

## Project outline

The aim of the Solar Analytics Customer Devices Enablement Renewables (SACDER) project was to develop and deploy several prototype devices that could assist with a range of network issues, including:

- Providing increased visibility and control of solar PV and customer block loads;
- Investigating how a limited deployment may provide greater accuracy for state estimation at a lower cost than some current data streams;
- Explore general load and renewables control via a customer side device; and
- Increasing the uptake of load control tariffs in non-domestic premises.

The key project partner from a technology perspective was Solar Analytics. The main focus of the project was the deployment and testing of the load control tariff notification system. This element of the project involved adding the functionality to the standard Solar Analytics monitoring system to be able to detect a supply interruption at the premises instigated under a load control tariff.

The trial was conducted at ten sites with irrigation customers who were already participating in an Ergon Energy Network trial and utilising a load control tariff. The use of load control tariffs in non-domestic premises was being trialled in response to key stakeholders wishing to explore alternative tariff options. Customers participating in the trial

had expressed interest in load control tariffs, but also wished to be advised when electricity supply was interrupted and returned, so they could manage their operations effectively.

## Project outcomes / findings

Key project findings are:

- The Solar Analytics device was installed in the customer's switchboard and configured to detect supply interruptions which would trigger a notification to be sent to the customer (via email). This element of the project was considered a success, as it accurately detected and advised supply interruptions to participants;
- The deployment of the devices and the notification provided us with a better understanding of how the dedicated load control channel created for these customers was operating in practice, and assisted in optimising the management of that load control channel;
- Customer feedback from the outage notification function was positive, however customers did indicate a strong desire for SMS or push notification, rather than emails.

Across Ergon Energy's network, the traditional use of load control tariffs in domestic premises has been to control equipment considered as 'invisible' load (equipment that can have electricity supply interrupted temporarily with minimal or no impact on the equipment or customers, for example hot water systems and pool pumps). We have recently added three new load control tariffs

for non-domestic customers who may consider using the tariffs for more 'visible' equipment.

Outage notification has proven to be an important feature to allow some business customers adjust to a load control tariff.

### Next steps

Following this DMIA funded trial, a tariff based outage notification which is triggered directly through the Ergon Energy Load Control System (LCS) has been trialled. The advantage of this approach is that it does not require hardware to be installed in a customer premise.

We have recently added three new load control tariffs for non-domestic customers who may consider using the tariffs for more 'visible' equipment. There are plans to expand this LCS based system to a business as usual offering where customers can opt to utilise one of the new load control tariffs.

Making these new load control tariffs more attractive to non-domestic customers will assist Ergon Energy Network and Energex to bolster the amount of load under control, particularly on non-urban feeders, helping to reduce long term network costs.

### More information

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- For general enquiries about DMIA, the group email can be provided: [demandmanagement@ergon.com.au](mailto:demandmanagement@ergon.com.au).



**Switchboard with load control signal receiver (bottom right) and Solar Analytics hardware (mid right) installed**