered or the construction work is complete.

(iv) Other Revenue

Government Grant Revenue

Government grants represent assistance by NSW Government and NSW Government agencies in cash or non-cash resources in return for past or future compliance with certain conditions. Where government grants are received in advance, they are initially recognised in the Statement of Financial Position as deferred revenue and are subsequently recognised as revenue when the Corporation complies with the conditions attaching to them, in accordance with AASB 120 Accounting for Government Grants and Disclosure of Government Assistance.

Grants that compensate the Corporation for the cost of an asset or revenue foregone are recognised in profit or loss as revenue on a systematic basis over the useful life of the asset.

Grants that compensate the Corporation for expenses incurred are recognised as revenue in profit or loss in the same period in which the expenses are incurred.

Non-cash resources are recognised at their fair value.

Revenue grants of $26.6M (2022: $24.6M) have been received from NSW Treasury which administers the Restart NSW Fund. The grant is for the bulk water supply charge being levied by Water NSW associated with a pipeline from Wentworth to Broken Hill which is not recovered through water tariffs.

Lease Revenue

The Corporation leases out its properties, including premises, land and communications towers, under operating lease agreements at market rentals, predominantly on a fixed term basis.

Rental income arising from operating leases is accounted for on a straight-line basis over the lease terms and is included in revenue in the statement of profit or loss and the costs of repairs and maintenance incurred on these properties for the year are recognised as an expense in profit or loss.

3. Expenses

	Notes	2023 $M	2022 $M
(a) Pass-through costs			
Transmission Use Of System		**258.3**	248.5
Climate Change Fund contributions		**57.2**	56.0
Total pass through costs		**315.5**	304.5
(b) Operating expenses			
Employee benefits*			
– Defined contribution superannuation		**49.1**	43.9
– Defined benefit superannuation		**4.1**	2.7
– Other employee benefits		**236.1**	214.7
Other costs of distribution of energy and other services		**286.6**	253.3
Debt write-offs and change in provision for expected credit losses		**1.6**	4.7
Total operating expenses		**577.5**	519.3
(c) Loss on disposal or write-off of non-financial assets			
Loss on disposal of property, plant and equipment		**43.8**	12.6
Gains/(losses) on modification of leases**		**(0.4)**	(0.3)
		43.4	12.3
(d) Depreciation, amortisation and impairment			
Depreciation of property, plant and equipment	7	**432.3**	374.2
Depreciation of right-of use assets	21	**4.6**	5.0
Plant and equipment depreciation capitalised***		**(17.6)**	(16.0)
Depreciation expense		**419.3**	363.2
Amortisation of intangible assets	8	**10.5**	23.3
Impairment losses****	7	**29.5**	27.5
Total depreciation, amortisation and impairment		**459.3**	414.0

* Employee benefits expense excludes $221.1M (2022: $187.7M) capitalised during the year as part of property, plant and equipment and intangible assets.

** The expense reflects gains and losses arising from amendment of lease terms and expected option periods.

*** Plant and equipment depreciation capitalised – The depreciation of heavy vehicles and the related plant and equipment used in the construction and maintenance of the electricity network is allocated to cost of construction and maintenance projects through a plant use allocation and where the project is capital in nature the depreciation is capitalised as part of the constructed network assets.

**** The expense reflects the impairment of water and public lighting assets.

Recognition and Measurement

(i) Cloud Computing Arrangements

Cloud computing arrangements are service contracts providing the Corporation with the right to access the cloud provider's application software over the contract period. A right to receive future access to the supplier's software does not give the customer control of the software and the power to obtain the future economic benefits flowing from the software itself and to restrict others' access to those benefits. Therefore, the Corporation does not recognise such software as an intangible asset.

Fees for use of application software and customisation costs are recognised as an operating expense over the term of the service contract. Costs incurred on configuration, data conversion and migration, testing and training are recognised as an operating expense as the service is recognised.

Costs incurred for the development of software code that enhances or modifies, or creates additional capability to, existing on-premise systems and meets the definition of and recognition criteria for an intangible asset are recognised as intangible software assets. Refer to Note 8.

The individual circumstances of the arrangement are considered with the primary test being whether the Corporation has control of the software or whether a controlled asset is created from an activity connected with the software. Consideration is given to whether the related costs are separately identifiable and whether the integration software would be migratable to an alternative cloud system.

(ii) Superannuation Expense – Defined Contribution Plans

Most employees are party to a defined contribution scheme under which the Corporation pays fixed contributions into separate superannuation entities and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution plans are recognised as an employee benefit expense in profit or loss in the periods during which services are rendered by employees.

(iii) Superannuation Expense – Defined Benefit Plans

A defined benefit plan is a post-employment benefit plan that pays benefits based on factors such as length of employment and salary history. Current service costs and net interest expense or income are recognised in profit or loss. Current service cost is the increase in the present value of the defined benefit obligation resulting from employee service in the current period. Net interest is calculated by applying the discount rate to the net defined benefit liability or asset.

(iv) Depreciation, Amortisation, and Impairment

Refer to Notes 7, 8 and 21 for recognition and measurement policies on depreciation, amortisation and impairment.

(e) Finance Costs

	2023 $M	2022 $M
Interest and finance charges paid or payable on loans	**225.6**	208.4
NSW Government competitive neutrality fee (Note 17(d))	**103.4**	97.9
Interest expense from lease liabilities (Note 21)	**1.5**	1.5
Unwinding of discount on provisions	**0.8**	0.5
Total finance costs	**331.3**	308.3

Recognition and Measurement

Finance costs are recognised as expenses in profit or loss in the period in which they are incurred:

Interest and finance costs paid and payable on loans include:

- Interest expenses calculated using the effective interest method as described in AASB 9, for example interest on overdrafts and short-term and long-term borrowings, including amounts paid or received on interest rate swaps, amortisation of discounts or premiums relating to borrowings and indexation adjustments on CPI indexed bonds.
- Amortisation of ancillary costs incurred in connection with the arrangement of borrowings.
- A government loan guarantee fee assessed by NSW Treasury.
- Discount expense applied to provisions and amortised assets.

The amount excludes finance costs relating to qualifying assets, in which case they are capitalised as part of the cost of those assets in accordance with AASB 123 Borrowing Costs. Qualifying assets are assets that take a substantial time to get ready for their intended use. The Corporation considers this to be 12 months or more.

Capitalisation of borrowing costs is undertaken where a direct relationship can be established between the borrowings and the relevant projects giving rise to qualifying assets. These are typically those projects where the expected total project expenditure is approximately $10M or greater. No borrowing costs were capitalised during the year (2022: $nil).

(f) Maintenance expenses (included in (b) above)

	2023 $M	2022 $M
Employee benefits expense (direct)	**69.4**	58.6
Contracted labour and other expenses	**409.5**	370.2
	478.9	428.8

4. Income Tax

	2023 $M	2022 $M
(a) Income tax recognised in profit or loss		
Current tax expense		
Current year	**1.6**	7.6
Adjustments for prior years	**0.8**	(0.3)
	2.4	7.3
Deferred tax expense/(credit)		
Origination and reversal of temporary differences	**(5.0)**	5.9
Over-provided in prior years	**(0.9)**	0.3
	(5.9)	6.2
Total income tax expense in profit or loss	**(3.5)**	13.5
Numerical reconciliation between tax expense and pre-tax net profit		
Profit before tax	**(11.6)**	44.7
Income tax at the statutory tax rate of 30% (2022: 30%)	**(3.5)**	13.4
Increase/(decrease) in income tax expense due to:		
Over provided in previous years	**(0.1)**	–
Non-deductible expenses	**0.1**	0.1
Income tax expense on pre-tax net profit	**(3.5)**	13.5
(b) Income tax recognised in other comprehensive income		
Items not to be reclassified subsequently to profit or loss:		
– Actuarial gains or losses on remeasurement of defined benefits superannuation	**(1.2)**	6.5
– Revaluation of system assets and land and buildings	**195.0**	315.0
– Revaluation reserve reversal	**(0.7)**	(1.8)
	193.1	319.7
Items to be reclassified subsequently to profit or loss:		
– Revaluation of hedge derivatives	**0.1**	0.1
Income tax charged/(credited) directly to other comprehensive income	**193.2**	319.8
(c) Recognised deferred tax assets and liabilities		
Deferred tax (assets) and liabilities are attributable to the following:		
Property, plant and equipment and intangible assets	**692.5**	502.1
Defined benefit superannuation benefits	**(1.9)**	(3.3)
Other liabilities and provisions	**(72.8)**	(73.1)
Other items	**(4.8)**	–
Net tax liabilities	**613.0**	425.7

Movement in temporary tax differences

	1 July 2022 $M	Recognised in profit or loss $M	Recognised in other comprehensive income $M	30 June 2023 $M
Property, plant and equipment and intangible assets	502.1	(3.9)	194.3	**692.5**
Defined benefit superannuation liabilities	(3.3)	2.6	(1.2)	**(1.9)**
Other liabilities and provisions	(73.1)	0.3	–	**(72.8)**
Other items	–	(4.8)	–	**(4.8)**
	425.7	(5.8)	193.1	**613.0**

	1 July 2021 $M	Recognised in profit or loss $M	Recognised in other comprehensive income $M	30 June 2022 $M
Property, plant and equipment and intangible assets	184.7	4.2	313.2	502.1
Defined benefit superannuation liabilities	(5.1)	(4.7)	6.5	(3.3)
Other provisions	(79.9)	6.8	–	(73.1)
Other items	(0.1)	–	0.1	–
	99.6	6.3	319.8	425.7

Recognition and Measurement

Essential Energy is exempt from federal income tax under the Income Tax Assessment Acts, however, the Corporation is subject to the National Tax Equivalent Regime which is based on the Income Tax Assessment Acts. Tax equivalents are payable to Revenue NSW.

Income tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in profit or loss except to the extent that it relates to items recognised directly in equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is provided using the statement of financial position liability method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the reporting date.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the asset can be utilised. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

5. Cash and Cash Equivalents

	2023 $M	2022 $M
Cash and bank balances	**2.5**	2.4

The Corporation's exposure to interest rate risk and a sensitivity analysis of financial assets and financial liabilities are disclosed in Note 14.

6. Trade and Other Receivables – Current

	2023 $M	2022 $M
Trade receivables	**55.8**	59.7
Less: allowance for expected credit losses	**(1.0)**	(3.4)
	54.8	56.3
Accrued revenue from unread meters	**173.9**	186.9
	228.7	243.2
Prepayments	**14.1**	13.0
Other receivables	**30.0**	20.2
Less: allowance for expected credit losses	**(2.6)**	(1.1)
	270.2	275.3
The movement in the allowance for expected credit losses is detailed below:		
Opening balance at 1 July	**4.5**	1.0
Provision for expected credit losses	**1.9**	4.7
Write-off of debts	**(2.8)**	(1.2)
Closing balance at 30 June	**3.6**	4.5

The Corporation's exposure to credit risks related to trade and other receivables is disclosed in Note 14.

Recognition and Measurement

Trade and other receivables are initially recognised at fair value and are subsequently measured at amortised cost less any allowance for expected credit losses and include an estimate of the value of unbilled revenue (refer Note 2).

A provision for expected credit losses is recognised in profit or loss and reflected in an allowance account against receivables. When a subsequent event causes the amount of the allowance for expected credit losses to decrease, the decrease in allowance for expected credit losses is reversed through profit or loss.

7. Property, Plant and Equipment

	Notes	Land and buildings $M	System assets $M	Plant and equipment $M	Total $M
Year ended 30 June 2023					
Gross carrying amount		**301.3**	**10,558.0**	**570.0**	**11,429.3**
Accumulated depreciation and impairment[1]		**–**	**(516.8)**	**(319.1)**	**(835.9)**
Net carrying amount		**301.3**	**10,041.2**	**250.9**	**10,593.4**
Net carrying amount at start of year		**234.7**	**9,274.4**	**218.2**	**9,727.3**
Purchases of assets		**14.0**	**664.5**	**55.8**	**734.3**
Re-categorisations		**42.7**	**(69.7)**	**25.6**	**(1.4)**
Disposals and write offs		**(0.7)**	**(45.6)**	**(1.7)**	**(48.0)**
Depreciation expense	**3(d)**	**(7.6)**	**(375.4)**	**(49.3)**	**(432.3)**
Revaluation		**18.2**	**622.5**	**2.3**	**643.0**
Impairment	**3(d)**	**–**	**(29.5)**	**–**	**(29.5)**
Net carrying amount at end of year		**301.3**	**10,041.2**	**250.9**	**10,593.4**
Year ended 30 June 2022					
Gross carrying amount		235.0	9,827.1	497.3	10,559.4
Accumulated depreciation and impairment		(0.3)	(552.7)	(279.1)	(832.1)
Net carrying amount		234.7	9,274.4	218.2	9,727.3
Net carrying amount at start of year		217.5	8,090.0	225.1	8,532.6
Purchases and re-categorisations of assets		0.4	552.0	37.0	589.4
Disposals and write offs		(0.2)	(30.2)	(1.4)	(31.8)
Depreciation expense	3(d)	(8.2)	(323.5)	(42.5)	(374.2)
Revaluation		25.2	1,013.6	–	1,038.8
Impairment	3(d)	–	(27.5)	–	(27.5)
Net carrying amount at end of year		234.7	9,274.4	218.2	9,727.3

	2023 $M	2022 $M
Assets under construction		
Expenditure on construction in progress at the end of the year	**488.0**	388.5
Historic cost of revalued assets		
The carrying amount of assets had they been carried under the cost model is:		
Land and buildings	**232.0**	179.4
System assets	**7,895.1**	7,721.4
Plant and equipment	**248.6**	218.2

Land and buildings include assets where a third party has an operating lease or licence to use or access a property, for example for radio towers or land surrounding a substation but not the exclusive use of the asset. These are generally incidental to Essential Energy's use of the asset. Assets under operating leases where the Corporation does not also have the use of the asset are immaterial.

1 Accumulated Depreciation on system assets and land and buildings was eliminated against gross carrying value on revaluation in accordance with NSW Treasury Policy TPP21-05. Valuation of Physical Non-Current Assets at Fair Value.

Recognition and Measurement

(i) Initial Recognition

Items of property, plant and equipment purchased or constructed are initially recognised at cost. Such costs include the cost of replacing part of the plant and equipment. Cost includes expenditure that is directly attributable to the acquisition and/or construction of the asset including costs of materials, services and direct labour, the initial estimate, where relevant, of the costs of dismantling and removing the items and restoring the site on which they are located and an allocated proportion of supporting overhead costs. Capitalised costs also include borrowing costs where appropriate. Non-system assets purchased below $1,000 (2022: $1,000) are expensed as acquired.

Management's judgement is required in the assessment of the types of costs that are directly attributable to the construction of the Corporation's property, plant and equipment. Satisfying the directly attributable criteria requires an assessment of those unavoidable costs that, if not incurred, would result in the property, plant and equipment not being constructed. Directly attributable overheads are allocated to the cost of construction of an asset based on direct cost of capital projects as a proportion of total direct project costs.

Property, plant and equipment transferred from customers, developers or Government agencies is initially measured at fair value at the date on which control is obtained.

(ii) Measurement after Initial Recognition

After initial recognition as an asset, items of property, plant and equipment are measured at fair value.

System Assets and Land and Buildings

System assets comprise physical assets which make up infrastructure used directly for the distribution of electricity, provision of public lighting, and water and sewerage infrastructure.

System assets and land and buildings are stated at fair value at the date of revaluation less any subsequent accumulated depreciation and impairment losses. The fair value of system assets and land and buildings is determined using an income approach.

The valuation methodology reflects a discounted cash flow methodology to value the Corporation, and a calculation to subtract the value of other business assets and liabilities to arrive at a value for the Corporation's system assets and land and buildings.

The income approach is based on a discounted cash flow model using the following methods and assumptions:

- Use of an estimate of likely future cash flows for five years to be derived based on financial forecasts
- The time value of money, represented by the current market risk-free rate and the price for bearing the uncertainty inherent in the asset, as encapsulated in the discount rate
- A multiple of the forecast regulated asset base (RAB) at the end of the forecast period used as a proxy for the terminal value. The terminal RAB multiple is determined with reference to market observable multiples.

The Corporation continues to assess the potential impacts of climate change and the transition towards a net zero economy. The Corporation has not amended the estimates and assumptions used to determine fair value as a result of potential climate change impacts.

System assets and land and buildings are comprehensively valued at least every three years. In other years an interim management valuation is performed at each reporting date to ensure the net carrying value of system assets and land and buildings does not differ materially from their fair value. An interim formal valuation is undertaken where there is an indication that the valuation may differ materially from the carrying value. The latest comprehensive valuation was completed as at 30 June 2022. Annually the finance department of the Corporation performs the valuation of system assets and land and buildings required for financial reporting purposes.

The distribution network, comprising system assets, land and buildings, and easements, as a whole is considered to be a 'single asset' for the purposes of valuation. This is because all components within the network must work together to reliably supply electricity. Further, due to the specialised nature of the Corporation's network, system assets, land and buildings and easements cannot be readily sold to third parties for different uses.

Plant and Equipment

Plant and equipment assets comprise non-specialised assets with short useful lives, including motor vehicles, tools, Information Technology hardware, communications equipment and furniture and fittings. These assets are deemed to be stated at fair value which is equivalent to their depreciated historical costs.

(iii) Revaluations

Revaluation increments are recognised in other comprehensive income and credited directly to the asset revaluation reserve, except where an increment reverses a revaluation decrement in respect of that asset class which was previously recognised as an expense in net profit or loss, the increment is recognised immediately in profit or loss. Revaluation decrements are recognised in profit or loss, except that, to the extent that a credit balance exists in the asset revaluation reserve in respect of the same asset, they are debited directly to the asset revaluation reserve. Accumulated depreciation as at the revaluation date is eliminated against the gross carrying amount of the asset and the net amount is restated to the revalued amount of the asset.

Gains and losses on disposal of revalued assets are included in profit or loss for the year. Any related revaluation increments in the asset revaluation reserve are transferred to Retained Earnings upon disposal.

(iv) Impairment of Property, Plant and Equipment and Intangible Assets

The Corporation assesses the carrying amounts of non-financial assets at the end of each reporting period by evaluating conditions that may indicate potential impairment of assets. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows which are largely independent of the cash inflows from other assets or groups of assets (cash-generating units or CGUs).

The recoverable amount of the Water CGU was estimated to be $nil as at 30 June 2023 (2022: $nil) as the business is not forecast to generate positive cashflows within the foreseeable future. Accordingly, no value is carried in the books of the Corporation in respect of the Water CGU assets. All assets acquired or constructed are fully impaired immediately after initial recognition. The impairment for the year was $4.1M (2022: $2.2M) which was recognised in profit or loss.

The recoverable amount of the Public Lighting CGU's system assets was estimated at $29.6M as at 30 June 2023 (30 June 2022: $21.5M) based on a value in use valuation and applying a discount rate of 5.5% (30 June 2022: 5.5%). An impairment charge of $25.4M (2022: $25.3M) has been recognised in profit or loss during the current period. The valuation processes are described in Note 15. The impairment charge was mainly due to the recognition of gifted and customer funded system assets the value of which is not recoverable through tariffs in future periods.

The Corporation has considered the potential impacts of climate change in relation to impairment assessments with no specific impacts identified. Most of the public lighting luminaires have now been upgraded to Light Emitting Diodes (LEDs).

(v) Depreciation

Depreciation is charged to profit or loss on a straight-line basis over the estimated useful lives of each item of property, plant and equipment. Land is not depreciated. Depreciation methods and useful lives are reviewed at each reporting date and adjusted prospectively, if appropriate.

The estimated useful lives are as follows:

Buildings	40 years
Leasehold improvements	Lesser of term of lease or useful life[2]
System assets	10 – 55 years[3]
Plant and equipment	3 – 20 years

The Corporation has considered the potential impacts of climate change in determining the estimated useful lives of assets. At this stage the Corporation has not changed the useful lives of its assets but will continue to review this assumption in future periods.

2 The leases greater than 5 years are mainly leases with no fixed term contract and are expected to continue for an indefinite period.
3 Extended by up to 20 years on refurbishment where the asset has less than 20 years of useful life remaining, limited to a maximum total life of 100 years.

8. Intangible Assets

	Notes	Easements $M	Computer software $M	Other $M	Total $M
Year ended 30 June 2023					
Gross carrying amount		**100.3**	**103.7**	**61.6**	**265.6**
Accumulated amortisation		**–**	**(70.0)**	**(32.0)**	**(102.0)**
Net carrying amount		**100.3**	**33.7**	**29.6**	**163.6**
Net carrying amount at start of year		**91.6**	**29.7**	**34.7**	**156.0**
Acquisitions		**–**	**8.1**	**1.6**	**9.7**
Re-categorisations		**1.7**	**0.4**	**(0.7)**	**1.4**
Amortisation	**3(d)**	**–**	**(4.5)**	**(6.0)**	**(10.5)**
Revaluation		**7.0**	**–**	**–**	**7.0**
Net carrying amount at end of year		**100.3**	**33.7**	**29.6**	**163.6**
Year ended 30 June 2022					
Gross carrying amount		91.6	94.7	61.3	247.6
Accumulated amortisation		–	(65.0)	(26.6)	(91.6)
Net carrying amount		91.6	29.7	34.7	156.0
Net carrying amount at start of year		80.5	45.2	36.3	162.0
Acquisitions and re-categorisations		–	1.8	4.4	6.2
Amortisation	3(d)	–	(17.3)	(6.0)	(23.3)
Revaluation		11.2	–	–	11.2
Retirements		(0.1)	–	–	(0.1)
Net carrying amount at end of year		91.6	29.7	34.7	156.0

	2023 $M	2022 $M
Intangible Assets under Construction		
Expenditure on development or purchase of intangible assets in progress at the end of the year:	**33.5**	21.1

Recognition and Measurement

Intangible assets that are acquired externally or internally generated by the Corporation are stated at cost less accumulated amortisation and impairment losses.

An intangible asset arising from development (or from the development phase of an internal project) is recognised if the Corporation can demonstrate all of the following:

- The technical feasibility of completing the intangible asset so that it will be available for use or sale
- Its intention to complete the intangible asset and use or sell it
- Its ability to use or sell the intangible asset
- How the intangible asset will generate probable future economic benefits. Among other things, the Corporation can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset
- The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset
- Its ability to measure reliably the expenditure attributable to the intangible asset during its development.

Intangible assets must be controlled by the Corporation for the expenditure to be recognised as an asset. In the absence of control, such costs need to be expensed.

Subsequent expenditure on capitalised intangible assets is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates.

All other expenditure is expensed as incurred.

Refer to Note 3 for the accounting policy for cloud computing costs.

Easements, which are an interest in land allowing access to network assets, are not amortised as they are granted for an unlimited time. Easements are valued annually together with system assets and land and buildings as described in Note 7(ii).

Amortisation is charged to profit or loss on a straight-line basis over the estimated useful lives of intangible assets unless such lives are indefinite. Intangible assets with an indefinite useful life are tested for impairment at each reporting date. Amortisation methods and useful lives are reviewed at each reporting date and adjusted prospectively, if appropriate.

The estimated useful lives in the current and comparative periods are as follows:

Easements	Indefinite
Computer software	4 to 10 years
Other intangibles	10 years

9. Trade and Other Payables

	2023 $M	2022 $M
Trade payables	**41.5**	45.6
Interest payable	**148.7**	142.6
Accruals	**71.3**	66.6
Payroll related payables	**27.7**	25.7
Other payables	**8.6**	9.2
	297.8	289.7

Details regarding liquidity risk including a maturity analysis of the above payables are disclosed in Note 14.

Recognition and Measurement

Trade and other payables represent liabilities for goods and services provided to the Corporation prior to the end of the financial year and there is an obligation to make future payment. The amounts are unsecured and are usually paid within 30 days of recognition.

After initial recognition of these liabilities at fair value, they are measured at amortised cost using the effective interest rate method. For short-term payables with no stated interest rate this measurement is equivalent to the original invoice amount.

10. Contract Liabilities

	2023 $M	2022 $M
Contract liabilities		
Current	**12.4**	2.9
Non-current	**28.9**	23.3
	41.3	26.2

Contract Liabilities

A contract liability is the obligation to transfer goods or services to a customer for which the Corporation has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Corporation transfers goods or services to the customer, a contract liability is recognised when the payment is made, or the payment is due (whichever is earlier). Contract liabilities are recognised as revenue when the Corporation satisfies the performance obligation under the contract.

Contract liabilities include amounts invoiced to customers for the construction of assets where the Corporation has yet to perform all contract obligations. Also included are contributions by public lighting customers up to 30 June 2009 intended to fund the replacement of assets at the end of their life $1.9M (2022: $2.9M). For public lighting the revenue is recognised once the Corporation has replaced the asset.

11. Interest Bearing Liabilities

	Notes	2023 $M	2022 $M
Current liabilities			
TCorp borrowings		**702.2**	580.0
Lease liability	21	**6.3**	5.9
		708.5	585.9
Non-current liabilities			
TCorp borrowings		**5,603.0**	5,491.5
Lease liability	21	**35.3**	37.9
Non-current portion of borrowings		**5,638.3**	5,529.4

	2023 $M	2022 $M
Changes in liabilities arising from financing activities		
Total interest-bearing liabilities at beginning of year	**6,115.3**	6,030.8
Net cash flows from proceeds from and repayments of borrowings and lease liabilities	**208.1**	32.3
Capitalisation of indexed bonds indexation	**33.1**	13.6
Movement and settlement of deferred interest	**(9.5)**	38.4
Movement in forward rate contracts	**(0.2)**	0.2
Total interest-bearing liabilities at end of year	**6,346.8**	6,115.3

Borrowings are unsecured and repayable in full on various maturity dates. For more information about the Corporation's exposure to interest rate risk and liquidity risk see Note 14.

Recognition and Measurement

Interest bearing liabilities are initially recognised at fair value, net of transaction costs incurred. After initial recognition, borrowings are subsequently measured at amortised cost using the effective interest method. This includes capital indexed bonds where the carrying amount is restated at each reporting date by way of an indexation adjustment based on the Consumer Price Index (CPI) in Australia.

Amortised cost is calculated by accounting for any discount or premium on settlement. The difference between the face value and the capital value of these debt securities is amortised over the life of the specific instrument. Interest associated with these instruments is brought to account on an accrual basis. Indexation adjustments on CPI indexed bonds are also recognised as part of finance costs in profit or loss.

Gains and losses are recognised in profit or loss when the liabilities are de-recognised as well as through the amortisation process.

Borrowings shown as a current liability are nominally due for repayment within 12 months. However due to the availability of roll-over facilities supported by the NSW Treasury approved core debt limit and the liquidity of the underlying debt instruments, the Corporation may not necessarily need to repay these borrowings within 12 months.

12. Provisions

	Employee benefits $M	Environmental and asset remediation $M	Workers' compensation $M	Other $M	Total $M
At 1 July 2022	200.5	29.2	4.4	1.1	235.2
Additional provisions	50.8	0.8	3.2	2.8	57.6
Amounts used	(44.0)	(5.0)	(1.7)	(1.1)	(51.8)
Amounts reversed	(4.5)	(0.5)	(0.8)	(0.3)	(6.1)
Unwinding of discount	–	0.8	–	–	0.8
At 30 June 2023	202.8	25.3	5.1	2.5	235.7
30 June 2023					
Current	193.3	7.0	4.2	2.5	207.0
Non-current	9.5	18.3	0.9	–	28.7
30 June 2022					
Current	191.6	5.6	3.9	1.1	202.2
Non-current	8.9	23.6	0.5	–	33.0

Recognition and Measurement

A provision is recognised in the Statement of Financial Position when the Corporation has a present legal or constructive obligation because of a past event, it is probable that an outflow of economic benefits will be required to settle the obligation and the obligation can be reliably measured. If the effect is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. The following reflects specific policies and other information regarding the key provisions:

(i) Dividends

Provision is made for any dividend and other payments determined by the directors and approved by the shareholding ministers on or before the end of the financial year but not distributed at year end. The dividend has regard to the annual performance agreement (Statement of Corporate Intent) with NSW Treasury. No dividend was provided at 30 June 2023 (2022: $nil).

(ii) Employee Benefits

All liabilities for employee benefits that are expected to be paid for services provided up to the reporting date by employees represent present obligations and are fully provided for in the financial statements.

Liabilities for employee benefits for wages, salaries, annual leave, preserved sick leave and long service leave that are expected to be wholly settled within 12 months of the reporting date are calculated at undiscounted amounts based on remuneration wage and salary rates that the Corporation expects to pay as at reporting date including related on-costs, such as workers compensation, insurance and payroll tax.

The liability for long service leave is recognised in the provision for employee benefits and measured as the present value of expected future payments using the projected unit credit method (an actuarial technique). Consideration is given to expected future wage and salary levels, experience of employees' departures and periods of service.

Expected future payments (over 12 months) are discounted using market yields on high quality corporate bonds (HQCB) as at reporting date with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

Actuarial assessment of preserved sick leave, annual leave and long service leave was calculated in May 2022 by Cumpston Sarjeant Pty Ltd. This was used as a basis for calculating the current year's provision by applying a methodology supplied by the actuary. Long service leave and the component of annual leave not expected to be wholly settled within 12 months have been discounted using HQCB yields as at reporting date. Employee benefits are recorded in the Statement of Financial Position as current liabilities where the Corporation has no unconditional right to defer settlement. Amounts provided for in relation to defined benefit superannuation obligations are based on an actuarial assessment. All other employee benefit amounts expected to be settled within 12 months have been measured at the amounts expected to be paid when the liabilities are settled.

The current provision for employee benefits includes accrued annual leave, preserved sick leave and long service leave. For long service leave it covers all unconditional entitlements where employees have completed the required period of service and those where employees are entitled to pro-rata payments in certain circumstances. The entire amount of the provision for accrued annual leave, vesting sick leave and unconditional entitlements to long service leave of $193.3M (2022: $191.6M) is presented as current, since the Corporation does not have an unconditional right to defer settlement for any of these obligations. However, based on experience, the Corporation does not expect all employees to take the full amount of accrued leave or require payment within the next 12 months. The following amounts, included in the current provision for employee benefits, reflect leave that is not expected to be taken or paid within the next 12 months.

	2023 $M	2022 $M
Current leave obligations are expected to be settled after 12 months	**147.2**	147.4

The non-current provision for employee benefits includes $0.4M (2022: $0.5M) relating to the defined benefit superannuation liability.

(iii) Environmental and Asset Rectification

This provision category includes three main items:

- A provision to remediate assets which are no longer compliant with current regulations of $21.7M (2022: $24.3M). The provision is based on one of several options which assumes a completion date of 2029 with a discount rate of 3.95% applied (2022: 3.5%).
- Provision for lease make good costs expected to be incurred on termination of existing leases of $2.5M (2022: $2.5M).
- Provisions for various environmental rectification works which are expected to be settled within the next two years of $1.1M (2022: $2.4M).

(iv) Workers Compensation

The Corporation is on a Loss Prevention and Recovery Scheme for its workers compensation insurance. The scheme structure involves a premium calculation which is finalised over a four-year period finishing in 2026 for the 2023 financial year cover period. A discount rate of 5.2% (2022: 3.6% to 4.5%) has been applied.

(v) Other

Other provisions include legal claims relating to property damage, personal injury and workplace incidents. The amount of each obligation is the best estimate of the expenditure required to settle the obligation based on current legal requirements.

13. Deferred Revenue

	2023 $M	2022 $M
Deferred government grants	–	2.0
Other deferred revenue	–	0.1
	–	2.1

14. Financial Risk Management

(a) Financial Risk Management Objectives and Policies

Financial instruments comprise cash, trade debtors, trade creditors, short-term deposits, borrowings and derivatives. The main purpose of borrowings and short-term deposits is to raise finance or invest surplus cash for the Corporation's operations while derivatives are used to manage exposure to price movements.

The Corporation's treasury function, leadership team and Board manage the Corporation's exposure to key financial risks including credit risk, currency risk, interest rate risk, liquidity risk and commodity price risk, in accordance with the Board's financial risk management policies. The Board sets policies for managing each of the key financial risks.

Derivative financial instruments can be used to hedge exposure to fluctuations in foreign exchange rates, commodity prices and interest rates.

(b) Credit Risk

Credit risk is the risk of financial loss arising if counterparties failed to meet their financial obligations to the Corporation under a financial instrument or customer contract.

The exposure to credit risk on trade and other receivables, and accrued income from unread meters of the Corporation that have been recognised in the Statement of Financial Position, is generally the carrying amount, net of any provision for expected credit losses.

The Corporation manages the credit risk of trade receivables through requiring customers to pay in accordance with agreed payment terms. The payment terms are generally 15 to 30 days. The credit risk related to distribution network customers (retailers) is the risk of a retailer defaulting on their obligations. The Corporation operates in accordance with the National Energy Rules under the National Energy Law which provides credit support guidelines. Under these guidelines the Corporation can obtain credit support from a retailer in certain circumstances where the retailer defaults. In the event of significant retailer failure, an application to recoup such losses under general pass-through provisions available through the AER would be considered. As at 30 June 2023 the Corporation had trade receivables of $52.7M (2022: $54.3M) from retailers. Three retailers represented 62.5% (2022: 60.7%) of these trade receivables.

The Corporation's credit risk on other assets is minimised as it transacts predominantly with other government owned entities. Where the counterparty is a non-government owned corporation its credit worthiness is established in accordance with Essential Energy's risk management policies which includes the use of external credit ratings which are used to derive risk limits as approved by the Board.

Set out below is information about the credit risk exposure of the Corporation's trade and other receivables using a provision matrix:

	2023		2022	
Days past due	Carrying Amount $M	Expected Credit Loss $M	Carrying Amount $M	Expected Credit Loss $M
Current	**73.6**	**–**	69.7	–
Less than 30 days	**4.1**	**0.9**	3.8	3.1
30 to 90 days	**3.0**	**0.3**	2.8	0.2
91 to 180 days	**1.4**	**0.3**	1.0	0.3
Over 180 days	**3.7**	**2.1**	2.6	0.9
Total	**85.8**	**3.6**	79.9	4.5

An impairment review is performed at each reporting date considering the days past due for the groupings of customer segments with similar loss patterns, for example, retailers and sundry debtors. The review considers the probability of collection, reasonable and supportable information that is available at the reporting date. Most receivables relate to regulated retailers with payments required within 30 days of billing, with defaults being unpredictable at the time of billing, therefore expected credit losses for retailers are assessed based on observable default events. For non-retail receivables the ageing of the debtors is the key indicator of credit risk and the Corporation's historical credit loss experience is used to determine the expected credit loss. Normal fluctuations in economic conditions are not viewed as a factor that has an observable impact on the expected losses, however abnormal changes in economic conditions, such as the economic implications arising from the current COVID-19 pandemic and increases in electricity prices are considered. As such the Corporation's historical credit loss experience may not be representative of customers' actual default in the future.

(c) Currency Risk

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.

The Corporation considers using forward exchange contracts to hedge its foreign currency risk for all committed foreign exchange exposures that exceed A$500,000 in value. At the reporting date the Corporation had no foreign currency denominated hedges in place (2022: $0.7M) and A$nil (2022: A$0.1M) within a US dollar denominated bank account.

There are no other significant assets or liabilities denominated in currencies other than Australian dollars.

(d) Interest Rate Risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.

The Corporation adopts a policy of ensuring that its debt portfolio is managed within a Board approved risk management framework. Interest rate risk is managed through a combination of fixed rate long-term duration debt, inflation linked securities, floating rate debt and interest rate derivative instruments.

The interest rate profile for the Corporation's interest-bearing financial instruments at the reporting date was:

Carrying amount	2023 $M	2022 $M
Fixed rate		
Financial liabilities	**(5,766.3)**	(5,524.0)
Floating rate		
Financial assets	**2.5**	2.4
Financial liabilities	**(8.5)**	(2.3)
	(6.0)	0.1
Inflation indexed		
Financial liabilities	**(572.0)**	(589.0)

The Corporation does not account for any fixed rate financial assets and liabilities at fair value through profit or loss. The Corporation had $2.5M (2022: $2.4M) of floating rate financial assets at year end and it is estimated that a change in interest rates by one percentage point at reporting date in relation to these assets would have an immaterial impact on the Corporation's profit before tax.

In addition, the Corporation had $8.5M (2022: $2.3M) floating rate financial liabilities at year end, and it is estimated that a change in interest rates by one percentage point in relation to these liabilities at the reporting date would have negligible impact on profit before tax. Changes in inflation also affect the Corporation's finance costs due to its holdings of indexed financial liabilities. A change in inflation rates of half of one percent is estimated to impact the annual profit before tax by $2.9M (2022: $2.9M).

(e) Capital Risk Management

The Corporation's objectives are to establish and maintain an efficient capital structure based on a target credit rating. The target capital structure to achieve the target credit rating over the medium term will be negotiated between Shareholders and the Corporation as part of the Statement of Corporate Intent process.

The Corporation monitors debt levels using the gearing ratio. The gearing ratio is calculated as net debt divided by total capital as shown below.

	2023 $M	2022 $M
Total borrowings	**6,346.8**	6,115.3
Less: cash at bank	**2.5**	2.4
Net debt	**6,344.3**	6,112.9
Total equity	**3,596.3**	3,151.2
Total capital	**9,940.6**	9,264.1
Gearing ratio	**63.8%**	66.0%

(f) Liquidity Risk

Liquidity risk is the risk of difficulty in ensuring the availability of sufficient funds to meet obligations associated with financial liabilities that are settled by delivering cash or another financial asset. The Corporation's liquidity risks are managed by Essential Energy's treasury function considering cashflow forecasts against the availability of readily accessible standby facilities and other funding arrangements.

As at 30 June 2023 the Corporation had an approved core debt borrowing limit of $7,110.0M (2022: $7,110.0M) of which $813.2M was not utilised as at 30 June 2023 (2022: $1,041.2M). The Corporation also has an approved NSW Treasury Corporation (TCorp) Come and Go Facility limit of $250.0M (2022: $250.0M) and approval to obtain a commercial bank overdraft facility limit of up to $15.0M (2022: $15.0M) to fund working capital. At 30 June 2023 and 30 June 2022 no facility was in place, however, an offset banking arrangement exists with NSW Treasury. Planned future capital expenditure will be funded through TCorp borrowings. Future committed expenditure is disclosed in Note 20.

While current liabilities are greater than current assets at 30 June 2023, the Corporation continues to trade as a going concern. The TCorp Come and Go Facility had $241.5M (2022: $247.7M) not utilised at 30 June 2023. The core debt and Come and Go Facility borrowing limits have no expiry date.

The Corporation's funding requirement and strategy is reviewed annually and monitored on an ongoing basis. There were no defaults or breaches on any borrowings payable and no assets have been pledged as collateral. The Corporation maintains a balance between continuity of funding and flexibility using bank overdrafts and debt. The Corporation manages debt using a portfolio approach.

The contractual maturity of the Corporation's fixed and floating rate financial liabilities, including lease liabilities, is shown in the following table.

	Carrying amount $M	Contractual cash flows Total $M	1 year or less $M	1 – 5 years $M	More than 5 years $M
30 June 2023					
Non-derivative financial liabilities					
Fixed rate borrowings	**5,766.3**	**6,711.0**	**845.8**	**2,463.6**	**3,401.6**
Floating rate borrowings	**8.5**	**8.5**	**8.5**	**–**	**–**
Inflation indexed borrowings	**572.0**	**701.9**	**17.6**	**493.6**	**190.7**
Trade and other payables (excluding statutory payables)	**278.3**	**278.3**	**278.3**	**–**	**–**
	6,625.1	**7,699.7**	**1,150.2**	**2,957.2**	**3,592.3**

	Carrying amount $M	Contractual cash flows Total $M	1 year or less $M	1 – 5 years $M	More than 5 years $M
30 June 2022					
Non-derivative financial liabilities					
Fixed rate borrowings	5,524.0	6,310.9	695.6	2,465.6	3,149.7
Floating rate borrowings	2.3	2.3	2.3	–	–
Inflation indexed borrowings	589.0	702.7	66.5	478.1	158.1
Trade and other payables (excluding statutory payables)	272.3	272.3	272.3	–	–
	6,387.6	7,288.2	1,036.7	2,943.7	3,307.8

The amounts disclosed above for borrowings are the contractual undiscounted cash flows. Other than floating rate borrowings and inflation indexed borrowings which will change due to changes in market rates and CPI inflation rates these disclosed contractually committed cash flows will not differ from the timing and the amounts expected to be incurred for these liabilities.

(g) Derivative Financial instruments and Hedge Accounting

Initial Recognition and Subsequent Measurement

The Corporation may use derivative financial instruments, such as forward currency contracts and forward interest rate contracts, to hedge its foreign currency risks and interest rate risks, respectively. Such derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently re-measured to their fair value at the end of each reporting period. Refer to note 14(c) for details of foreign currency hedges in place.

Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

For the purpose of hedge accounting, hedges are classified as:

- Fair value hedges when hedging the exposure to changes in the fair value of a recognised asset or liability or an unrecognised firm commitment.
- Cash flow hedges when hedging the exposure to variability in cash flows that is either attributable to a particular risk associated with a recognised asset or liability or a highly probable forecast transaction or the foreign currency risk in an unrecognised firm commitment.

At the inception of a hedge relationship, the Corporation formally designates and documents the hedge relationship to which the Corporation wishes to apply hedge accounting and the risk management objective and strategy for undertaking the hedge. The documentation includes identification of the hedging instrument, the hedged item or transaction, the nature of the risk being hedged and how the Corporation will assess the effectiveness of changes in the hedging instrument's fair value in offsetting the exposure to changes in the hedged item's fair value or cash flows attributable to the hedged risk. Such hedges are assessed on an ongoing basis to determine that they have been highly effective throughout the financial reporting periods for which they were designated.

Hedges that meet the criteria for hedge accounting are accounted for as described below:

Fair Value Hedges

Changes in fair value of derivatives that are designated and qualify as fair value hedges are recognised in profit or loss immediately, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk. The change in the fair value of the hedging instrument and the change in the hedged item attributable to the hedged risk are recognised in profit or loss in the line item relating to the hedged item.

Hedge accounting is discontinued when the Corporation revokes the hedging relationship, when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortised to profit or loss from that date.

Cash Flow Hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income and accumulated under the heading 'hedge revaluation reserve' in equity. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss.

Amounts previously recognised in other comprehensive income and accumulated in equity are reclassified to profit or loss in the period when the hedged item affects profit or loss, in the same line as the recognised hedged item. However, when the hedged forecast transaction results in the recognition of a non-financial asset or non-financial liability, the gains and losses previously recognised in other comprehensive income and accumulated in equity are transferred from equity and included in the initial measurement of the cost of the non-financial assets or non-financial liability.

Hedge accounting is discontinued when the Corporation revokes the hedging relationship, when the hedging instrument expires or is sold, terminated or exercised, or when it no longer qualifies for hedge accounting. At that time any gain or loss recognised in other comprehensive income and accumulated in equity remains in equity and is transferred to profit or loss when the forecast transaction occurs. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognised immediately in profit or loss.

(h) Derecognition of Financial Instruments

The Corporation derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Corporation retains substantially all the risks and rewards of ownership of a transferred financial asset, the Corporation continues to recognise the financial asset and the associated liability.

The Corporation derecognises a financial liability when, and only when, its obligation specified in the contract is discharged, cancelled or expired.

15. Fair Value Measurements

This note provides information about how the Corporation determines fair value of all assets and liabilities for which fair value is measured or disclosed in the financial statements.

The Corporation measures items of property, plant and equipment and intangible assets at fair value at reporting date. Also, fair values of financial instruments measured at amortised cost are disclosed.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- In the principal market for the asset or liability, or
- In the absence of a principal market, in the most advantageous market for the asset or liability.

The principal or the most advantageous market must be accessible by the Corporation.

The fair value of an asset or liability is measured using assumptions that market participants would use when pricing the asset or liability, if market participants act in their economic best interest.

A fair value measurement of a non-financial asset considers a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Corporation uses valuation techniques that are appropriate in the circumstances and for which sufficient data is available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1: Quoted (unadjusted) market prices in active markets for identical assets or liabilities
- Level 2: Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable
- Level 3: Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable

For assets and liabilities that are recognised in the financial statements at fair value on a recurring basis, the Corporation determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

(a) Recognised Fair Value Measurements

The Corporation measures and recognises the following assets and liabilities at fair value on a recurring basis:

- System assets (including related communications equipment)
- Land and buildings
- Easements

The fair values of other financial assets and financial liabilities are determined in accordance with generally accepted pricing models based on discounted cash flow analysis using maximum observable market input data which include prices from observable current market transactions and dealer quotes for similar instruments.

System assets, land and buildings and easements are valued using techniques described in Note 7. All resulting fair value estimates for system assets and land and buildings are included in Level 3.

(b) Fair Value Measurements using Significant Unobservable Inputs (Level 3)

(i) Transfers Between Levels 2 and 3 and Changes in Valuation Techniques

There were no transfers between Levels 2 and 3 and no changes in valuation techniques during the current and prior year. The movements and balances for Level 3 items, being land and buildings, system assets and easements, are disclosed in Note 7 and Note 8.

(ii) Valuation Processes

Annually the Finance department of the Corporation performs the valuation of system assets and land and buildings required for financial reporting purposes. A comprehensive valuation was performed as at 30 June 2022, in which the Corporation engaged external, independent and qualified valuers to review the valuation prepared by management. A comprehensive valuation is performed and reviewed at least every three years. An interim formal valuation is undertaken where there is an indication that the valuation may materially differ from the carrying value.

The main Level 3 inputs used by the Corporation for the 30 June 2023 valuation were derived and evaluated as follows:

- A discounted cash flow model, using five years of cashflows, was used to perform a value in use calculation using inputs such as future cash flows, including revenue, operating expenditure and capital expenditure, inflation rates and discount rates to determine fair value. A terminal value based on RAB multiple was also used. There is uncertainty in forecasting future cashflows used for the valuation.
- The cash flows were discounted using a discount rate of 5.5% (2022: 5.5%) which is based upon several inputs, primarily the risk-free rate, market risk premium, debt to equity ratio and debt risk premium. The risk-free rate is observable data based on government bond rates, the market risk premium is determined from analysis of comparable listed corporations and the debt risk premium data is obtained from observable data of corporate bond yields and spreads and is adjusted as required for use in the model. There is greater uncertainty on the discount rate to be applied due to the significant volatility in risk-free rates, market equity prices and debt risk premiums that resulted from inflationary pressures experienced in 2023 and expected in future years.
- The terminal RAB multiple is determined with reference to market observable multiples.

(iii) Valuation Inputs and Relationships to Fair Value

The following table summarises the quantitative information about the significant unobservable inputs used in Level 3 fair value measurements of system assets, land and buildings and easements which had a fair value of $10,442.8M.

Unobservable Inputs	Range of Inputs (probability weighted average)	Relationship of Unobservable Inputs to Fair Value
Discount rate	+/-50 basis points	The higher the discount rate, the lower the fair value. A 50 basis point movement in the discount rate results in a $284.9M change in the fair value.
Consumer Price Index (CPI)	+/-50 basis points	The higher the CPI rate, the higher the fair value. A 50 basis point movement in the CPI rate results in a $209.7M change in the fair value.
Five-year forecast revenue	+/-10%	The higher the revenue the higher the fair value. A 10% movement in the revenue results in a $494.0M change in the fair value.
Five-year forecast operating expenditure	+/-10%	The higher the operating expenditure the lower the fair value. A 10% movement in the operating expenditure results in a $182.0M change in the fair value.
Five-year forecast capital expenditure	+/-10%	The higher the capital expenditure the lower the fair value. A 10% movement in the capital expenditure results in an $18.8M change in the fair value.
Forecast terminal RAB multiple	+/-0.05	The higher the terminal RAB multiple, the higher the fair value. A 0.05 movement in terminal RAB multiple results in a $464.7M change in fair value.

(c) Disclosed Fair Values

The Corporation also has financial assets and liabilities which are not measured at fair value, but for which fair values are disclosed.

The carrying amounts and fair values of financial assets and liabilities are materially the same other than interest bearing liabilities which are shown below:

	Note	2023 Carrying Amount $M	2023 Fair Value $M	2022 Carrying Amount $M	2022 Fair Value $M
Financial liabilities carried at amortised cost					
Interest bearing liabilities	11	**6,346.8**	**5,985.9**	6,115.3	5,858.6

Fair value of borrowings is calculated based on discounted expected future principal and interest cash flows at the current market interest rates that are available to the Corporation for similar financial instruments. The fair value of current borrowings approximates the carrying amount, as the impact of discounting is not significant (Level 2).

The carrying amounts of trade receivables and payables are assumed to approximate their fair values due to their short-term nature.

(d) Interest Rates used for Determining Fair Value

The Corporation uses the NSW Treasury Corporation (TCorp) yield curve as at 30 June 2023 to discount financial instruments. The interest rates used are in the following ranges:

	2023	2022
Borrowings	**4.2%–9.8%**	1.0%–4.4%

(e) Other Non-financial Assets

The carrying amounts of non-financial assets, other than inventories, derivatives and deferred tax assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable amount is estimated.

For assets that have an indefinite useful life and intangible assets that are not yet available for use, the recoverable amount is estimated annually irrespective of any indication of impairment. The recoverable amount of an asset or cash generating unit (CGU) is the greater of their fair value less costs to sell and value in use. Refer to Note 7 for the method of calculation of the recoverable amount. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the CGU to which the asset belongs.

An impairment loss is recognised whenever the carrying amount of an asset or its CGU exceeds its recoverable amount. Impairment losses are recognised in profit or loss, unless an asset has previously been revalued, in which case the impairment loss is recognised as a reversal to the extent of that previous revaluation with any excess recognised through profit or loss.

Impairment losses recognised in respect of a CGU are applied to the carrying amount of the system assets and land and buildings and indefinite life intangible assets of the CGU on a pro rata basis.

An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation and amortisation, if no impairment loss has been recognised for the asset in prior years.

16. Key Management Personnel Disclosure

Key management personnel comprise members of the Board and the Corporation's leadership management team. The shareholding ministers, the NSW Treasurer and the Minister for Finance and Natural Resources, and the portfolio minister, Minister for Energy, Climate Change, Environment and Heritage are also considered to be key management personnel.

Key Management Personnel Remunerations

In addition to their salaries, the Corporation also provides post-employment benefits to directors and executive officers. Post-employment benefits for directors relates to compulsory superannuation contributions.

The shareholding ministers and the portfolio minister receive no remuneration from, or on behalf of, the Corporation for their services to the Corporation.

The key management personnel compensation included in employee benefits expense (Note 3(b)) is as follows:

	2023 $M	2022 $M
Short-term employee benefits	**5.7**	5.0
Long-term benefits	**0.3**	–
Post-employment benefits	**0.1**	0.4
Termination benefits	**0.4**	0.4
	6.5	5.8

17. Related Party Transactions

(a) State Owned Parties

The Corporation is a NSW Government owned corporation, with shares held by the shareholding ministers on behalf of the State of NSW. All State of NSW controlled entities, and entities in which the State of NSW has significant influence over, are considered to be related parties of the Corporation.

(b) Directors and the Corporation's Leadership Management Team

Some directors of Essential Energy are also directors of other companies or have an interest in other companies or entities that may have undertaken transactions with Essential Energy during the year. A Register of Directors' interests is maintained by the Company Secretary and updated as required during the year. In particular, in accordance with the Board Charter and the Corporation's Code of Conduct, directors have declared any potential conflicts of interest in matters discussed at the meetings. The members of the leadership management team are also required to declare any interests including related party transactions. All transactions with directors and the leadership management team and their related parties that occurred during the current year were insignificant and were under normal commercial terms.

(c) NSW Premier and NSW Cabinet Ministers

The NSW Premier and the NSW Cabinet Ministers, as well as any companies that they have control or significant influence over, and their close family members, are considered to be related parties of the Corporation. Any identified material transactions between the Corporation and these related parties are disclosed. Enquiries are made of the Premier and Cabinet Ministers by NSW Treasury for this purpose.

(d) Transactions with Related Parties

The following related party transactions occurred with State-owned entities or entities over which the State had significant influence:

NSW Treasury

NSW Treasury provides a NSW Government guarantee on the borrowings of the Corporation allowing the Corporation to borrow at lower interest rates. NSW Treasury levies a competitive neutrality fee at a fixed rate on the borrowings for which it has provided the guarantee. This is paid annually in September. The fee relating to the current year was $103.4M (2022: $97.9M). NSW Treasury also administers the Climate Change Fund. The Corporation is required to contribute a gazetted annual amount to NSW Treasury for the Climate Change Fund. An expense of $57.2M was recognised for the current year (2022: $56.0M) for the Climate Change Fund contribution, with $nil owing at 30 June 2023 (2022: $nil).

NSW Treasury Corporation (TCorp)

TCorp is a wholly owned entity of the State of NSW and is the central financing agency for the NSW public sector. TCorp provides debt and investments and provides other financial services to the NSW public sector. TCorp has also provided guarantees relating to workers compensation insurance and prudential requirements for the Australian Energy Market Operator (refer Note 19). Details of borrowings are disclosed in Note 11, interest costs on these borrowings were $225.6M (2022: $208.4M) of which $45.3M (2022: $44.6M) was owing at year end. Borrowing facilities provided by TCorp are disclosed in Note 14.

Restart NSW Fund

Revenue grants from the NSW Government which operates the Restart NSW fund of $26.5M (FY22: $24.6M) have been recognised with $2.0M owing by NSW Government at 30 June 2023 (2022: $0.5M). The grant is for the bulk water supply charge levied by Water NSW associated with the water pipeline from Wentworth to Broken Hill which is not recovered through water tariffs.

Water NSW

Water NSW, a NSW State Owned Corporation, operates and maintains a pipeline originating in Wentworth supplying water to Broken Hill. Since completion in April 2019 Water NSW has charged the Corporation for the bulk water supplied to Broken Hill through the pipeline. A bulk water supply expense of $26.0M was recognised in 2023 (2022: $25.6M) of which $2.0M (2022: $2.2M) remained owing to Water NSW at 30 June 2023.

Other NSW Government-Related Entities

The Corporation has transactions and balances with other NSW Government-related entities, as both a supplier and purchaser. These include supply of power and water services, audit services, state taxes, licence fees, levies, rates, grants for capital and other works, and lease rental income and expenses. Other than grants, these transactions and their settlement are on terms and conditions consistent with normal commercial terms and conditions.

Receivables and payables exist at reporting date in respect of some of the above related party transactions. No impairment provision in respect of receivables has been raised in relation to any outstanding balances, and no other expense has been recognised in respect of impaired receivables from related parties. Amounts receivable and amounts payable are unsecured and made on normal commercial terms and conditions.

18. Remuneration of Auditor

	2023 $M	2022 $M
Audit Office of NSW		
Audit of financial statements	**0.5**	0.5

19. Contingent Liabilities

Contingent Liabilities

Land Remediation

The Corporation has engaged experts to assess the risk of the existence of contamination on sites. The expert has identified several sites where the risk of existing contamination is high. These sites are being assessed to determine the existence and extent of contamination. The assessment provides the extent of work and the related costs necessary to remediate the sites. A limited number of sites have been assessed to date, with a provision made for estimated remediation costs. The extent of contamination and cost of remediation of the remaining sites cannot yet be reliably estimated.

Tathra Bushfire

A bushfire on 18 March 2018 in the southern region of NSW, within the Corporation's power distribution footprint, resulted in significant property damage. Deputy State Coroner Truscott conducted an enquiry in 2020 into the cause and origin of the fire and delivered findings in December 2021. The findings noted that the origin was in a powerline easement and the cause being powerlines igniting vegetation when in contact with the ground. A financial exposure could arise from separate civil proceedings commenced in the Supreme Court of NSW against the Corporation. At the time of finalising these financial statements it is too early to estimate any likelihood of liability arising nor the quantum of any liability. A defence has been filed denying all liability. Orders have been made to progress the matter to a mediation (likely to occur between late November and early December 2023) and a hearing (to commence 19 February 2024). The relevant deductible (excess) applicable under the Corporation's liability insurance policy is $10.0M.

Guarantees

	2023 $M	2022 $M
Guarantees provided to regulatory and statutory authorities	**20.0**	20.0

20. Capital Commitments

	2023 $M	2022 $M
Commitments for the acquisition of property, plant and equipment contracted for at the reporting date but not recognised as liabilities (including GST)	**34.4**	47.5
GST credits	**3.1**	4.3

21. Leases

(a) The Corporation as a Lessee

The Corporation leases various properties, including land, buildings and radio sites (classified as land and buildings), and transmission lines. Lease contracts vary from one to 100 years and may have extension options, mainly between one and five years. Most leased sites are occupied by the Corporation for long periods of time. Extension options on higher value leases allow the Corporation flexibility to manage the portfolio to align with business needs. Lease terms for the higher value contracts are negotiated on an individual basis. Extension and termination options are included in several property leases and are generally exercisable by the Corporation and not by the respective lessor. Extension options, generally between one and five years, are included in the lease term unless the Corporation has a specific plan to not continue the lease. Many of the leases have contingent rentals either based on CPI or other fixed percentage. The assessment of lease term is reviewed at least annually. No changes were made to the lease term assumption during the year.

The Corporation has many low value leases, mainly comprising licence arrangements for the non-exclusive right to erect radio equipment on a site. The Corporation has elected to recognise payments for short-term leases and low-value leases as expenses on a straight-line basis, instead of recognising a right-of-use asset and lease liability.

AASB 16 Leases (AASB 16) requires a lessee to recognise a right-of-use asset for most leases. The right-of-use asset and corresponding liability are initially measured at the present value of the future lease payments. The right-of-use assets are subsequently measured at cost. Right-of-use assets are generally depreciated over the lease term which is one to 15 years. The impairment review of right-of-use assets is performed as part of the impairment reviews at the CGU level (refer to Note 7).

Right-of-use Assets under Leases

The following table presents right-of-use assets under leases.

	Land and buildings	
	2023 $M	**2022 $M**
Balance at start of year	**33.1**	36.7
Additions	**1.7**	2.0
Retirements and lease modifications	**0.9**	(0.6)
Depreciation expense	**(4.6)**	(5.0)
Balance at end of year	**31.1**	33.1

Lease Liabilities

The following table presents liabilities under leases.

	2023 $M	2022 $M
Balance at start of year	**43.8**	47.4
Additions	**1.7**	2.0
Interest expense	**1.5**	1.5
Lease modifications	**0.5**	(1.5)
Payments	**(5.8)**	(5.6)
Balance at end of year	**41.7**	43.8

The following amounts were recognised in the Statement of Comprehensive Income in respect of leases where the Corporation is the lessee:

	2023 $M	2022 $M
Depreciation expense of right-of-use assets	**4.6**	5.0
Interest expense on lease liabilities	**1.5**	1.5
Total amount recognised in the Statement of Comprehensive Income	**6.1**	6.5

The Corporation has total cash outflows for leases of $5.8M for the year ended 30 June 2023 (2022: $5.6M).

The future minimum lease payments under non-cancellable leases are as follows:

	2023 $M	2022 $M
Within 12 months	**6.2**	6.2
Twelve 12 or longer and not longer than five years	**22.5**	22.2
Longer than five years[4]	**25.5**	29.4
Total (including GST)	**54.2**	57.8
GST credits	**4.9**	5.3

4 The leases greater than five years are mainly leases with no fixed term contract and are expected to continue for an indefinite period.

(b) The Corporation as Lessor

The Corporation leases out its properties, including premises, land and communications towers and fibre network, under operating lease agreements at market rentals, predominantly on a fixed term basis. The future minimum lease payments under non-cancellable leases are as follows:

	2023 $M	2022 $M
Within 12 months	**1.7**	0.9
12 months or longer and not longer than five years	**1.9**	1.6
Longer than five years[5]	**1.0**	0.8
Total (including GST)	**4.6**	3.3
GST debits	**0.4**	0.3

During the year ended 30 June 2023 $4.5M (2022: $1.1M) was recognised as lease income in profit or loss.

22. Reconciliation of Cash Flows from Operating Activities

	2023 $M	2022 $M
Profit for the year	**(8.1)**	31.2
Add/(less) non-cash items:		
Depreciation, amortisation, impairment and write-off of owned non-financial assets	**459.3**	414.0
Gifted assets and capital grants	**(179.7)**	(130.0)
Unrealised losses on foreign currency balances and derivatives	**0.2**	0.3
Non-cash superannuation expenses	**(3.7)**	(1.5)
Net loss on disposal and write-off of property, plant and equipment	**43.4**	12.3
Amortisation of deferred interest (income)/expense	**(9.5)**	38.4
Capitalisation of indexed bonds indexation	**33.1**	15.8
Changes in assets and liabilities:		
Decrease/(increase) in accrued revenue from unread meters	**13.0**	(14.0)
Increase in other receivables	**(5.2)**	(9.1)
Increase in inventories	**(12.7)**	(4.1)
Increase in accrued operating expenditure	**8.1**	17.3
Increase/(decrease) in current tax balances	**(6.6)**	25.3
Increase/(decrease) in deferred taxes liabilities[6]	**(5.9)**	6.3
(Decrease)/increase in other provisions	**0.5**	(24.0)
Increase/(decrease) in contract liabilities	**15.1**	20.7
Decrease in deferred revenue	**(2.1)**	(0.3)
Net cash from operating activities	**339.2**	398.6

5 The leases greater than five years are mainly leases with no fixed term contract and are expected to continue for an indefinite period.
6 Adjusted for items taken directly to reserves.

23. Superannuation – Defined Benefit Plans

The Corporation has defined benefit superannuation plans covering a significant number of current and past employees, which requires contributions to be made to separately administered funds.

The net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value, and the fair value of any plan assets is deducted.

The discount rate is the market yields on High Quality Corporate Bonds (HQCBs) that have maturity dates approximating to the terms of the Corporation's obligations. The calculation is performed by a qualified actuary using the projected unit credit method.

All remeasurements arising from defined benefit plans are recognised in other comprehensive income in the year in which they occur.

Where the calculation results in a benefit to the Corporation, the recognised asset is limited to the net total of any unrecognised actuarial losses and past service costs and the present value of any future refunds from the plan or reductions in future contributions to the plan.

The Corporation has classified the defined benefits schemes wholly as a non-current asset or liability to reflect the appropriate timing of the obligation.

(a) Nature of the Benefits Provided by the Funds

In 1997 predecessor entities now forming part of the Corporation contributed to three defined benefits schemes, namely the State Authorities Superannuation Scheme (SASS), the State Authorities Non-Contributory Superannuation Scheme (SANCS) and the State Superannuation Scheme (SSS). On 1 July 1997 the bulk of employees' benefits were transferred from these superannuation schemes to three divisions of the Energy Industries Superannuation Scheme (EISS) as follows:

- SASS – Division B
- SANCS – Division C
- SSS – Division D

The Energy Industries Superannuation Scheme (EISS) was divided into seven divisions, of which Divisions B, C and D provide defined benefits, that is at least a component of the final benefit is derived from a multiple of member salary and years of membership. Members receive lump sum or pension benefits on retirement, death, disablement and withdrawal. Divisions B, C and D are closed to new members except for members of eligible schemes who can transfer their entitlements into the Scheme.

On 12 May 2023, EISS merged with the Construction and Building Unions Superannuation fund (Cbus). As a result, all EISS members transferred to Cbus and all EISS products closed. Members of Division B, C and D of EISS were transferred to Division B, C and D under the Pool B subdivision of the defined benefits section of Cbus under a 'successor fund' arrangement, which ensured that the defined benefit members' benefits were carried over to Cbus on an equivalency basis. Cbus's trustee is United Super Pty Ltd.

In addition, the Corporation has some employees remaining in defined benefit superannuation plans through SASS, SSS and SANCS.

The SAS Trustee Corporation (STC) Pooled Fund (the Pooled Fund) holds in trust the investments of the above closed NSW public sector superannuation schemes. These schemes are all defined benefit schemes – at least a component of the final benefit is derived from a multiple of member salary and years of membership. Members receive lump sum or pension benefits on retirement, death, disablement and withdrawal.

The Corporation has determined that no separate disclosure of movements in plan assets and obligations and details of plan assets of the defined benefit schemes of SASS, SANCS and SSS (11 members) will not materially influence the users of the financial statements.

These schemes together with the Cbus schemes are referred to collectively as 'the Schemes' hereafter.

(b) Description of the Regulatory Framework

Cbus

Cbus is regulated primarily by the *Superannuation Industry (Supervision) Act 1993* (Cth) (the SIS Act) but is also subject to regulation under the *Superannuation Administration Act 1996* (NSW).

The SIS legislation governs the superannuation industry and provides the framework within which superannuation plans operate. The SIS Regulations require an actuarial valuation to be performed for each defined benefit superannuation plan every three years, or every year if the plan pays defined benefit pensions, unless an exemption has been obtained.

The prudential regulator, the Australian Prudential Regulation Authority (APRA), licenses and supervises regulated superannuation plans. EISS had previously received an APRA exemption from annual actuarial investigations. The most recent triennial investigation was performed as at 30 June 2021. However under Cbus, actuarial investigations will be required annually for the time being. The next investigation will be performed as at 30 June 2023.

SASS, SSS and SANCS

The schemes in the Pooled Fund are established and governed by the following NSW legislation: *Superannuation Act 1916, State Authorities Superannuation Act 1987, Police Regulation (Superannuation) Act 1906, State Authorities Non-Contributory Superannuation Scheme Act 1987*, and their associated regulations.

The schemes in the Pooled Fund are exempt public-sector superannuation schemes under the SIS Legislation. The SIS Legislation treats exempt public-sector superannuation funds as complying funds for concessional taxation and superannuation guarantee purposes.

Under a Heads of Government agreement, the NSW Government undertakes to ensure that the Pooled Fund will conform with the principles of the Commonwealth's retirement incomes policy relating to preservation, vesting and reporting to members and that members' benefits are adequately protected.

The NSW Government prudentially monitors and audits the Pooled Fund and the Trustee Board activities in a manner consistent with the prudential controls of the SIS Legislation. These provisions are in addition to other legislative obligations on the Trustee Board and internal processes that monitor the Trustee Board's adherence to the principles of the Commonwealth's retirement incomes policy.

An actuarial investigation of the Pooled Fund is performed every three years. The last actuarial investigation was performed as at 30 June 2021. The next actuarial valuation is due as at 30 June 2024.

(c) Risk Exposure

There are several risks to which the Funds expose the Employer. The more significant risks relating to the defined benefits are:

- Investment Risk: The risk that investment returns will be lower than assumed and the Employer will need to increase contributions to offset this shortfall.
- Longevity Risk: The risk that pensioners live longer than assumed, resulting in pensions being paid for a longer period and thereby requiring additional employer contributions.
- Pension Indexation Risk: The risk that pensions will increase at a rate greater than assumed, increasing future pensions and thereby requiring additional employer contributions.
- Salary Growth Risk: The risk that wages or salaries (on which future benefit amounts for active members will be based) will rise more rapidly than assumed, increasing defined benefit amounts and thereby requiring additional employer contributions.
- Legislative Risk: The risk is that legislative changes could be made which increase the cost of providing the defined benefits.

The defined benefit fund assets are invested with independent fund managers and have a diversified asset mix. The Funds have no significant concentration of investment risk or liquidity risk.

(d) Description of Other Entities' Responsibilities for the Governance of the Funds

The Schemes' Trustees are responsible for the governance of the Schemes. The Trustees have a legal obligation to act solely in the best interests of the Schemes' beneficiaries. The Trustees have the following roles:

- Administration of the Scheme and payment to the beneficiaries from Scheme assets when required in accordance with the Scheme rules
- Management and investment of the Scheme assets
- Compliance with other applicable regulations
- Compliance with the Trust Deed.

(e) Description of Significant Events

A curtailment gain arose during the year due to a higher level of exits than expected over the year.

(f) Net Defined Benefit (Liability)/Asset and Reconciliation of Movements in Balances

The following tables summarise the net asset/(liability) recognised in the Statement of Financial Position within non-current assets and non-current provisions.

	30 June 2023			30 June 2022		
	Present Value of Obligation $M	Fair Value of Plan Asset $M	Scheme Surplus/ (deficit) $M	Present Value of Obligation $M	Fair Value of Plan Asset $M	Scheme Surplus/ (deficit) $M
Cbus	**(261.7)**	**267.3**	**5.6**	(286.1)	292.0	5.9
SASS	**(5.6)**	**6.1**	**0.5**	(7.0)	7.6	0.6
SANCS	**(0.3)**	**(0.2)**	**(0.5)**	(0.5)	–	(0.5)
SSS	**(1.4)**	**1.4**	**–**	(1.6)	1.6	–
Total	**(269.0)**	**274.6**	**5.6**	(295.2)	301.2	6.0

The following tables summarise the components of net benefit expenses recognised in the profit or loss, actuarial gains and losses recognised in other comprehensive income, and funded status and amounts recognised in the Statement of Financial Position.

	2023			2022		
	Total Present Value of Obligation $M	Total Fair Value of Plan Asset $M	Total $M	Total Present Value of Obligation $M	Total Fair Value of Plan Asset $M	Total $M
At 1 July	**(295.2)**	**301.2**	**6.0**	(342.6)	325.4	(17.2)
(Expense)/income recognised in profit or loss						
Current service cost	**(1.4)**	**–**	**(1.4)**	(2.3)	–	(2.3)
Gains arising from curtailment settlement	**11.5**	**(10.4)**	**1.1**	–	–	–
Interest (expense)/income	**(14.8)**	**15.2**	**0.4**	(9.4)	9.0	(0.4)
	(4.7)	**4.8**	**0.1**	(11.7)	9.0	(2.7)
Income/(expense) recognised in other comprehensive income						
Remeasurements						
Return on plan assets, excluding amounts included in interest (expense)/income	**–**	**(2.3)**	**(2.3)**	–	(18.4)	(18.4)
Gain/(loss) from change in demographic assumptions	**–**	**–**	**–**	(6.9)	–	(6.9)
Gain/(loss) from change in financial assumptions	**3.4**	**–**	**3.4**	56.7	–	56.7
Gain/(loss) from change in liability experience	**1.8**	**–**	**1.8**	(8.3)	–	(8.3)
	5.2	**(2.3)**	**2.9**	41.5	(18.4)	23.1
Adjustment for effect of asset ceiling[7]	**–**	**(7.0)**	**(7.0)**	–	(1.4)	(1.4)
	5.2	**(9.3)**	**(4.1)**	41.5	(19.8)	21.7
Contributions by Fund participants						
Employers	**–**	**3.6**	**3.6**	–	4.2	4.2
Plan participants	**(1.5)**	**1.5**	**–**	(1.7)	1.7	–
	(1.5)	**5.1**	**3.6**	(1.7)	5.9	4.2
Benefits paid	**25.8**	**(25.8)**	**–**	17.8	(17.8)	–
Taxes, premiums and expenses paid	**1.4**	**(1.4)**	**–**	1.5	(1.5)	–
At 30 June	**(269.0)**	**274.6**	**5.6**	(295.2)	301.2	6.0

7 The asset ceiling is the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan or other plans. The adjustment for the effect of asset ceiling has been determined based on the change in the maximum economic benefit available to the Corporation in the form of reductions in future employer contributions.

(g) Fair Value of Fund Assets

All Cbus Division B, C and D assets are held in Pool B of the Scheme, Pool B in turn holds units invested in the Energy Investment Fund, a pooled superannuation trust. As such, assets are not separately invested for each employer and it is not possible or appropriate to disaggregate and attribute fund assets to individual entities, and the disclosures below relate to total assets of Pool B of the Scheme. The investment in the Energy Investment Fund is valued using significant observable inputs (Level 2) and amounted to $1,794.5M (2022: $1,835.2M) at reporting date. Some Cbus Pool B assets are invested in accordance with member investment choices. Pool B assets invested in the Energy Investment Fund but not subject to member investment choice are included in the table below. The approximate percentage invested in each asset class at the reporting date is:

As at	30 June 2023	30 June 2022
Australian listed equities	**14%**	17%
Overseas listed equities	**23%**	20%
Property	**16%**	16%
Private equity	**3%**	2%
Infrastructure	**10%**	13%
Alternatives	**13%**	15%
Fixed income	**11%**	11%
Cash and short-term securities	**10%**	6%
Total	**100%**	100%

The trustees invest all scheme assets at arm's length through independent fund managers.

For Cbus, derivatives can be used by investment managers, however strict investment guidelines detail all limits approved on the use of derivatives. The use of derivatives is governed by the investment policies, which permit the use of derivatives to change the Fund's exposure to particular assets. The Trustee requires derivative financial instruments are not entered into for speculative purposes or to gear the Fund, and that all derivatives positions are (a) fully cash covered; (b) are offset to existing assets; or (c) are used to alter the exposures in underlying asset classes. Compliance with policies and exposure limits is reviewed by the Trustee on a continual basis. As such the investment managers make limited use of derivatives.

(h) Fair Value of the Corporation's own Financial Instruments

The fair value of Plan assets includes no amounts relating to:

- any of the Corporation's own financial instruments
- any property occupied by, or other assets used by, the Corporation.

(i) Significant Actuarial Assumptions at the Reporting Date

	2023	2022
Expected salary increase rate (excluding promotional increases)	**3.0% for 2023/24 then 2.5% pa thereafter**	2.50% pa
Rate of CPI increase	**6.65% for 2023/24 3.50% for 2024/25 3.00% for 2025/26 then 2.50% pa thereafter**	4.00% for 2022/23 5.50% for 2023/24 3.00% for 2024/25 and 2025/26 2.75% for 2026/27 and 2027/28 2.50% pa thereafter
Discount rate	**5.57% pa**	5.30% pa
Pensioner mortality	**The pensioner mortality rates used are as per the triennial valuation of the scheme as at 30 June 2021**	The pensioner mortality rates used are as per the triennial valuation of the scheme as at 30 June 2021

(j) Sensitivity Analysis

The defined benefit obligation has been recalculated by changing the assumptions as outlined above, while retaining all other assumptions. The sensitivity of the Corporation's total defined benefit obligation as at 30 June 2023 to the significant actuarial assumptions is presented below. The impacts shown are with other assumptions being retained.

Actuarial Assumption	Scenario of Change in Assumption	Relationship of Unobservable Inputs to Defined Benefit Obligation
Discount rate	+/- 100 basis points	The higher the discount rate the lower the defined benefit obligation. A 100 basis point increase in discount rate results in a $15.7M reduction in defined benefit obligation. A 100 basis point decrease in discount rate results in a $19.4M increase in defined benefit obligation.
CPI	+/- 50 basis points	The higher the CPI rate the higher the defined benefit obligation. A 50 basis point increase in CPI rate results in a $5.3M increase in defined benefit obligation. A 50 basis point decrease in CPI rate results in a $4.9M decrease in defined benefit obligation.
Salary increase rate	+/- 0.5%	The higher the salary increase the higher the defined benefit obligation. A 0.5 per cent increase in salary increase results in a $4.4M increase in defined benefit obligation. A 0.5 per cent decrease in salary increase rate results in a $4.2M decrease in defined benefit obligation.
Pensioner mortality	+/- 5%	The higher the pensioner mortality rate the lower the defined benefit obligation. An increase in pensioner mortality rate using the assumption that the short-term pensioner mortality improvement factors for years 2018-2024 also apply for years after 2024 results in a $0.9M increase in defined benefit obligation. A decrease in pensioner mortality rate using the assumption that the long-term pensioner mortality improvement factors for years post 2024 also apply for years 2018 to 2024 results in a $0.1M decrease in defined benefit obligation.

(k) Asset-Liability Matching Strategies

For Cbus the assets of the Scheme are managed using a Liability Driven Investment approach.

In respect of the STC Pooled Fund the Trustee monitors its asset-liability risk continuously in setting its investment strategy. It also monitors cashflows to manage liquidity requirements. No explicit asset-liability matching strategy is used by the Trustee.

(l) Funding Arrangements

Funding arrangements are reviewed at least every three years following the release of the triennial actuarial review and were last reviewed following completion of the triennial review as at 30 June 2021. Contribution rates are set after discussions between the employer and the trustee. In the case of the STC Pooled Fund, NSW Treasury is consulted.

Funding positions are reviewed annually, and funding arrangements may be adjusted as required after each annual review. Note that under Cbus, actuarial investigations will be required to be performed annually for the time being.

Surplus/(deficit)

The following is a summary of the 30 June 2023 financial position of the Fund calculated in accordance with AASB 1056 Superannuation Entities:

	Cbus		Other		Total	
	2023 $M	2022 $M	2023 $M	2022 $M	2023 $M	2022 $M
Accrued benefits	**254.3**	289.7	**6.6**	8.1	**260.9**	297.8
Net market value of Fund assets	**(273.8)**	(292.0)	**(11.5)**	(12.7)	**(285.3)**	(304.7)
Net surplus	**(19.5)**	(2.3)	**(4.9)**	(4.6)	**(24.4)**	(6.9)

Contribution Recommendations

Recommended contribution rates for the Corporation to the main scheme (Cbus) are:

Division B Multiple of Member Contributions	Division C Per Cent Member Salary	Division D Multiple of Member Contributions	Additional Lump Sum $M Per Annum
1.9	2.5%	1.64	nil

Recommended contribution rates for the Corporation to the Pooled Fund are $nil.

(m) Significant Actuarial Assumptions at the Reporting Date

The economic assumptions adopted for the AASB 1056 financial position calculations are:

Weighted-Average Assumptions	Cbus	Other
Expected rate of return on Fund assets backing current pension liabilities	6.1% pa	7.0% pa
Expected rate of return on Fund assets backing other liabilities	6.1% pa	6.2% pa
Expected salary increase rate	3.0% pa for 2023/24 and for 2024/25, 3.5% pa thereafter	4.45% for 23/24, 2.95% for 24/25, 2.74% for 25/26, 3.20% pa thereafter
Expected rate of CPI increase	2.5% pa	6.65% for 23/24, 3.50% for 24/25, 3.00% for 25/26, 2.50% pa thereafter

The above economic assumptions were adopted for the 30 June 2023 annual funding update.

(n) Sensitivity Analysis – AASB 1056

The assumptions for CPI, Salary and demographics are broadly the same under both AASB 119 and AASB 1056. While the underlying liability amounts for AASB 1056 are lower than for AASB 119, the sensitivity of results under AASB 119 gives an indication to the directional and proportional impact of the changes in these assumptions.

The one assumption that differs substantially under the two standards is the expected rate of return on the fund assets (discount rate). Due to this variation and the potential for material variation in the rate of return on Cbus's assets in current financial conditions, sensitivities to this assumption for the 30 June 2023 AASB 1056 results are presented below.

Actuarial Assumption	Scenario of Change in Assumption	Relationship of Unobservable Inputs to Defined Benefit Obligation
Expected rate of return on Fund assets backing current pension liabilities and other liabilities (discount rate)	+/- 50 basis points	The higher the discount rate the lower the defined benefit obligation. A 50 basis point increase in discount rate results in a $7.4M reduction in defined benefit obligation. A 50 basis point decrease in discount rate results in a $7.9M increase in defined benefit obligation.

Expected contributions

	Financial Year to 30 June 2023 $M
Expected employer contributions	
– Cbus	**3.3**
– Other	**–**

Maturity profile of defined benefit obligation

The weighted average duration of the defined benefit obligation is nine years (2022: 11 years) for the Cbus scheme, while it is 11.2 years (2022: 11.3 years) for the Pooled Fund.

(o) Nature of Asset/Liability

If a surplus exists in the employer's interest in the Fund, the employer may be able to take advantage of it in the form of a reduction in the required contribution rate, depending on the advice of the Fund's actuary.

Where a deficiency exists, the employer is responsible for any difference between the employer's share of Fund assets and the defined benefit obligation.

24. Events Subsequent to Reporting Date

The financial statements of the Corporation for the year ended 30 June 2023 were authorised for issue in accordance with a resolution of the Board on 15 September 2023.

There are no known other events that would impact on the state of affairs of the Corporation or have a material impact on these statements up to that date.

End of audited financial statements

Statement by Directors

FOR THE YEAR ENDED 30 JUNE 2023

Pursuant to Section 7.6(4) of the *Government Sector Finance Act 2018*, we state that in the opinion of the directors of Essential Energy:

a. The accompanying financial statements are general purpose financial statements which have been prepared in accordance with Australian Accounting Standards (including Australian Accounting interpretations adopted by the Australian Accounting Standards Board), requirements of the *Government Sector Finance Act 2018, the Government Sector Finance Regulation 2018*, the *State Owned Corporations Act* and the Treasurer's Direction issued under the *Government Sector Finance Act 2018*. The financial statements of the Corporation also comply with International Financial Reporting Standards (IFRS) and interpretations adopted by the International Accounting Standards Board and presents fairly the financial position of the Corporation as at 30 June 2023, and its financial performance and cash flows for the year ended on that date;

b. At the date of this statement, there are reasonable grounds to believe that the Corporation will be able to pay its debts as and when they become due and payable; and

c. We are not aware of any circumstances at the date of this statement that would render any particulars included in the financial statements to be misleading or inaccurate.

This declaration is made in accordance with a resolution of the Board.

JOHN CLELAND
Chief Executive Officer

Dated: 15 September 2023

DOUG HALLEY
Chair

15 September 2023

Appendices

Summary of overseas travel 2022-23

PURPOSE OF TRAVEL	NAMES OF EMPLOYEES	ORGANISATION VISITED	CITIES	COUNTRY	DATE OF DEPARTURE FROM AUSTRALIA	DATE OF RETURN INTO AUSTRALIA
Strategic Leadership Programme	Sarah McCullough	Institute for Strategic Leadership	Queenstown	New Zealand	3/09/2022	11/09/2022
Oracle Cloud World Conference	Steven Howe	Oracle	Las Vegas	USA	15/10/2022	21/10/2022
Strategic Leadership Programme	Amalie Smith	Institute for Strategic Leadership	Queenstown	New Zealand	5/11/2022	12/11/2022
DistribuTECH and International Wildfire Risk Mitigation Consortium conferences, and site visits to Pacific Gas and Electric Company and San Diego Gas and Electric	David Nardi, Chris Dhu, Col Ussher, Heath Frewin	Pacific Gas and Electric Company, San Diego Gas and Electric, UMS Group	Los Angeles, San Diego, San Francisco	USA	6/02/2023	17/02/2023
Post cyclone restoration assistance	Daniel Baker, Richard Venner	Department of Foreign Affairs and Trade	Port Vila	Vanuatu	5/03/2023	10/03/2023
Oracle Customer Edge Conference, Oracle Utilities User Group, and site visit	Michael Pelley, Shane Southwell, Bradley Thomas	Oracle	Los Angeles, San Diego	USA	10/03/2023	20/03/2023
Strategic Leadership Programme	Anthony Mitchell	Institute for Strategic Leadership	Queenstown	New Zealand	11/03/2023	20/03/2023
Vendor meetings and International Utilities and Energy Conference 2023	Sarah McCullough	Apple, Microsoft, Oracle, Accenture	Cupertino, Seattle, Los Angeles	USA	23/03/2023	6/04/2023
International Utilities and Energy Conference 2023 and meeting with PwC Calgary	John Cleland	Accenture, PwC	Los Angeles, Calgary	USA, Canada	31/03/2023	16/04/2023
International Utilities and Energy Conference 2023	Patrick Bossert	Accenture	Los Angeles	USA	1/04/2023	8/04/2023
Cybersecurity innovation tour	David Archer, Bradley Flanagan	Microsoft, Amplitude, Okta, Sugar Innovation Network, Rubrik, Proofpoint, Crowdstrike	Seattle, San Francisco	USA	26/05/2023	11/06/2023
Strategic Leadership Programme	Natalie Lindsay	Institute for Strategic Leadership	Queenstown	New Zealand	10/06/2023	18/06/2023

Government Information (Public Access) Act 2009

The *Government Information (Public Access) Act 2009* (NSW) (GIPA Act) establishes a comprehensive system for public access to government information. Essential Energy is subject to the requirements of the GIPA Act, and is committed to complying with the Act in a fair and objective manner when dealing with external requests for access to company information. The business supports the proactive release of information where it is in the public interest to do so.

In addition to information published in compliance with the GIPA Act, Essential Energy makes a range of information publicly available through our website to support members of the public in understanding our operations, particularly those of interest to the community. This includes information about Essential Energy's assets and networks, policies and standards, customer connections, and public safety around electricity assets. Our website also includes a document library and approved materials list to support customers and businesses in understanding and complying with our polices, standards and requirements.

Where information is not publicly available, Essential Energy supports the informal release of information where appropriate and consistent with the GIPA Act, and reviews informal requests for information and formal applications in considering its program for release of information as per section 7(3) of the GIPA Act. There were no material changes to this program as a result of this review during financial year 2022-23.

Total number of access applications received during the year

In 2022-23 Essential Energy received 12 formal access applications for information pursuant to the GIPA Act. The formal applications received were from members of the public (or their legal representatives) and private sector businesses.

In response to the formal access applications received in 2022-23, 10 applications were finalised in 2022-23 and one application was withdrawn. One application was in progress at 30 June 2023. Full access was also provided for two applications received in 2021-22 and finalised in 2021-22. Of the 12 finalised applications in this reporting period, access was provided in full on 11 occasions and in part on one occasion.

In the course of determining access applications during the financial year, Essential Energy did not rely on conclusive presumptions of overriding public interest against disclosure (as set out in schedule 1 of the GIPA Act) on any occasion.

Statistical information about access applications

As required by Section 8 and Schedule 2 of the Government Information (Public Access) Regulation 2018 (NSW), the following tables provide a summary of the decisions made pursuant to the GIPA Act during the reporting year 2022-23.

Table A: Number of applications by type of applicant and outcome

	ACCESS GRANTED IN FULL	ACCESS GRANTED IN PART	ACCESS REFUSED IN FULL	INFORMATION NOT HELD	INFORMATION ALREADY AVAILABLE	REFUSE TO DEAL WITH APPLICATION	REFUSE TO CONFIRM/ DENY WHETHER INFORMATION IS HELD	APPLICATION WITHDRAWN
Media	0	0	0	0	0	0	0	0
Members of Parliament	0	0	0	0	0	0	0	0
Private sector business	4	1	0	0	0	0	0	1
Not-for-profit organisations or community groups	0	0	0	0	0	0	0	0
Members of the public (application by legal representative)	2	0	0	0	0	0	0	0
Members of the public (other)	6	0	0	0	0	0	0	0

More than one decision can be made in respect of a particular access application. If so, a recording must be made in relation to each such decision. This also applies to Table B.

Table B: Number of applications by type of application and outcome

	ACCESS GRANTED IN FULL	ACCESS GRANTED IN PART	ACCESS REFUSED IN FULL	INFORMATION NOT HELD	INFORMATION ALREADY AVAILABLE	REFUSE TO DEAL WITH APPLICATION	REFUSE TO CONFIRM/ DENY WHETHER INFORMATION IS HELD	APPLICATION WITHDRAWN
Personal information applications[1]	3	0	0	0	0	0	0	0
Access applications (other than personal information applications)	9	1	0	0	0	0	0	1
Access applications that are partly personal information applications and partly other	0	0	0	0	0	0	0	0

1. A personal information application is an access application for personal information (as defined in clause 4 of Schedule 4 to the Act) about the applicant (the applicant being an individual).

Table C: Invalid applications

REASON FOR INVALIDITY	NUMBER OF APPLICATIONS
Application does not comply with formal requirements (section 41 of the Act)	0
Application is for excluded information of the agency (section 43 of the Act)	0
Application contravenes restraint order (section 110 of the Act)	0
Total number of invalid applications received	0
Invalid applications that subsequently became valid applications	0

Table D: Conclusive presumption of overriding public interest against disclosure: matters listed in Schedule 1 of the Act

	NUMBER OF TIMES CONSIDERATION USED[1]
Overriding secrecy laws	0
Cabinet information	0
Executive Council information	0
Contempt	0
Legal professional privilege	0
Privilege generally	0
Excluded information	0
Documents affecting law enforcement and public safety	0
Transport safety	0
Adoption	0
Care and protection of children	0
Ministerial code of conduct	0
Aboriginal and environmental heritage	0
Information provided to High Risk Offenders Assessment Committee	0

1. More than one public interest consideration may apply in relation to a particular access application and, if so, each such consideration is to be recorded (but only once per application). This also applies in relation to Table E.

Table E: Other public interest considerations against disclosure: matters listed in table to Section 14 of the Act

	NUMBER OF TIMES CONSIDERATION USED[1]
Responsible and effective government	0
Law enforcement and security	0
Individual rights, judicial processes, and natural justice	1
Business interests of agencies and other persons	0
Environment, culture, economy, and general matters	0
Secrecy provisions	0
Exempt documents under interstate Freedom of Information legislation	0

1. Includes applications where access is granted in part, or refused in full.

Table F: Timelines

	NUMBER OF APPLICATIONS
Decided within the statutory timeframe (20 days plus any extensions)	12
Decided after 35 days (by agreement with applicant)	0
Not decided within time (deemed refusal)	0
Total	12

Table G: Number of applications reviewed under Part 5 of the Act (by type of review and outcome)

	DECISION VARIED	DECISION UPHELD	TOTAL
Internal review	0	0	0
Review by Information Commissioner[1]	0	0	0
Internal review following recommendation under section 93 of Act	0	0	0
Review by NSW Civil and Administrative Tribunal (NCAT)	0	0	0
Total	0	0	0

1. The Information Commissioner does not have the authority to vary decisions but can make recommendation to the original decision maker. The data in this case indicates that a recommendation to vary or uphold the original decision has been made.

Table H: Applications for review under Part 5 of the Act (by type of applicant)

	NUMBER OF APPLICATIONS FOR REVIEW
Applications by access applicants	0
Applications by persons to whom information the subject of access application relates (see section 54 of the Act)	0

Table I: Applications transferred to other agencies under Division 2 of Part 4 of the Act (by type of transfer)

	NUMBER OF APPLICATIONS TRANSFERRED
Agency-initiated transfers	0
Applicant-initiated transfers	0

Workforce statistics

Number of officers and employees by category

CATEGORY	30 JUNE 2023		30 JUNE 2022		30 JUNE 2021		30 JUNE 2020		30 JUNE 2019	
Gender	M	F	M	F	M	F	M	F	M	F
Executive Leadership Team	5	3	6	3	7	2	6	2	7	2
Non-executives	2,693	578	2,536	539	2,510	525	2,490	520	2,500	516
Total	2,698	581	2,542	542	2,517	527	2,496	522	2,507	518

Workforce diversity targets and progress as at 30 June 2023

REPRESENTATIVE GROUP	ESSENTIAL ENERGY PROPOSED TARGET	PROGRESS AT 30 JUNE 2023
Women in the organisation	30%	17.7%
Women in leadership	50%	37.5%
Aboriginal and Torres Strait Islander people in the organisation	6%	4.9%
Aboriginal and Torres Strait Islander people in leadership roles	5%	2.8%
Multicultural	3%	3.0%
DisAbility	3%	1.3%
LGBTI	6%	0.6%

Trends in the representation of workforce diversity groups (target percentages)

WORKFORCE DIVERSITY GROUP	BENCHMARK	2023	2022	2021	2020	2019
Women	50%[1]	17.7%	17.9%	17.6%	17.6%	17.6%
Aboriginal and/or Torres Strait Islander People	3.3%[2]	4.9%	4.5%	4.2%	4.3%	4.0%
People whose First Language Spoken as a Child was not English	23.2%[3]	1.7%	1.8%	1.9%	2.1%	2.0%
People with Disability	5.6%[4]	1.3%	1.5%	1.6%	1.6%	1.6%
People with Disability Requiring Work-Related Adjustment	N/A	0.7%	0.4%	0.4%	0.4%	0.5%

1. The benchmark of 50% for representation of women across the sector is intended to reflect the gender composition of the NSW community.
2. The NSW Public Sector Aboriginal Employment Strategy 2014-17 introduced an aspirational target of 1.8% by 2021 for each of the sector's salary bands. If the aspirational target of 1.8% is achieved in salary bands not currently at or above 1.8%, the cumulative representation of Aboriginal employees in the sector is expected to reach 3.3%.
3. A benchmark from the Australian Bureau of Statistics (ABS) Census of Population and Housing has been included for People whose First Language Spoken as a Child was not English. The ABS Census does not provide information about first language, but does provide information about country of birth. The benchmark of 23.2% is the percentage of the NSW general population born in a country where English is not the predominant language.
4. In December 2017 the NSW Government announced the target of doubling the representation of people with disability in the NSW public sector from an estimated 2.7% to 5.6% by 2027. More information can be found at: Jobs for People with Disability: A plan for the NSW public sector. The benchmark for 'People with Disability Requiring Work-Related Adjustment' was not updated.

Trends in the distribution of workforce diversity groups (Distribution Index scores)

WORKFORCE DIVERSITY GROUP	BENCHMARK	2023	2022	2021	2020	2019
Women	100[1]	106	104	101	99	98
Aboriginal and/or Torres Strait Islander People	100	84	84	83	82	80
People whose First Language Spoken as a Child was not English	100	119	116	113	115	115
People with Disability	100	102	98	98	96	95
People with Disability Requiring Work-Related Adjustment	100	N/A	N/A	N/A	N/A	N/A[2]

1. A Distribution Index score of 100 indicates that the distribution of members of the Workforce Diversity group across salary bands is equivalent to that of the rest of the workforce. A score less than 100 means that members of the Workforce Diversity group tend to be more concentrated at lower salary bands than is the case for other staff. The more pronounced this tendency is, the lower the score will be. In some cases, the index may be more than 100, indicating that members of the Workforce Diversity group tend to be more concentrated at higher salary bands than is the case for other staff.
2. The Distribution Index is not calculated when the number of employees in the Workforce Diversity group is less than 20 or when the number of other employees is less than 20.

Consultants[1]

Payments to consultants costing equal to or greater than $50,000 during 2022-23.

CONSULTANT	PROJECT/ACTIVITY	2022-23 COSTS
Deloitte Touche Tohmatsu	Develop cyber security strategies	$897,794
KPMG	Climate change impact assessment	$341,033
Baringa Partners LLP	Future Network options analysis and business case development for Regulatory Proposal 2024-29	$260,654
Ernst & Young	Transformation capability and delivery model design	$245,000
Ernst & Young	Critical infrastructure gap analysis and implementation plan	$150,000
Farrierswier	Advice on improving the process for major connections	$96,240
Bendelta Pty Ltd	Operating model review	$72,076
Mercer Consulting Australia Pty Ltd	Organisational design review	$67,633
Ernst & Young	Develop compliance plan for Stand Alone Power Systems	$66,942
Logistics Bureau	Inventory optimisation review	$50,088
Total		**$2,247,460**

Payments less than $50,000 were made to 19 consultants, for a total cost of $192,631 during 2022-23.

Research and development[2]

Essential Energy invested $5.3 million in research and development activities during 2022-23, as outlined below.

Future Networks

Future Networks undertakes research and development activities designed to quickly and incrementally develop the capability needed to modernise the electricity grid in a way that supports the changing energy landscape while maintaining agility to respond to any new changes that emerge.

Alternate energy supply

Evaluating and developing the use of alternative load and generation technologies to present more cost-effective ways of managing network and customer needs than traditional network solutions. These include:

- trialing Hydrogen-based Stand Alone Power Systems (SAPS) as a sustainable alternative energy supply solution
- developing an at-scale deployment process for SAPS as an alternative off-grid solution for remote, fringe of grid sites
- installing a 1MW/2MWh network battery at Sovereign Hills, near Port Macquarie, as a means to strengthen network resilience
- testing and developing poletop batteries as a suitable and sustainable low voltage (LV) network reliability improvement alternative over traditional network augmentation
- researching the viability of storage-based microgrids on rural high voltage (HV) network segments to improve network reliability and resilience
- partnering with the Australian National University (Southcoast μ-grid Reliability Feasibility) project to research community-led islandable microgrids to improve resilience.

Voltage management

Developing and evaluating the use of increasing network data availability and emerging voltage management technologies. These include:

- trialing online tap changer (OLTC) voltage regulation technology to understand the applied costs and efficacy of utilising as an alternative to network augmentation
- developing desktop-based proactive network fault identification processes using network performance analytics data
- developing desktop analysis to understand the volume and types of data required to better manage Consumer Energy Resources (CER) on the network
- trialing application of alternative load control settings to utilise excess generation (solar) and more effectively manage voltage constraints through means other than network augmentation.

Public lighting

Trialling light point controller smart nodes that can control lighting output, receive fault and light information across approximately 200 lights in the Bathurst Local Government Area (LGA). Bathurst Council will be trialling sensors in the light point controllers. The trial commenced in April 2023 and ends in December 2023.

1. A consultant is defined as a person or organisation engaged under contract on a temporary basis to provide recommendations or professional advice to assist decision-making by management. Generally, it is the advisory nature of the work that differentiates a consultant from other contractors.
2. Research is defined as original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding. Development is defined as the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services before the start of commercial production or use.

Summary of the substantial legislative changes for 1 July 2022 to 30 June 2023

Material changes to Commonwealth legislation

Extended domestic and family violence leave entitlements

The Fair Work Amendment (Paid Family and Domestic Violence Leave) Act 2022 (Cth) amended the Fair Work Act 2009 (Cth) (FW Act) with effect from 1 February 2023 to replace the previous entitlement in the National Employment Standards (NES) to five days of unpaid family and domestic violence leave in a 12-month period with an entitlement to 10 days of paid leave in a 12-month period for full-time, part-time and casual employees (with no pro rating for non-full time employees). It also extended the definition of family and domestic violence to include conduct of a current or former intimate partner of an employee, or a member of an employee's household.

New duty with respect to sex discrimination and harassment

The Anti-Discrimination and Human Rights Legislation Amendments (Respect at Work) Act 2022 (Cth) amended key discrimination legislation with effect from 13 December 2022. The amendments impose a new positive duty on employers and persons conducting a business or undertaking (PCBU) to proactively take reasonable and proportionate measures to eliminate, so far as possible, sexual harassment, sex-based harassment, sex discrimination and certain acts of victimisation, in workplaces. The amendments also prohibit conduct that subjects another person to a workplace environment that is hostile on the ground of sex and empower the Australian Human Rights Commission to inquire into systemic unlawful discrimination.

Secure Jobs, Better Pay Act

The Fair Work Amendment (Secure Jobs, Better Pay) Act 2022 (Cth) amended various legislation, including the FW Act with effect from 7 December 2022. The amendments include pay secrecy provisions which give employees workplace rights to disclose (or not disclose) their remuneration and other information relevant for determining remuneration, and ask other employees about such information and invalidate terms in any employment contract entered into or varied from 7 December 2022 which are inconsistent with those workplace rights.

The amendments also include:

1. provisions for encouraging and facilitating multi-business enterprise bargaining
2. simpler bargaining and approval processes for enterprise agreements, including the 'better off overall test'
3. updates to the provisions for the termination of enterprise agreements after their nominal expiry date
4. provisions to recognise breastfeeding, gender identity and intersex status as protected attributes (in respect of adverse action prohibitions)
5. provisions for enhanced remuneration principles to guide the Fair Work Commission's consideration of equal remuneration free of assumptions of gender.

On 6 March 2023, broad prohibitions on sexual harassment in connection with work, and enhanced powers of the Fair Work Commission (FWC) to deal with workplace sexual harassment, came into effect.

Changes effective from 6 June 2023 included:

- changes to provisions for requests for flexible working arrangements, including expanded grounds for requests (family and domestic violence, pregnancy), and enhanced obligations on employers to deal with such requests
- increased powers of the FWC to deal with disputes about extension of periods of unpaid parental leave and rejection of requests for flexible work arrangements
- creation of a civil offence (including penalties) of entering into a contract of employment or other written agreement with an employee, where the contract or agreement contains a pay secrecy term.

Material changes to New South Wales Legislation and Regulations

New WHS psychosocial risk management Amendment Regulation

The Work Health and Safety Amendment Regulation 2022 (NSW) introduces a requirement that PCBUs manage psychosocial risks in accordance with the risk management provisions of the Work Health and Safety Regulation 2017 (NSW) (NSW WHS Regulation) (excluding clause 36 concerning hierarchy of control measures) and specifies factors that a PCBU must have regard to when determining which controls to implement. The new requirements commenced on 1 October 2022.

The amendment regulation also clarifies that compliance with provisions of Australian Standards is not mandatory unless specified in a WHS clause.

Offences attracting on-the-spot fines made to New South Wales WHS regulations

The Work Health and Safety Amendment (Penalty Notices) Regulation 2022 (NSW) commencing on 14 October 2022 increases the number of offences that attract on-the-spot fines under Schedule 18A of the NSW WHS Regulation.

Individuals and corporations can now be handed infringement notices of $720 and $3,600 respectively for:

- failing to ensure electrical equipment is tested by a competent person to determine whether or not it is energised before electrical work is carried out on it
- not ensuring electrical risks associated with the supply of electricity to electrical equipment through a socket outlet are minimised by the use of an appropriate residual current device (RCD)
- failing to ensure, so far as is reasonably practicable, that no person, plant or thing at a workplace comes within an unsafe distance of an overhead or underground electric line (or failing to implement prescribed controls where this isn't reasonably practicable).

Individuals and corporations also can now be handed on-the-spot fines of $432 and $2,160 respectively for failing to ensure any unsafe electrical equipment at a workplace is disconnected or isolated from its electricity supply, and, once disconnected or isolated, is not reconnected until it is repaired or tested and found to be safe, or is replaced or permanently removed from use.

Material changes to Queensland legislation

Protections against workplace harassment strengthened in Queensland

On 31 October 2022, the Queensland Government's Industrial Relations and Other Legislation Amendment Bill 2022 passed Parliament, increasing the State Industrial Relations Commission (IRC)'s powers around sexual or gender-based harassment, and facilitating the summary dismissal of harassers. Relevant amendments include the following:

- A larger range of avenues for the resolution of complaints beyond stop-sexual-harassment orders

- Powers conferred on the IRC to issue injunctive relief to protect victims of sexual, sex or gender-based harassment
- Extending the access to 10 days of paid domestic and family violence leave per year to casual workers employed under Queensland's industrial relations jurisdiction
- Gender pay equity in collective bargaining negotiations.

Amendments regarding the management of psychosocial risks made to Queensland WHS Regulations

The Work Health and Safety (Psychosocial Risks) Amendment Regulation 2022 (QLD), commenced on 1 April 2023, amending the Work Health and Safety Regulation 2011 (QLD) to introduce requirements as to duties on PCBUs to manage psychosocial risks and determine control measures for psychosocial risks.

The changes are similar to the national model WHS Regulations, as adopted by NSW in September, but with a key difference to apply the hierarchy of controls to psychosocial risks, pursuant to clause 36 of the WHS Regulation.

Queensland's Managing the risk of psychosocial hazards at work Code of Practice 2022 also came into effect on 1 April 2023, the same day as the commencement of the regulations, compliance with which is mandatory under the QLD WHS Act.

Mandatory electronic conveyancing in Queensland for certain land registry instruments

From 20 February 2023 pursuant to the Land Title Regulation 2022 (Qld), the following land registry instruments in Queensland are mandated to be lodged via an Electronic Lodgement Network unless an exemption applies: transfers, mortgages, release of mortgages, caveats, withdrawal of caveats, priority notices, extension of priority notices, withdrawal of priority notices and transmissions by death.

Australian Energy Regulator (AER) Determinations

AER released the first contribution determination under NSW Roadmap

On 24 February 2023, the AER released the first contribution determination for cost recovery under the under the NSW Electricity Infrastructure Roadmap. The total contribution determination amount for 2023-24 is $138.14 million. The amount required to be paid by Essential Energy is $27.83 million.

Essential Energy must now:

- Finalise exemption amounts to be applied to emissions-intensive-trade-exposed entities and green hydrogen producers in line with the Office of Energy and Climate Change's exemptions framework.
- Allocate their contribution amounts according to their respective tariff structure statements.

AER approved Essential Energy's 2022 flood event cost pass through

On 30 March 2023, the AER published its determination on Essential Energy's cost pass through application to recover costs related to widespread flooding events which occurred in the first quarter of 2022. The AER approved a positive pass through amount of $2.2 million (nominal, smoothed).

It is estimated that this will add around $2 to the average Essential Energy residential customer's bill in 2023-24.

National Electricity Rules and National Energy Rules

Regulated stand-alone power systems rules

On 1 August 2022, the Australian Energy Market Commission published version 184 of the National Electricity Rules (NER), which incorporated Schedule 1 of the National Electricity Amendment (Regulated stand-alone power systems) Rule 2022. This removes existing barriers to distributed network service providers (DNSPs) providing stand-alone power systems (SAPS) to customers. It allows for DNSPs to provide SAPS to existing customers, and to offer to connect new customers to existing regulated SAPS where it is more economically efficient than connection to the interconnected national electricity system.

Summary of significant judicial decisions between 1 July 2022 to 30 June 2023

CFMMEU v OS MCAP Pty Ltd [2023] FCAFC 51

On 28 March 2023, a Full Court of the Federal Court of Australia delivered a significant decision with respect to an employee's entitlement under the NES to be absent from work on public holidays.

Under section 114 of the FW Act, an employee is entitled to be absent from employment on a public holiday, unless the employer has requested the employee to work on the public holiday and the request is reasonable, or the employee's refusal is not reasonable.

The Court found that a company had required employees to work on multiple public holidays in 2019, contravening section 114 of the FW Act and the NES because the employer had not made proper and reasonable requests of those employees. Rather, the employer had provided a roster and assumed that employees rostered on public holidays would work those days unless they applied for (and were granted) an absence. The Full Court held that an employer may use a roster system which includes public holidays provided that the employer ensures that either (a) employees understand that the roster is in draft requesting those employees who have been allocated to the holiday work that they indicate whether they accept or refuse that allocation, or (b) a request to an employee to work is made before the roster is finalised.

NSW DNSP fined $600,000 following worker electrocution

Ausgrid has been fined $600,000 (reduced by 25 per cent from $800,000 for its early guilty plea) for breaching sections 19 and 32 of the NSW WHS Act by exposing workers to the risk of death or serious injury from electric shock through contact with uninsulated live low-voltage (LV) electrical apparatus. The proceedings related to an incident where a worker tasked with replacing a power pole and performing a live changeover of overhead conductors made contact with an energised component, suffering fatal injuries. The work crew did not consider de-energising the overhead conductors prior to the commencement of the work. Just nine weeks prior, another worker of Ausgrid had also been electrocuted following a similar incident, suffering severe injuries.

Judge Strathdee found that Ausgrid failed to take the following reasonably practicable measures to eliminate or minimise the risk:

- undertaking an appropriate risk assessment or verifying that an appropriate risk assessment had been undertaken in relation to the performance of LV cross arm changeovers which would have identified the risk and measures for the elimination or minimisation of the risk
- providing and implementing a consolidated, formal, documented SWMS for live cross arm changeovers which sets out, step by step, the sequential process to be followed by the line workers in the conduct of the task, and the relevant controls.

SafeWork NSW v Arkwood (Gloucester) Pty Limited [2022] NSWDC 89

Arkwood (Gloucester) Pty Limited (Arkwood) was found guilty in the District Court of NSW for breaches of the WHS Act arising involving failure to take reasonably practicable measures to eliminate or minimise the risk of a crane coming into contact with energised overhead powerlines, including failing to conduct a risk assessment, develop a SWMS, instruct workers to undertake a joint safety assessment of the work, and ensure that a qualified dogman was present and a spotter was available to identify the location of powerlines.

Arkwood argued that it was entitled to rely upon the expertise and discretion of its specialist subcontractor, regarding safe operation of the crane.

Judge Russell acknowledged that where a task 'demonstrably falls outside the expertise' of a PCBU, and an independent contractor appeared to be performing its work carefully and safely 'then it would ordinarily be difficult to conclude that the PCBU has breached the duties imposed upon it by the legislation'. In upholding the charge, however, the Court rejected Arkwood's claim that it could wholly rely on Highlands in relation to safe operation of the crane, finding that:

- the work undertaken in relation to the incident was within the scope of Arkwood's responsibilities
- Arkwood workers actually checked for power lines and recognised they posed a danger
- whilst physical operation of the crane was left to the crane operator, Arkwood through its workers had the ability to stop any work that was being performed in an unsafe manner
- the measures alleged by SafeWork were reasonable practicable measures that Arkwood should have taken.

Electricity Networks Corporation (ENC) v Herridge Parties [2022] HCA 37

ENC was a statutory authority under the Electricity Corporations Act 2005 (WA) which operated an electricity distribution network in Western Australia. Thiess was contracted to construct, maintain and manage parts of the distribution network, and in so doing, replaced a service cable between ENC's distribution network and a timber pole on land owned by Mrs Campbell. The pole failed which caused electrical arcing and started a bushfire. At first instance, the court dismissed claims of negligence and nuisance against ENC, holding that it discharged its duty of care by engaging Thiess to carry out the relevant work. On appeal, the Court of Appeal held that ENC had a broader duty of care and which it had breached by not implementing a system for periodic inspection of poles owned by consumers like Mrs Campbell which are used to support parts of the distribution network.

The High Court upheld the Court of Appeal's decision, finding:

- There is no freestanding common law rule which fixes whether and when a common law duty of care upon a statutory authority might or might not arise
- Generally, a statutory authority which is under no statutory obligation to exercise a power comes under no common law duty of care to do so. However, a statutory authority which enters upon the exercise of statutory powers with respect to a particular subject matter may place itself in a relationship to others where a common law duty of care attaches to the manner of the exercise of those powers
- The analysis of any common law duty of care that might be owed by a statutory authority must begin with the statutory framework within which the statutory authority operates
- ENC exercised its powers in performing its statutory functions of undertaking, operating, managing and maintaining the relevant electricity distribution system and any works, system, facilities, apparatus or equipment required for those purposes. In the exercise of those powers, its service cable, fuses and meter were on Campbell's land and, in particular, attached to the pole. The pole only posed the risk that it did because the appellant had attached its live electrical apparatus to it
- ENC's exercise of its powers created a relationship between it and all other persons within the vicinity of its electricity distribution system. It had a duty to take reasonable care in the exercise of its powers and the content of that duty relevantly required it to avoid or minimise the risk of injury to those persons, and loss or damage to their property, from the ignition and spread of fire in connection with the delivery of electricity through its distribution system. The common law imposed that duty on it in tort, which operated alongside the rights, duties and liabilities created by statute.

Cyber Security Policy attestation

The NSW Cyber Security Policy is not mandated for State Owned Corporations, so this report does not include a Cyber Security Policy attestation.

Land disposal

Essential Energy did not dispose of any land with a value greater than $5.0 million in 2022-23.

Compliance with the Privacy and Personal Information Protection Act 1998

Essential Energy is regulated by the *Privacy Act 1988* (Cth). *The Privacy and Personal Information Protection Act 1998* (NSW) does not apply to Essential Energy.

Disclosure of approved exemptions

Essential Energy did not seek any exemptions for this 2022-23 Annual Report.

Cost to produce this report

The external cost to produce and publish this report, including digital PDF document, HTML (web) pages and printed hard copies, was $166,717 excluding GST.

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Glossary

AER	Australian Energy Regulator
ASP	Accredited Service Provider
Capex	Capital expenditure
BESS	Battery Energy Storage System
CER	Consumer Energy Resources
EAM	Enterprise Asset Management
EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortisation
EV	Electric vehicle
HPIFR	High Potential Injury Frequency Rate – frequency of all safety incidents that had a reasonable likelihood of resulting in a major or severe injury to any person per million hours worked
IPART	Independent Pricing and Regulatory Tribunal
MLTIFR	Major Lost Time Injury Frequency Rate – frequency of major or severe lost time injuries per million hours worked
SAIDI	System Average Incident Duration Index – average total minutes a customer is without power in a year
SAPS	Stand Alone Power System
SCFR	Serious Claim Frequency Rate – number of accepted workers compensation claims, for an incapacity, that results in a total absence from work of one work week or more (i.e. 40 hrs) per million hours worked
SF6	Sulphur Hexafluoride
TCFD	Task Force on Climate-related Financial Disclosure
TRIFR	Total Recordable Injury Frequency Rate – calculated as the number of recordable injuries per million hours worked

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