

Case study

# ACCESS - DYNAMIC OPERATING ENVELOPES

**Client**  
Australian DNSP\*

**Location**  
NSW, Australia

**Worked with**  
Head of Innovation/team

## Problem and challenges

Evergen and a number of DNSPs are working with the Australian Renewable Energy Agency (ARENA) evolve DER project to increase the network hosting capacity of distributed energy resources (DER) by maximising their participation in energy, ancillary and network service markets, while ensuring the secure technical limits of the electricity networks are not breached. \*Identity withheld for privacy reasons

## Solution

- What**
- Enable networks to influence solar exports in specific by publishing operating envelopes
  - Optimise battery charge and discharge profiles with respect to operating envelopes that change each day

- How**
- DNSP used Evergen **Intelligent Control** software and an external API for reporting
  - Recruit households to participate
  - Intelligent Control receives operating envelopes each day
  - Intelligent Control shapes battery profile according to operating envelopes

- Outcomes**
- The evolve DER project shows how more customers can connect solar PV and storage to the distribution network
  - Avoidance of curtailment
  - Support of “no refusals” policy to new solar installations



Evergen has the capability to receive operating envelopes a day in advance from the DNSP, and optimise batteries to keep the site within the envelope at least cost to the customer.