Enable Demand Response Mode for Zero Production for inverters with SetApp configuration – Application Note

This topic describes how to connect a Demand Response Enabling Device (DRED) to a SolarEdge inverter using the power reduction interface (PRI) and how to configure the system for DRM 0.

Version History

- Version 1.2, Nov 2023: Replaced term zero export with zero production. Added diagram of multiple inverters in DRED connection
- Version 1.1, 2020: Restructured procedures for connecting and configuring the DRED connection
- Version 1.0, 2016 Initial Release

Overview

The AS/NZS 4777.2 standard (Grid Connection of Energy Systems via Inverters – Inverter Requirements) contains the requirements related to grid stability and remote system control by the utility.

One of the requirements is to ensure the demand response mode for zero production (DRM 0). This reduces the power exported to grid to zero on command from the utility. This connects an external Demand Response Enabling Device (DRED) to the inverter power reduction interface (PRI). DRED allows inverters to produce optimal energy consumption during low solar production.

Requirements

When configured to country settings, the following components comply with Australia and New Zealand regulations:

- SolarEdge single phase inverters with firmware DSP1 version 1.210.1053 and higher
- SolarEdge three phase inverters with firmware DSP1 version 1.13.804 and higher

Connect DRED

1. Power off the system and open the inverter cover. For details, see [Three Phase Inverter with SetApp Configuration](#).
2. Thread the cable from the DRED through one of the glands at the bottom of the inverter.
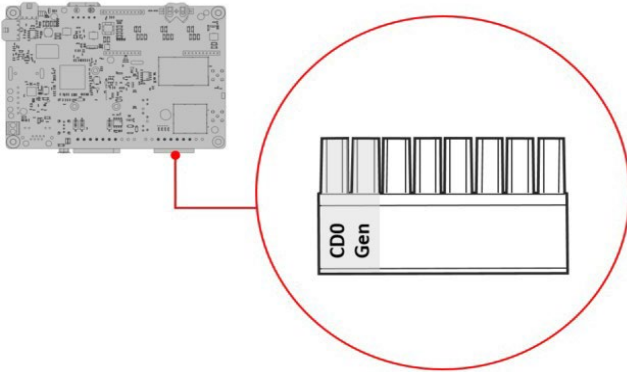
> **NOTE:**
>
> Use a cable with an external diameter of < 200 mil/5 mm.

3. Remove the connector from the PRI port on the communication board.

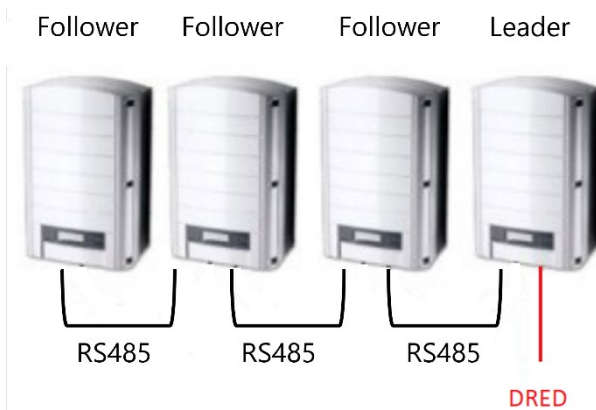4. Connect the cable to the connector with CD0 and Gen pins. Then insert the connector back into the port.

5. Close the inverter cover and repower the system. For details, see [Three Phase Inverter with SetApp Configuration](#).

> **NOTE**
> When using a leader–follower setup, only wire DRED to the leader. This setup transmits the action to all inverters with a connected/wired in a leader/follower configuration.

This image displays the leader/follower topology.

Configure DRED

1. Launch SetApp and connect to the inverter by scanning the QR code.
2. From the **Commissioning** screen, select **Power Control > Power Reduction Interface (RRCR) Mode > DRM**.