

Case study GRID STABILISATION

Client
Australian DNSP*

Location
NSW, Australia

Worked with
Replacement Planning Engineer,
Demand Management

Problem and challenges

Australia has the highest uptake of solar globally. As of 31 December 2020, Clean Energy Regulator data shows that more than 2.68 million rooftop solar power systems have been installed in Australia, meaning one in four homes have solar panels on their roof. Our client was observing threats to network stability, a symptom of high demand in the evening and excess solar generation at certain times of the year. *Identity withheld for privacy reasons.

Solution

- What**
- Enable monitoring and control of residential batteries on the network, including forecasting load, generation and battery activity
 - Enable these batteries to be aggregated into a VPP
 - Fast reporting of assessing 5 minute telemetry, including voltage, frequency, solar and battery power
 - Dynamic rebalancing of dispatch commands to create smooth, sustained charging and discharging from the grid

- How**
- DNSP used Evergen **Intelligent Control** and our **DERMS platform**, as well as an external API for reporting

- Outcomes**
- Improved visibility of DER and impacts on the grid
 - New capability to create stabilising flows of electricity using aggregated residential storage
 - Potential avoidance of future network enhancement costs

