

Sungrow Single-Phase Hybrid in Off-Grid: Additional settings for Generator V1.0

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.

Applicability:

SH5.0RS, SH6.0RS (Please refer to Sungrow re. the SH10RS)

The above Hybrid Inverters can be connected to a backup Generator providing:

- The most recent firmware for dongle Inverter and battery is installed.
- There is enough generator capacity to supply loads and charge the battery.
- The designer is responsible for generator selection and system design.

Step1: Standard Off-Grid install and commission.

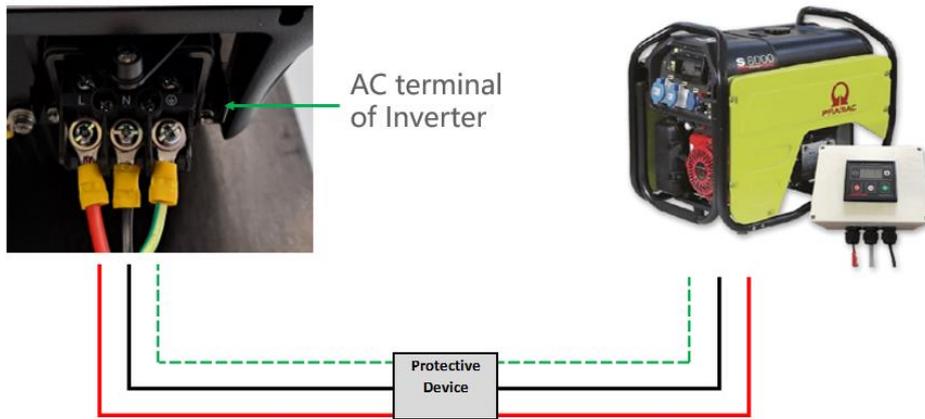
Install and commission the system in Off-Grid mode as would be 'without' connecting the generator, and test.

The test shall comprise of:

- Supply loads from PV
- Supply loads from battery
- Supply loads/charge battery from PV
- Ensure system is on iSolarCloud

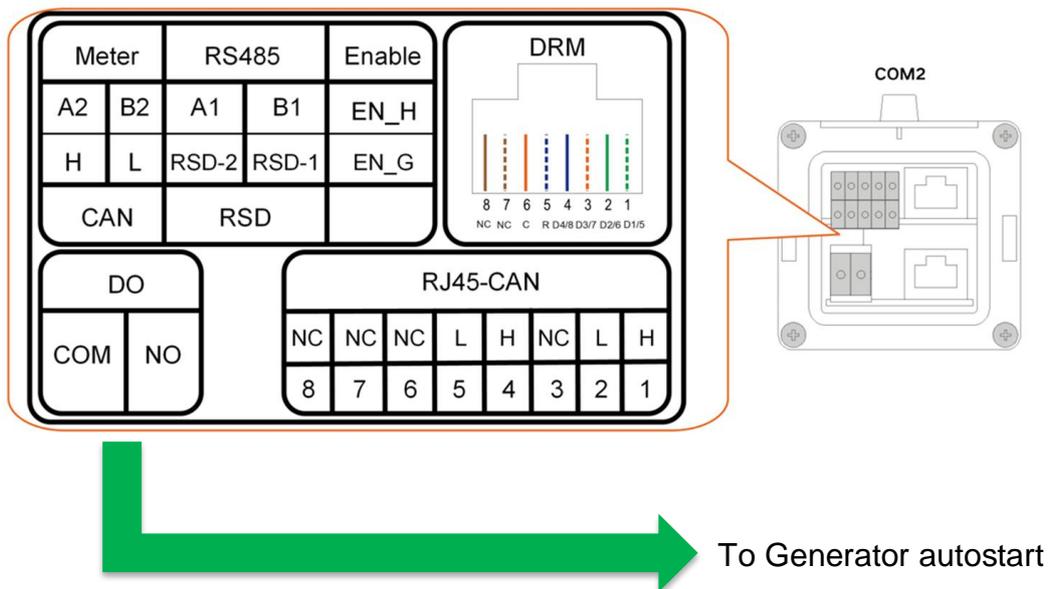
Step 2: Connect the generator.

Shut down the system and connect the generator output to the AC grid connection of the inverter as per manufacturer instructions, ensuring wiring rules are followed.



Picture 1 – AC connection (Grid input)

Connect the 2-wire start connection of the generator to the DO (dry contact output) of the inverter (Consult generator manual for generator connections).

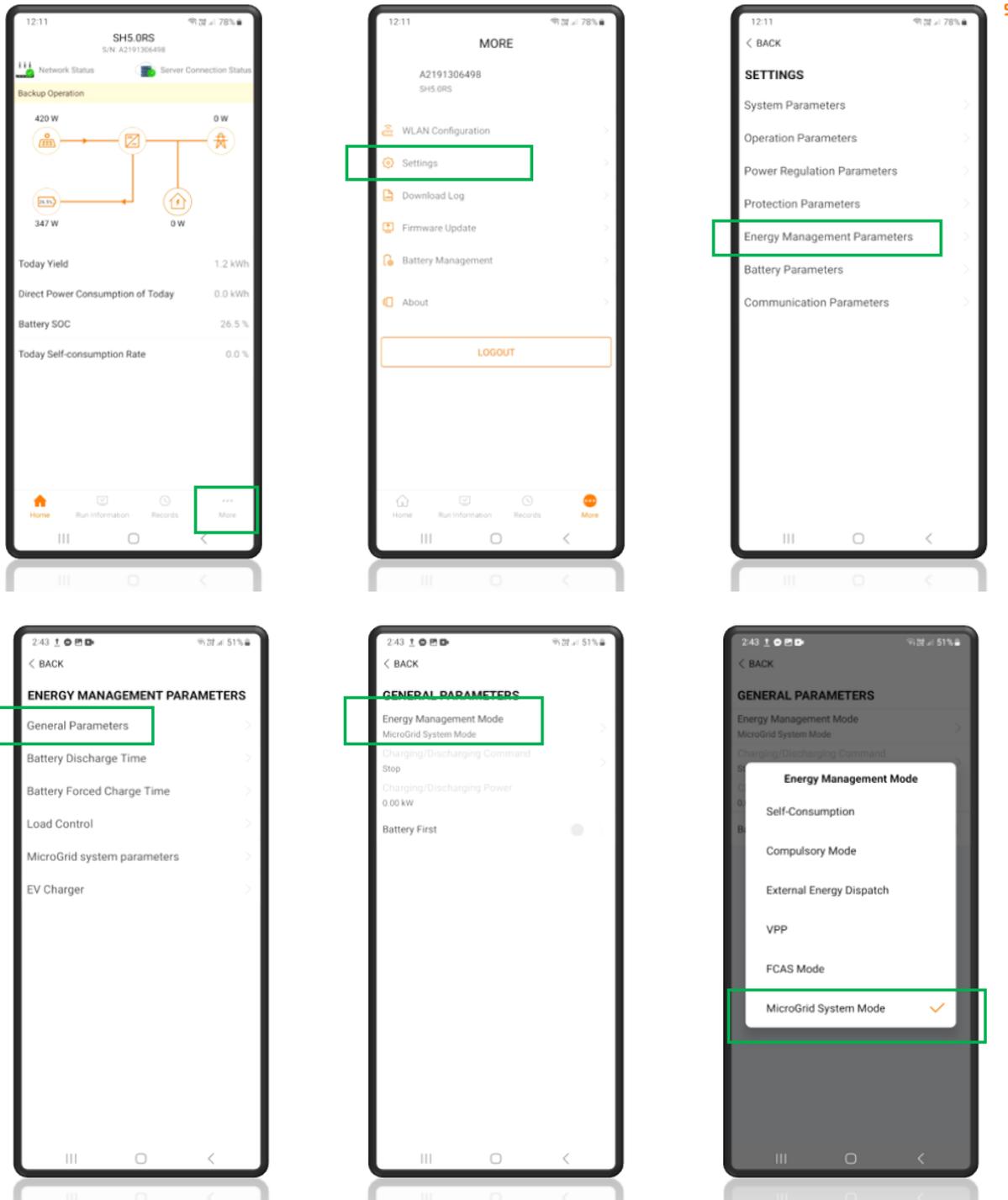


Picture 2 – 2-wire start wiring.

Step 3: Settings

Power up inverter and log in via 'Local Access'

Go to 'Settings' > 'Energy Management Parameters' > 'General Parameters' > 'Energy Management Mode' and enable '**MicroGrid System Mode**'

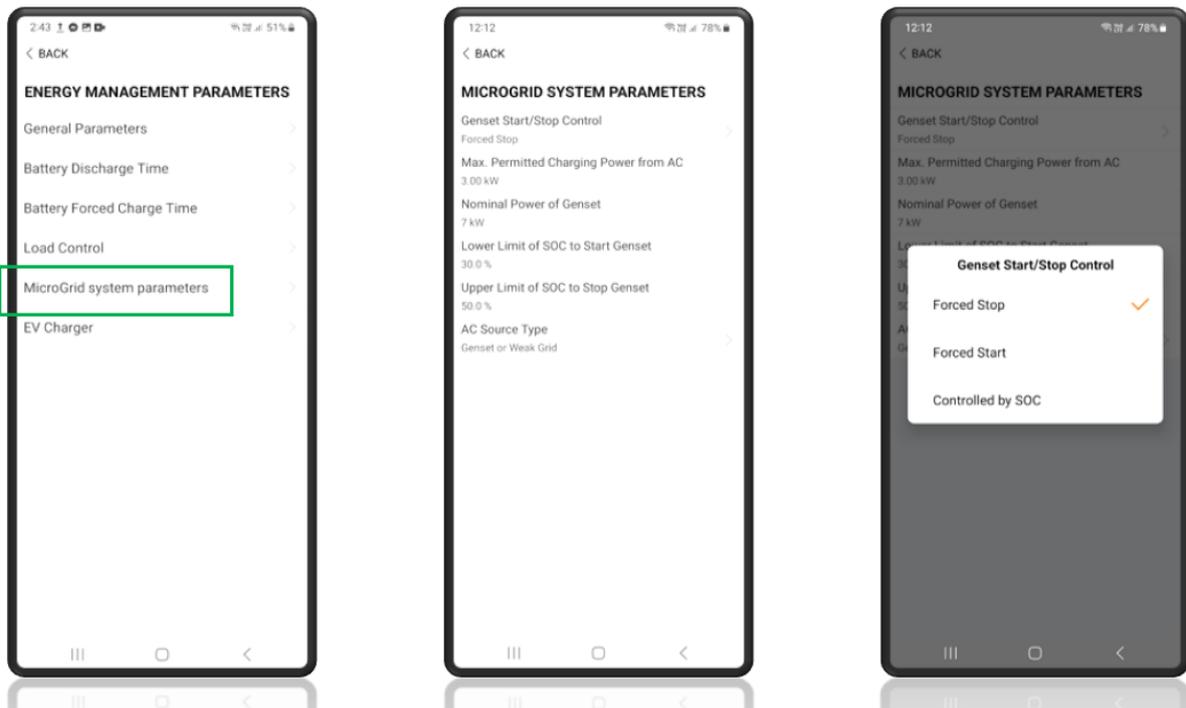


Pictures 3 & 4 – Enable the generator function

Go back to ‘Energy Management Parameters’ and select ‘MicroGrid System Parameters’

Set the ‘Nominal power of Genset’ and the ‘Maximum Permitted Charging Power from AC’ to suit the installation.

If using the SOC% method of generator control, set the lower and upper SOC%



Picture 5 – Setting the start/stop instruction commands

Step 4: Testing

Once all the settings are complete, set the generator to auto-start in accordance with the generator instructions.

Switch off the PV

Ensure the battery is not 100% (or discharge to the low SOC% setting)

Start the generator and observe the system supplying loads and charging battery.



Picture 6 – Genset supplying loads and charging battery



Picture 7 – The LED display

If using the 'Forced Start' method, select 'Forced Stop' to shut generator down.

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.