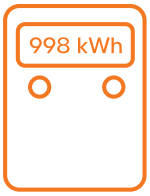
Emergency Solar Management Metering Solution Fact Sheet

How will solar systems be remotely managed and turned off?

There are two ways to remotely manage and turn off residential solar systems with an inverter capacity of 5kVA or less: API cloud solution or metering solution.

The choice of remote-management solution will be determined by undertaking a site assessment and an evaluation against the remote management criteria requirements.



Remote management solutions

1. **API cloud solution**

   The API cloud solution uses software integration such as an API (Application Programming Interface) – to remotely manage solar systems. In the required circumstances, the API will send an instruction to the inverter to be switched off and back on.

   For more details, please refer to Synergy's residential solar installation requirements.

2. **Metering solution**

   The metering solution uses Advanced Metering Infrastructure, commonly known as AMI, to remotely manage an inverter. The AMI meter receives instructions through Western Power's secure communications network to remotely manage the circuit to which the inverter is connected.

   The metering solution should only be selected where API cloud solution is not suitable or available.

   When selecting the metering solution, new wiring and components will need to be installed. These detailed requirements are set out in the Basic EG Connection Technical Requirements, with installation arrangements for various meter solution scenarios outlined in the Distribution Customer Connection Requirements.

   It is recommended a site inspection is performed, by a licensed qualified electrician, before selecting the meter solution. Unexpected site conditions may mean additional costs to the customer for the implementation of the metering solution.

The following should be considered when assessing the site for the metering solution:

What is the connection type?

- Is it a single-phase or three-phase connection?
- If a three-phase connection, it will require additional relay to disconnect the solar system.

Is there space on the switchboard; can the switchboard be modified?

The main switch will need to be replaced with a main switch circuit breaker that has an additional pole for isolating the supply from the auxiliary terminal to the meter.

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Where the metering solution is not feasible

There are instances where the metering solution will not be feasible:

Older style switchboards

Older style switchboards present issues for standard solar system installation as they require additional space to fit new wiring and components. This may result in an additional upgrade to the current switchboard.

Apartment blocks and unit developments

Switchboards in apartment and unit blocks present implementation issues as additional space will be required to fit new wiring and components in a switchboard shared with other customers. A new switchboard may be required to replace the existing switchboard, which may affect other customers located at the same site by way of additional costs.

Remote switchboards

A remote switchboard is where there is a solar system connected to a sub-board remote from the main switchboard with the Western Power meter.

Remote switchboards can usually be found on rural properties, strata developments, long metro driveways or metro residential areas where a meter box is found on the boundary fence.

To implement the metering solution on a remote switchboard an additional cable for the auxiliary function control will need to be wired to the sub-board to provide the switched signal to the inverter. This can be done however in some situations it may be expensive.

Detailed requirements are set out in the Basic EG Connection Technical Requirements with installation arrangements for various scenarios outlined in the Distribution Customer Connection Requirements and Emergency Solar Management – Metering Solution Wiring Training Video.

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