Victoria’s network performance and reliability achievements 2018-19

The Victorian Government works closely with Victoria’s Distribution Network Service Providers to improve community engagement and support power system reliability.

### CITIPOWER / POWERCOR
- Overloaded transformers identified via AMI analytics and remedial works completed.
- Engaged up to 1,000 customers and made over 10 megawatt hours (MWh) available during peak times through the Good Grid program in Melbourne’s northern suburbs, West Gippsland and Clyde North.
- Identified load control, voluntary demand response programs.
- Building relationships with embedded generators in western Melbourne to provide contingency support.
- New demand forecasting tool integrated into operational systems.
- Improving forecasting outcomes using Advanced Metering Infrastructure (AMI) data and leading indicators.
- Overloaded transformers identified via AMI analytics and remedial works completed.
- Identifying unbalanced low voltage circuits through a phase balancing analytics trial.
- Delivering a program to effectively detect, identify and restore faults.
- Overloaded transformers identified via AMI analytics and remedial works completed.

### AUSNET SERVICES
- Overloaded transformers identified via AMI analytics and remedial works completed.
- Engaged up to 1,000 customers and made over 10 megawatt hours (MWh) available during peak times through the Good Grid program in Melbourne’s northern suburbs, West Gippsland and Clyde North.
- Shifting usage by 35-55 MW through the Critical Peak Demand tariff program.
- Working with customers to shift use of up to 18 MW across 40 substations.
- Scheduling generation at power stations in Bainsdale (20-40 MW) and Euroa (2 MW) to support the reliability of the network.
- Improved demand forecasting to plan capacity upgrades for the 2018-19 summer.
- Improving forecasting outcomes using AMI data.
- Tested a prototype low voltage model feeder in a high growth region of the network.
- Undertaking enhancements to support full network modelling capability.
- Developed an algorithm to identify overloaded transformers and commenced a remedial works program.
- Announced the Mallacoota Grid Energy Storage System initiative, which is forecast to improve reliability by around 90 per cent for 1,000 customers on the fringe of the grid.
- Ongoing demand management and power quality testing through the Mooroolbark Mini Grid Project, which involves powering 14 homes in a suburban street with a combination of solar panels, 10 kilowatt hour (kWh) storage batteries and the main power grid.

### UNITED ENERGY
- Solar Storage Program trial at 42 residences across 14 distribution substations.
- Summer Savers Program, saving up to 1 MW across 138 distribution substations.
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- Community Grid Project in the Mornington Peninsula, saving 1.73 MW.
- Contracted approximately 0.8 MW for contingency support from commercial and industrial customers in the Mornington Peninsula.
- 30 MW of voltage regulation across 47 zone substations funded (ARENA-AEMO Demand Response Program).
- Trialling the use of AMI analytics to monitor and manage load on 26 low voltage circuits.
- Deployed 40 kW of photovoltaic panels with smart inverters to manage eight residences across two substations through the Networks Renewed trial.
- Overloaded transformers identified via AMI analytics and remedial works completed.
- Identifying load control, voluntary supply schemes and grid sized battery storage solutions.

### JEMENA
- Community education sessions to increase awareness of power system stress during summer, grid stress, tips to keep cool and how to reduce bills.
- 2 MW contracted with an energy aggregator in the Flemington zone distribution substation until the end of March 2019.
- Demand reduction using voltage management pilot at Coburg South substation, with near real time AMI data used to manage ‘at risk’ customers.
- Improving load forecasting using AMI data and used the forecast data to prioritise Jemena’s Distribution Substation Augmentation capital expenditure.
- Identify low voltage imbalances across the network using AMI data analytics.
- Development of a Distributed Energy Resources management system and platform as part of the real time system and Supervisory Control and Data Acquisition (SCADA) upgrade project.
- Design and integration of a Distributed Energy Resources management system and platform.
If you are interested in learning more about any of the programs, please visit the relevant Distribution Network Service Provider’s website:

- **AusNet Services** [ausnetservices.com.au](http://ausnetservices.com.au)
- **Powercor** [powercor.com.au](http://powercor.com.au)
- **CitiPower** [citipower.com.au](http://citipower.com.au)

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