Aurora ENERGY

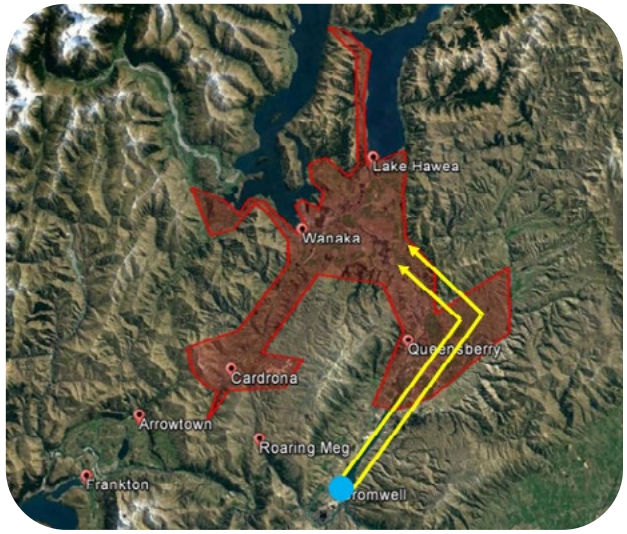
CASE STUDY

ena electricity networks association

Aurora Energy's Upper Clutha project

Project

Aurora Energy Upper Clutha project: Seek non-network solutions to reliably meet growing peak demand in the wider Wānaka area.



Objective

Promote the development and expansion of 'flexibility services provider' roles to manage distributed energy resources for electricity industry participants and customers.

Benefits

Staged tactical solutions enable deferral of costly network upgrades for up to three years. Customers benefit from flexible electricity consumption to optimise pricing and improved household security of supply from battery storage.

What is the problem?

The Upper Clutha area on Aurora Energy's network is experiencing significant growth in connections. It has summer-peaking pressures due to both agricultural/horticultural irrigation and tourism, and winter-peaking pressures due to ski fields and the cold climate.

Costly upgrades of network infrastructure would be necessary over the next three to five years if no other solutions are found to manage demand on the network.

What is the solution that is being put into place?

Aurora Energy decided to set up the business infrastructure that would allow the development of a market for non-network support solutions provided by third parties that will allow a deferral of otherwise required investment in network upgrades.

What has been done so far?

- Establishing business processes – procurement arrangements, commercial contracts and pricing agreements in place
- First third-party supplier agreement in place (solarZero) and households being signed up to its distributed energy resources service, whereby households are provided with solar PV and batteries as a service (rather than customers purchasing the equipment themselves)
- In 2021, solarZero began signing households up, ready for installation to begin later in the year.
- In March 2022, Aurora Energy launched an Open Call (ROI/RFP) process to invite distributed energy resources providers, owners, flexibility traders, and new market entrants to provide non-network solutions.

Battery storage is a critical part of a non-network, flexible distributed generation solution.

Expected benefits

- If several hundred households and businesses sign up there could be at least a year's deferral of required upgrades
- If approximately 1000 households and businesses sign up to the solution, there is a potential for a three-year deferral of required network upgrades
- With a number of tactical non-network solutions in place, there is potential for a semi-permanent deferral of the need to upgrade network infrastructure
- Distributed energy sources can be offered as 'flexibility services' to other industry participants, enabling value-stacking to occur.
- The emergence of a new distribution network market, delivering cost-effective solutions for customers.

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