# **KEEPING YOU UPDATED**

We will continue to keep you updated on our progress with our 5-year CPP investment programme in our Annual Delivery Reports. You can find the full Annual Delivery Report on our website www.auroraenergy.co.nz/ disclosures/delivering-our-cpp

#### **ANY QUESTIONS? GET IN TOUCH!**



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To access our free complaints process, please email us using the enquiry form on our website www.auroraenergy.co.nz/contact

If you ever have a complaint we can't resolve, you can contact Utilities Disputes, a free and independent dispute resolution service on 0800 22 33 40 or go to www.utilitiesdisputes.co.nz





# WHO IS ^x' AURORA ENERGY?

Aurora Energy owns and operates the electricity network in Dunedin, Central Otago/Wānaka and Queenstown Lakes.

We own the poles, lines and equipment that distribute electricity from Transpower's national grid to more than 93,500 homes, farms and businesses

We are responsible for maintaining and renewing infrastructure.

The safety and reliability of electricity supply is a critical driver across all elements of our business.

OUR NETWORK AND THE COMMUNITIES WE SUPPLY



- **Grid Exit Points**
- Dunedin Pricing Region
- Queenstown Pricing Region
- Central Otago Pricing Region

# HOW ELECTRICITY GETS **TO YOU**

# **GENERATION**

Power stations generate electricity from water, wind, geothermal gas and coal



# **TRANSMISSION**

Extra high voltage electricity is moved across Transpower's national grid in bulk

# **AURORA ENERGY**



STEP.

# **DISTRIBUTION**

Aurora Energy takes electricity from the national grid and lowers the high voltage electricity for local use



# **DISTRIBUTION**

Aurora Energy distributes the electricity to your place via powerlines and underground cables



# **RETAILERS**

Retailers sell electricity to customers and deal directly with you



# **CUSTOMERS**

Electricity is used at your place



# KIA ORA KOUTOU

# WELCOME FROM OUR CHIEF EXECUTIVE

As one of the largest electricity distributors in New Zealand, we play an important role in supplying you, with reliable electricity now, as well as ensuring we are ready to enable the energy future of our communities. A robust and efficient electricity network is central to this rapidly changing future and that's why our investment programme is so important.

We have made a commitment to deliver on our promise to customers that we would upgrade and renew the network; and we've made excellent progress on our major \$563 million work programme across the region. Over the past 12 months we've invested \$127 million across Dunedin, Central Otago/Wānaka and Queenstown Lakes, including \$81 million on network-related capital expenditure and \$46 million on operational expenditure such as routine inspections and maintenance, vegetation management, systems operation and network support.

Maintaining the health of the existing network asset is essential, but we must also upgrade the network and position it for the future. The drive for decarbonisation and a more sustainable way of life means we must be ready to invest at the right time. We know electricity users want an affordable energy supply that supports their changing lifestyles and energy needs. A robust and modern network will provide value to customers by enabling how and when electricity is used to support decarbonisation.

We are collaborating with others in the industry as there are obvious benefits in pooling our resources and planning to help drive better outcomes for customers. Aurora Energy is leading the sector thinking in some areas, an example being our solar energy non-network peak management work in Upper Clutha.

We have more work to do to refurbish and upgrade the network, but we are on track with our programme thanks to the dedicated team at Aurora Energy. We would like to take this opportunity to thank our contracting partners, Connetics, Delta and Unison, who are the feet on the ground and the face of Aurora Energy in the community. We appreciate their dedication to work in sometimes difficult conditions, in all weather and at all hours of the day and night. Thank you for keeping the lights on over 99.9% of the time.

The following pages provide a summary of the network investment we've undertaken last year (1 April 2021 to 31 March 2022) and we are pleased to present a summary of our progress against our ambitious work programme.

You can find the full Annual Delivery Report and information about our customised price-quality path (CPP) on the Aurora Energy website: www.auroraenergy.co.nz/disclosures/delivering-our-cpp



Richard Fletcher
Chief Executive

Replaced

74 KM of HIGH

**VOLTAGE** 

(reducing the safety backlog risk by

approximately 20%)

# OUR ANNUAL DELIVERY REPORT CUSTOMER

**SUMMARY** 

# 1 Regulatory year at a glance

# 2 Snapshot of major projects

- Dunedin
- Central Otago/ Wānaka
- Queenstown Lakes

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- Notifying and updating customers on outages
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# **REGULATORY YEAR**AT A GLANCE\*

We are pleased with the significant progress we made on asset renewal and maintenance work across the network, to reduce the level of safety risk. Safety remains our number one priority.



\$46 M spent on operational expenditure



Inspected almost 12,000 of the 53,674 poles

on the network

Replaced more than

1,400 POWER POLES

line on our network, we undertook vegetation INSPECTIONS ON 51% of the network (1,953 km) and MAINTAINED VEGETATION ON 26% of the network (983 km)

Of the 3.843 km of overhead



spent on networkrelated capital expenditure

9 of our 39 zone
SUBSTATIONS

Completed scheduled

maintenance at

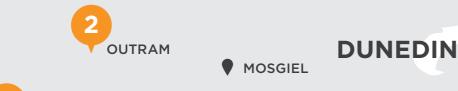


Replaced 88 CAST IRON POTHEADS

(the highest number in a single year to date)

# SNAPSHOT OF MAJOR PROJECTS

Here are some of the highlights delivered during RY22\*





# 1 WAIPORI HV LINE

In April 2021, we finished replacing an ageing line with new high voltage lines and steel poles along the Waipori line between Outram and Berwick. On average, for every three poles removed, one taller pole replaced them – this has increased the line span and benefits both safety for motorists and the visual appearance of the area.

# **2 OUTRAM** ZONE SUBSTATION

We upgraded the Outram zone substation and replaced existing transformers and associated equipment, which had reached their end of life, with larger and higher-capacity transformer and equipment. The upgrades will benefit customers by strengthening the electricity supply to Outram and the Taieri Plain (including Dunedin Airport) and catering to future growth in the area.



# 3 HARBOUR CROSSING PROJECT

In September 2021, we completed the Harbour Crossing project, which involved removing six lattice towers and overhead lines between Port Chalmers and Portobello and replacing them with new submarine cables. This once-in-a-lifetime project has wider benefits for shipping, tourism and wildlife. We are working with community groups to replant the areas with native plants and restore the natural beauty. This project won two awards at the New Zealand Energy Excellence Awards for Community Initiative of the Year and Network Initiative of the Year.

# 4 OTAGO PENINSULA LINE

We upgraded around 17 km of lines on the Otago Peninsula with new lines that are designed to withstand adverse weather and salt spray, which this part of the network is exposed to. We generated a local hall when there were multiple outages over a short timeframe, so residents could access kitchen and toilet facilities.

# SNAPSHOT OF MAJOR PROJECTS

Here are some of the highlights delivered during RY22\*

# 1 LAKE HĀWEA OVERHEAD LINE UPGRADE

We completed a bundled work programme on the network that supplies Albert Town, Camp Hill, Hāwea Flat, Lake Hāwea and Makarora in December 2021. This involved a ten hour power outage for over 1500 customers, which is a larger and longer outage than usual. Bundling the work for this project meant that the overall number of planned interruptions needed during the project were minimised.

# 2 ST BATHANS LINES UNDER-GROUNDED

Power lines on the St Bathans Loop Rd were under-grounded during the year, with ageing poles and lines removed. This restored the original look of the town, and some metal poles were retained for their historic value, at the community's request.

# 3 NEW OMAKAU ZONE SUBSTATION

Work started on a new zone substation in Omakau at a new site on State Highway 85. This project will benefit customers by increasing the reliability of electricity supply for Omakau and doubling the capacity of the substation, ensuring it can meet the demand growth of the community. The new zone substation will be fully automated, which means there will be more options during planned and unplanned outages, with four other ways to configure the network. There will be a new generator for emergency power supply for short periods of time, and a mobile substation parking bay for when the transformer is out of service will also reduce customer impact. The project is scheduled for completion in March 2023.



# 4) CLYDE OVERHEAD LINE UPGRADE

There has been significant headway with the alternative power supply for Clyde township and surrounding areas. In July 2021, a new 11 kV line between Alexandra and Clyde was installed, meaning the Alexandra network can take on Clyde township power during planned and unplanned outages. We also replaced 5.1 km of power lines and upgraded more than 30 poles in June 2021. An upgrade to create a ring within the Clyde township and provide a backup supply to the Dairy Creek irrigation scheme was also completed.



# 5 ROXBURGH UPGRADE

We replaced 1.3 km of power lines and 23 poles, and thank customers for their patience because residents and businesses had between one and five power outages while we completed this important piece of work.



# **6 ETTRICK** ZONE SUBSTATION

New switchgear and protection equipment was installed in the Ettrick zone substation in 2021. The addition of 33 kV switchgear, replacing 11 kV switchgear and upgrading the substation's pole structures and protection systems, has improved the security of electricity supply to the community. The complex project had a small window for work to be completed and a confined space to work in.



**GLENORCHY** 

ARROWTOWN

QUEENSTOWN •

# SNAPSHOT OF **MAJOR PROJECTS**

Here are some of the highlights delivered during RY22\*

# **GLENORCHY** UPGRADE

We attended a community meeting in Glenorchy in November 2021 to engage with residents early about an upcoming large programme of work, which included replacing more than 100 power poles and 25 cross arms, realigning power poles in Mid Rivers, installing a new 11 kV air break switch in Rees Valley, as well as upgrading the new voltage regulator site in Glenorchy. Work began in and around the Glenorchy township in December and is estimated to be completed in RY23.

# 2 ARROWTOWN RING UPGRADE

Work on the \$6m Arrowtown ring upgrade (a new 9 km cable route) commenced and is ahead of schedule. Currently, Arrowtown, Coronet Peak, Dalefield, Arthurs Point and Remarkables are supplied by two power lines that share the load between them, with limited access to an alternative electricity supply if a fault occurs. These planned improvements include a new 33 kV underground cable, which will enhance security and reliability of our services to Arrowtown. This is because the new cable can support the entire Arrowtown area load and allow any faults to be isolated and repaired with minimal power outages. This project will run over several years and is estimated to be completed in 2024.

# **IMPROVING PRACTICES**

Our Development Plan outlined some systems and processes we aim to improve over the 5-year CPP investment period and how these benefits you, our customers.

Here is how we're improving our practices and a self-assessment rating on a scale of 1 to 5 on how well we are tracking so far.

We will continue to report on these each year of the investment period, in our Annual Delivery Reports.

# What do our ratings mean?

- Not Started
- Not Achieved
- Partially Achieved
- Largely Achieved
- Achieved / Exceeded Plan

See Section 4 of our full Annual Delivery Report for further information on the ratings for our improvement initiatives.

# **HELPING CUSTOMERS UNDERSTAND ELECTRICITY PRICING**

# RATING - 5

We are looking at ways to help customers understand electricity pricing. The way electricity pricing is set is changing, and we want customers to understand these changes and what it means for them.

#### WHAT WE DELIVERED

We have made significant progress towards more cost-reflective pricing and taking steps to ensure that pricing is easier to understand. We published a pricing strategy and roadmap in April 2021; the pricing strategy includes initiatives to make electricity pricing simpler and improve the cost-reflectiveness of prices. As part of this we have:

- Refined cost allocations to pricing areas (Dunedin, Central Otago/ Wānaka, Queenstown Lakes, and a small network in Te Anau)
- Developed a long-term cost methodology
- Published a cost of supply model
- Provided 'standard' customer examples for each pricing area

# **POWER** QUALITY

# RATING

Voltage limits are regulated to ensure satisfactory power quality levels can be achieved for the majority of customers, the majority of the time.

We are working on ways to improve how we keep tabs on the things that have an impact, and doing what we can to minimise them.

### WHAT WE DELIVERED

We developed our low voltage network practices in several ways and we:

- Improved our power quality enquiry process
- Invested in power quality monitoring equipment
- Improved internal documentation, including our Voltage Control Standard
- Improved our analysis tools

We are currently transitioning from reactive to enhanced monitoring, and aim to be predicting voltage on the network by RY26.

# **CUSTOMER CHARTER** AND COMPENSATION

Customers are at the heart of our business. and we are committed to building a more customer-focused organisation that provides genuine benefits for customers.

Our customer charter outlines what we are committed to, and how customers will be compensated if things do not go to plan.

#### WHAT WE DELIVERED

We developed our customer charter engagement by:

- Planning for charter consultation in
- Undertaking an internal review of what currently is, and is not working
- Carrying out benchmark surveying, which will run every year during the CPP period



# **OUTAGE MANAGEMENT**

# **RATING** -

To deliver on our network renewal programme. we will need more planned power outages.

We are aware that no time is perfect for the power to go off, so we are committed to improving the way we plan, manage and communicate outages.

#### WHAT WE DELIVERED

We implemented several outage planning initiatives, including:

- Developing an outage variation reporting framework and a new cancellation and deferral process
- Regular performance discussions with our contractors
- A new contact centre, Telnet, for after hours and weekend customer service
- Developing customer outage guidelines, to be finalised and implemented as part of a new planned outage approval process (also in development) in RY23
- Implementation of our new Outage Management System (OMS) began, which will result in better quality assurance and, in the future, better information for customers
- Bundled work programmes to reduce the number of planned outages that a customer would experience to perform the same work

# **QUALITY** DATA

# RATING



Having accurate and reliable data about our assets is a necessity to deliver a reliable power supply.

With good quality data being made available to the business, we can continue improving our risk framework, budgeting and forward planning.

### WHAT WE DELIVERED

We progressed several data quality initiatives and we:

- Introduced a business-wide data strategy to become 'digital first'
- Implemented a new asset management software solution, Maximo, and migrated static data. This will help us make more informed decisions about our maintenance plans
- Developed business intelligence reports to ensure asset data in our Geographical Information System (GIS) is correct
- Introduced a methodology to better estimate data backlogs and put further controls in place
- Selected a new platform to share outage information with our call centre. The first integration between our system and the call centre's system is underway

# **ASSET** MANAGEMENT AND SAFETY RISK

#### RATING FOR PRACTICES. **AND PROCESSES**

# **RATING FOR IDENTIFYING AND REDUCING SAFETY RISK**

Continuous improvement in asset management is critical for our business to operate successfully in a changing environment, to keep up with customers' evolving expectations and enable the energy future of our communities.

By building on our existing asset management capability, we can make the right investment on the right assets at the right time.

# WHAT WE DELIVERED

We began work on our strategy and frameworks and we:

- Developed our risk management framework for our safety-critical assets based on their exposure to the public
- Improved our data analysis by linking assets with our reporting to allow better evaluation of our asset criticality
- Disclosed our Safety Delivery Plan

# **COST** ESTIMATION

# **RATING**

5

Cost estimation informs our asset management decisions, and regulated revenue requirements and cashflow projections inform our budgets. This means it is important for cost estimation to be as accurate as possible.

# WHAT WE DELIVERED

We laid the foundations for several cost estimation initiatives by:

- Analysing our current budgeting of major project work to help us develop a cost estimation tool
- Establishing a framework to monitor project unit rates annually, which will result in more precise delivery budgets
- Agreeing contract unit rates and fixed prices with our contractors for volumetric work



# QUALITY **ASSURANCE**

# RATING - 5

When we carry out work on our network, we want to know it's always carried out as efficiently and effectively as possible and meets regulatory standards.

Our increased work programme throughout the CPP investment period means it is even more important to have robust quality assurance processes and resources in place.

# WHAT WE DELIVERED

We implemented several quality assurance improvements, including:

- Establishing a project team to improve project workflow processes
- Standardising our project management process and developing templates
- Reviewing our project management software and completing gap analysis to identify improvement areas
- Integrating our project management systems across the business
- Developing an internal reporting structure

We have also focused on staff development and training, and reviewed resourcing to build our team capability.



# ENGAGING WITH

# NOTIFYING AND UPDATING CUSTOMERS ON OUTAGES

All planned and unplanned power outages are now updated on our website 24/7, with unplanned outages also updated on our Facebook page between 8am and 9pm.

Our previous after hours call centre did not provide online updates, so customers now have better access to information across the channels they prefer.

We rate ourselves 3 out of 5 (usually meets expectations\*) for this initiative. \* See Section 5 of our full report for further information on how we came to this rating and rating system.

# **CUSTOMER CHARTER** AND COMPENSATION

Our current charter has provided a positive step toward a more customer-centric organisation, however we feel it could be clearer and more engaging.

Therefore, we have developed a plan to consult with customers and develop our new "Customer Commitments" document.

You can find more information on our charter performance and compensation payments for RY22 in our full report.

# **PRICING METHODOLOGY**

We have been proactive in engaging with our customers about pricing and are happy with the level of engagement during our pricing consultation at the end of 2021. The public feedback helped our decision-making and because of the consultation we decided to:

- Continue with our pricing strategy
- Maintain our pricing areas
- 🕢 Adopt separate values of our assets to allocate capital costs to regional pricing areas
- Retain the level of detail in our published price schedules

You can find the pricing consultation report on our website www.auroraenergy.co.nz/disclosures/pricing/pricing-strategy-and-roadmap