WANAKA ELECTRICITY SUPPLY UPGRADE

Aurora Energy is carrying out a major upgrade to electricity supply for Wanaka. We're building a new switching substation to improve the reliability of electricity supplies to homes, farms and businesses. The project includes building a new substation here on the corner of Riverbank and Ballantyne Roads, installing a new underground cable to connect to the existing Wanaka substation and upgrading the overhead line along Riverbank Road.

How is electricity supplied to Wanaka?

Electricity is transported from generation sources (such as hydro power stations and wind farms), across the national grid transmission system to the local distribution network, then on to consumers. To supply power to Wanaka and the Upper Clutha, including the Cardrona Valley, Aurora Energy takes high voltage electricity from the Cromwell substation to the Wanaka substation. There it is converted from 66kV to a lower voltage of 33kV to supply the Camp Hill and Cardrona substations and to 11kV to supply Wanaka locally. The power is distributed out around the area to local transformers that convert it further to 230 volts for use in the home, on farm and in businesses.

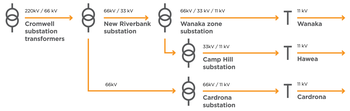
Once the new Riverbank Road substation is complete, it will supply the Wanaka substation at 66kV. The Wanaka substation will continue to supply the Camp Hill substation at 33kV and the Wanaka area at 11kV.

Why the upgrade is needed

Electricity demand in Wanaka has increased in line with its growing population. We need to increase the capacity of the network to continue to deliver reliable electricity to all customers and connect supply to new residential housing and businesses. The Wanaka Upgrade is part of Aurora Energy's overall network development programme. Over the next decade, Aurora Energy will be investing more than $230m on major network renewal projects in the Queenstown Lakes and Central Otago areas to enhance reliability and cater for growth.

NOW

AFTER



MORE INFORMATION AND FEEDBACK

We welcome your feedback.
For more information, please contact Aurora Energy at **0800 22 00 05**
or go to **www.auroraenergy.co.nz**

Project manager Craig Thompson
can be contacted on **0800 22 00 05**
or **craig.thompson@auroraenergy.co.nz**

UPGRADE PROJECTS

The Wanaka Upgrade consists of three projects over eight months, constructed from October 2017 to May 2018. The combined project value is estimated at $9 million.

1. Riverbank Road switching station

PLANNED CONSTRUCTION
OCTOBER 2017 – MARCH 2018

Aurora Energy is building a new switching substation on the corner of Riverbank and Ballantyne Roads, opposite Wanaka Wastebusters.

The new substation will take 66,000 volt (or 66kV) electricity from the national grid at Cromwell and control the supply to the Wanaka and Cardrona substations. The new substation will provide a hub for the high voltage supply into Wanaka and surrounding areas, will add capacity to the existing Wanaka substation and be able to reroute supply in the event of a fault.

Queenstown Lakes District Council approved the designation for the new substation in 2013.

Traffic management will be in place during construction. No power outages are required for this work.

2. New underground cable Ballantyne Road to Wanaka substation (66 and 11kV)

PLANNED CONSTRUCTION
OCTOBER 2017 - FEBRUARY 2018

From the new Riverbank road substation, a new 66kV underground cable will be installed along Ballantyne Road to the Wanaka substation. The underground cable will be installed in a trench and then back filled with the existing surface restored.

Traffic management will be in place temporarily when we work along Ballantyne Road.

3. Overhead line upgrade along Riverbank Road (66kV)

PLANNED CONSTRUCTION
OCTOBER 2017 – MARCH 2018

We're upgrading the overhead power lines along the west side of Riverbank Road between Ballantyne Road and State Highway 6 from 33,000 volts (or 33kV) to 66,000 volts (or 66kV). The existing 16 poles will be replaced by nine taller poles of approximately 16 metres in height. The extra height is needed to provide safe clearance for the higher voltage lines. We will also convert the existing overhead service lines that cross over the road to supply houses on the east side of the road to underground cables.

We considered installing the new 66kV supply underground. Due to the type of soil in Riverbank Road, a high voltage underground cable in this location could not be adequately protected against the risk of lightning strike, so an overhead line was the only suitable option.

The route and design of the 66kV overhead line was selected taking into account safety, environmental, maintenance and security of supply requirements. The 1.2 kilometre line will run north along Riverbank Road from the intersection at Ballantyne Road.

The existing power poles at the intersection of Ballantyne and Riverbank Roads, will be moved and new poles will be installed to guide the overhead lines into the new substation. In some locations, the existing overhead lines will have an additional conductor installed above to protect the line against lightning strike. Once the new Riverbank Road Substation is commissioned, the existing overhead line through the Three Parks development will be removed.

Traffic management will be in place temporarily when we work along Riverbank Road. There will be short-duration outages to the residents during the upgrade. You will be individually notified in advance of any planned outages via your electricity retailer.

KEY

- Existing 66kV or 11kV overhead line
- New 66kV overhead line
- New substation

Will construction affect residents?

There will be minimal disruption to residents during construction. Traffic management will be in place at some work sites to ensure the safety of you and our contractors. Construction will involve trench digging and cable-laying, plus work on overhead lines including installing new poles along Riverbank Road. Individual property owners will be notified if construction work is likely to directly affect them.

What electricity outages are planned?

For the safety of our contractors, we'll need to turn the power off when we switch the 11kV and 33kV supply from the existing overhead lines to the new underground cables. The power outage will affect customers on Riverbank Road and in Hawea and surrounding areas and is expected to last less than four hours in March/April 2018.

Closer to the time of planned outage, you will receive individual notification via your electricity retailer advising the specific date and time. If you have any concerns regarding this outage, please contact Aurora Energy on **0800 22 00 05**.

Thank you

We thank the local community for their understanding as we carry out this improvement work and apologise in advance for any inconvenience and disruption that may be caused.

Indicative project timeline

	MAY 2017	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN 2018	FEB	MAR	APR	MAY
1. Riverbank Road switching substation	Detailed design					Civil and electrical works						Commissioning	
2. Overhead line Riverbank Road	Detailed design						Pole installation						
3. Underground cable Ballantyne Road					Trenching				Cable installation				