Emergency Backstop – Sungrow Inverters

Disclaimer

The material in this document has been prepared by Sungrow Australia Group Pty. Ltd. ABN 76 168 258 679 and is intended as a guideline to assist solar installers for troubleshooting. It is not a statement or advice on any of the Electrical or Solar Industry standards or guidelines. Please observe all OH&S regulations when working on Sungrow equipment.

Overview:

Many DNSP companies are introducing an *'Emergency Backstop'* function to all new inverter installations.

All the current Sungrow range is compatible with the Emergency Backstop and can be connected and configured easily.

The backstop is controlled via the iSolarCloud, and Sungrow inverters do not require any 3rd party equipment.

Connection to iSolarCloud is achieved via either Winet-S Dongle, EyeM4 Dongle, or Logger1000.

Minimum requirements in relation to Sungrow equipment:

The minimum requirements are

- A Sungrow energy meter.
- An internet connection.
- A communication device i.e. WiNet or EyeM4 dongle, or Logger1000.

Installer responsibilities:

The installer should undergo training with all the relevant DNSP's and understand their requirements i.e. registration etc.(Ensure Static Export limit is set and reported as per DNSP requirement*)

The installer must install and commission the Sungrow equipment in accordance with the requirements of the Emergency Backstop functionality.

Please note:

Sungrow system can set to zero export.

Sungrow system cannot control other 3rd party inverters.

Simplification:

To make things easier, first check the cross-reference table below and check against which category your installation fits into, then go to the numbered example.

Batteries and backup circuits are not shown for simplification.

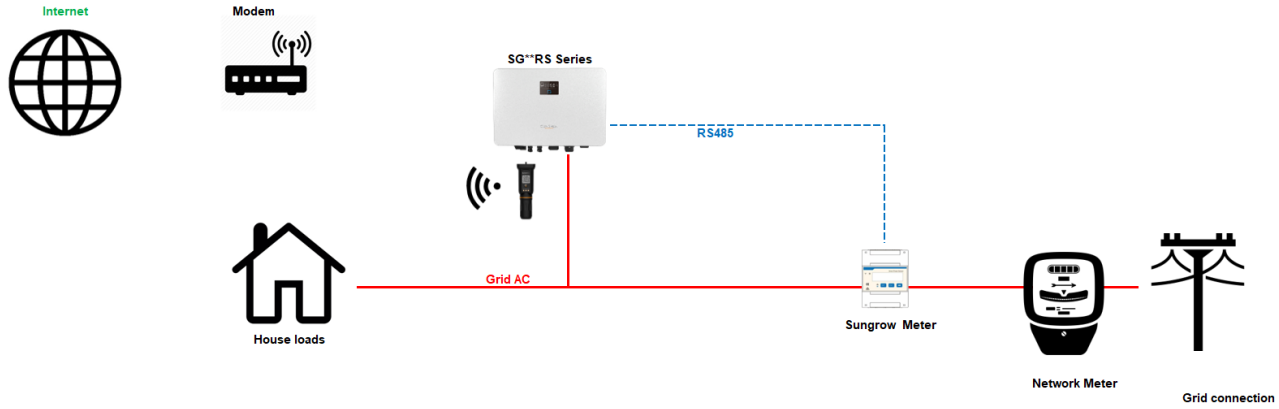
Example	Sungrow equipment	Meter requirement	Internet connection	Winet Dongle	Logger1000/ EyeM4
1	Single Hybrid or Grid-Connect	DTSU666-20 or S100	Mandatory	YES	No
2	Up to 3 SH5.0RS 'OR' SH6.0RS (must be same) Single-Phase Hybrids on same phase	DTSU666-20 or S100	Mandatory	YES	Use Parallel feature
3	Up to 5 identical SH5.0RT OR SH10RT Hybrid inverters (must be same inverters)	DTSU666-20 or DTSD1352	Mandatory	YES	Use Parallel feature
4	Multiple mixed Grid connected inverters (3-Phase)	DTSU666-20 or DTSD1352	Mandatory	NO	YES
5	Multiple mixed T series Hybrids (SH15T, SH20T, SH25T)	DTSU666-20 or DTSD1352	Mandatory	NO	Logger1000 only
6	Multiple mixed 3-Phase Grid connected inverters and T series Hybrids	DTSU666-20 or DTSD1352	Mandatory	NO	Logger1000 only

Wiring examples:

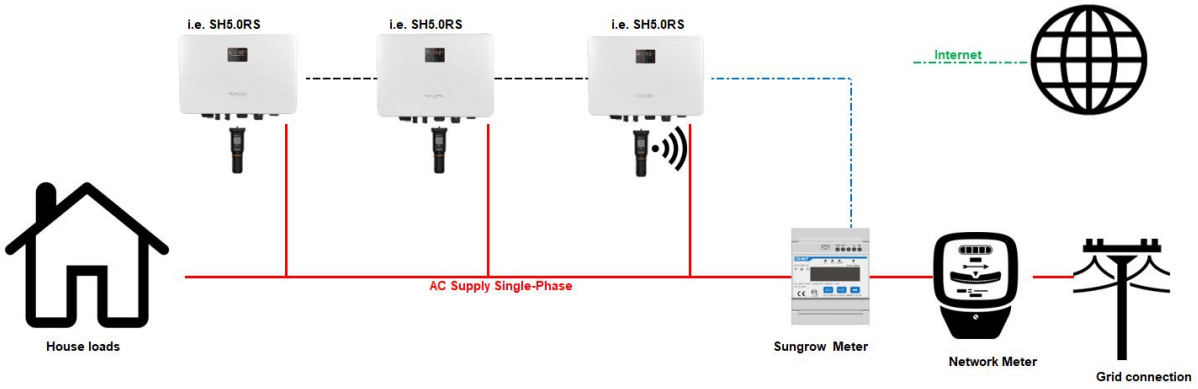
The below examples detail how to connect the communication cables etc, and the correct location of the meter.

Inverter communication is via RS485 and the correct RS485 must be used (i.e. shielded twisted pair minimum of 0.5mm).

Example 1 – One Inverter (Grid or Hybrid, Single or 3-Phase):



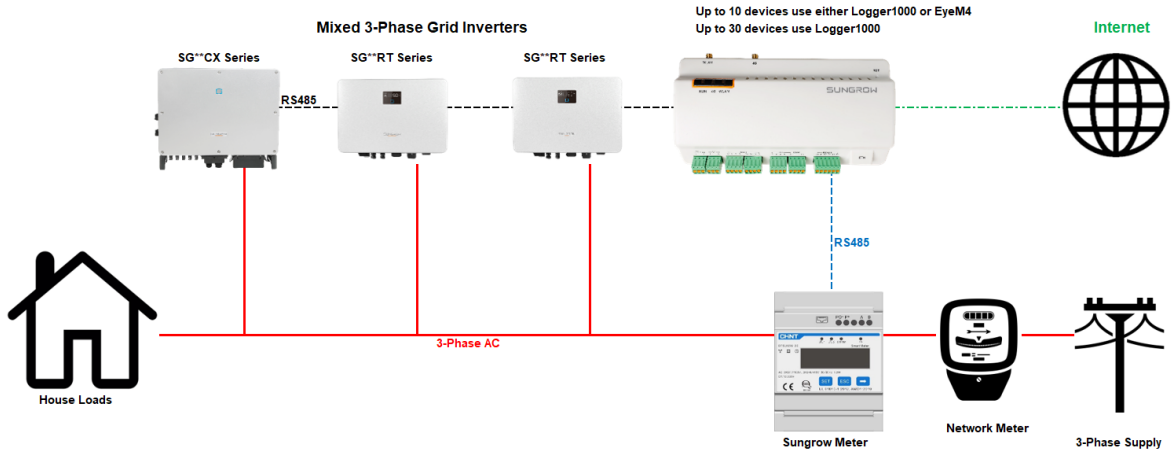
Example 2 – Up to 3 x SH5.0 or 6.0RS Hybrids (Must be on same phase):



Example 3 – Up to 5 x SH5.0 or 10RT hybrids:

As the above drawing, but up to 5 units.

Example 4 – Multiple or Mixed 3-Phase Grid tied inverters



Example 5 – Multiple T series Hybrids:

As above, but with up to 24 T series Inverters.

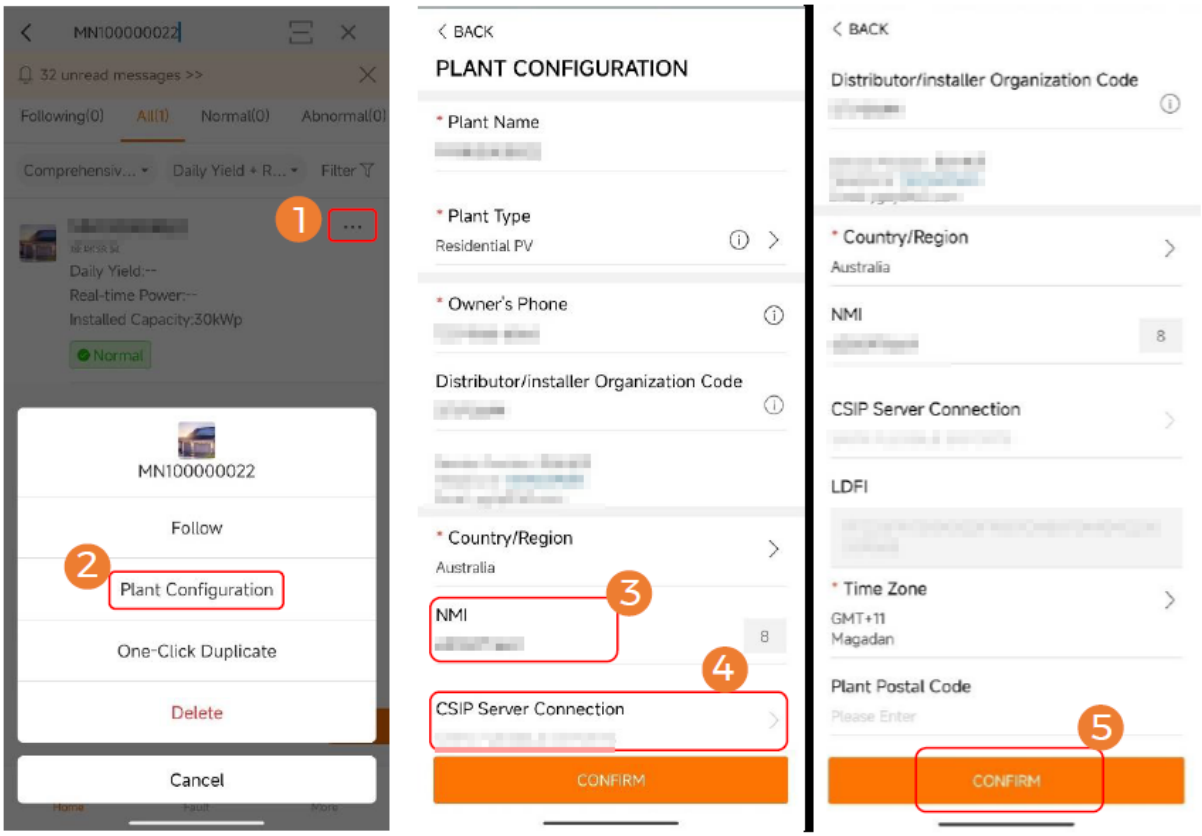
Example 6: Multiple CX series and T series Hybrids:

As above, with CX and T series Hybrids.

iSolarCloud settings (App):

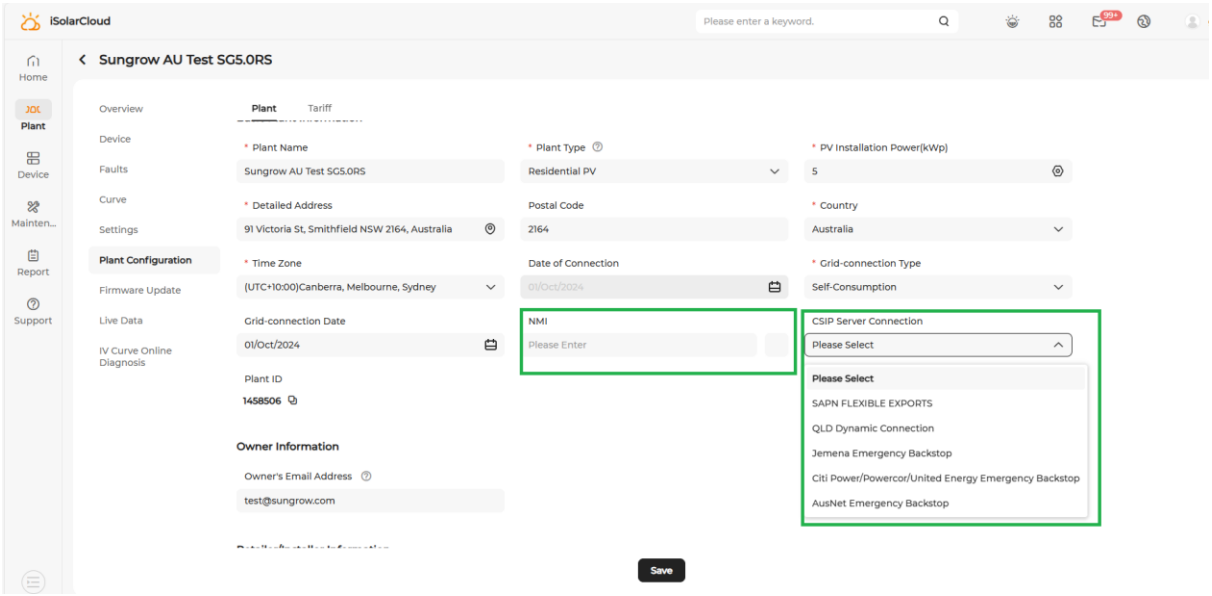
Please refer to DNSP instructions for registering the plant.

During the commissioning, the NMI and CSIP should be registered via the iSolarCloud App during commissioning.



**Ensure correct NMI, CSIP, and LDFI etc.*

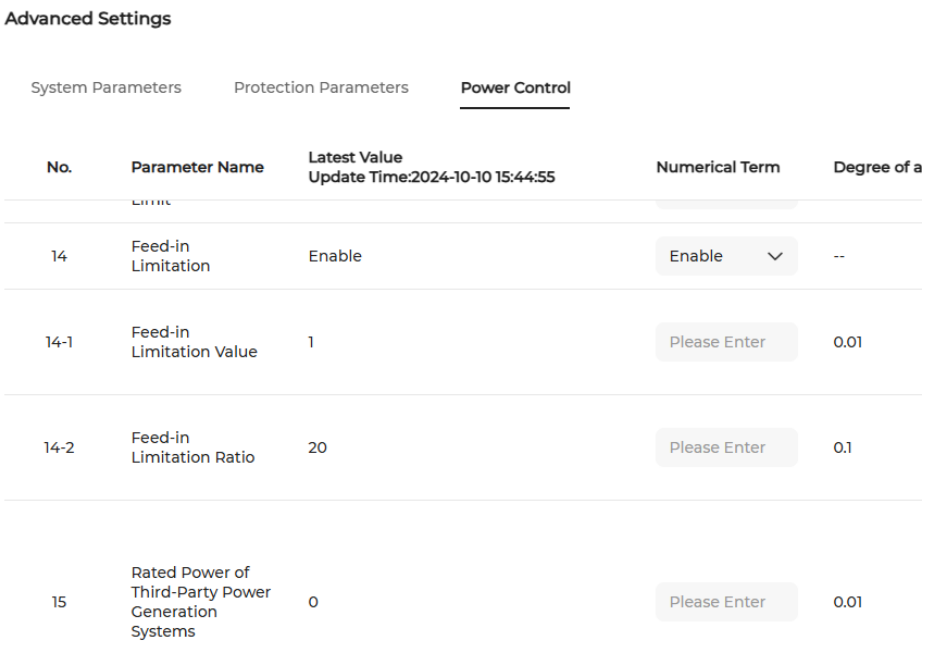
If setting done on the cloud:



**Low static export limit for specific DNSP:*

- Jemena – 0.5k VW
- PC/CP/UE – 0 kW
- Ausnet – 1 kW

Ausnet example (via iSolarCloud):



Links to further info:

Queensland Emergency Backstop info here.

Victoria Emergency Backstop info here.

SA Power Networks Flexible Exports info here.

Synergy info here.

If the issue still persists, please take photos testing on site and contact Sungrow Service Department on 1800 786 476 or email to service@sungrowpower.com.au.