# Sungrow Off-Grid with Genset Quickguide

#### 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.

# **Quick Guide:**

The following guide is a condensed guide with all the extra information you will need to install and commission the Sungrow Hybrid inverter in Off-Grid mode, with a backup Generator.

## Applicability: SH5.0RS, SH6.0RS

#### **Genset requirements:**

The Genset must be able to supply end user loads and charge battery at the same time.

A 'Two-wire' auto start system should be used.

#### **Procedure:**

Install and commission the system exactly as you would if it was a grid connected system, *EXCEPT*, Connect the AC output of the generator to the grid connection of the inverter and the Two-wire control cable to the 'DO' terminal of the inverter:

(Use a circular 2-core control cable for the DO so that you won't compromise the IP rating of the gland.)



To Generator

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(Use a circular 2-core control cable for the DO so that you won't compromise the IP rating of the gland.)

# **Commissioning:**

Commission the system in the same way you would for grid connect (Ensure to register the plant on iSolarCloud as an Off-Grid system).



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Once complete, using the local access feature, log in to the settings.

Go to 'Energy Management Parameters' > 'General Parameters' and select 'Microgrid System Mode'.

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ENERGY MANAGEMENT PARAMETERS		GENERAL PARAMETERS		GENERAL PARAMETERS	
General Parameters	>	Energy Management Mode MicroGrid System Mode	>	Energy Management Mode MicroGrid System Mode	
Battery Discharge Time		Charging/Discharging Command Stop	>	Charging/Discharging Command	
Battery Forced Charge Time		Charging/Discharging Power		Energy Management	Mode
Load Control		Battery First		Self-Consumption	
MicroGrid system parameters				Compulsory Mode	
EV Charger				External Energy Dispatch	
				VPP	
				FCAS Mode	
				MicroGrid System Mode	~
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Tap '<Back' till you get to '*Microgrid System Parameters*' Select the 'Genset Start/Stop Control, and enable the "*Control by SOC*" method.

Enter the lower and upper SOC% values you want the genset to start and stop at.

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Cat the many changing payment if	MICROGRID SYSTEM PARAME	TERS	MICROGRID SYSTEM PARAMETERS	
Set the max charging power if	Genset Start/Stop Control Controlled by SOC	>	Genset Start/Stop Control Controlled by SOC	
	Max. Permitted Charging Power from A 3.00 kW	AC	Max. Permitted Charging Power from AC 3.00 kW	
Futor the new inclusion of the	Nominal Power of Genset		Nominal Power of Genset 5 kW	
enter the nominal power of the generator.	Lower Limit of SOC to Start Genset 40.0 %		Lower Limit of SOC to Stort Com 40 Genset Start/Stop (	Control
<b>JO</b>	Upper Limit of SOC to Stop Genset 45.0 %		U 4t Forced Stop	
	AC Source Type Genset or Weak Grid	>	A Ge Forced Start	2
			Controlled by SOC	~

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You can test the generator function from here by using the "Forced Start" and "Forced Stop" control.

## System testing:

Start the system and switch off all loads. Check that the battery is charging.

Switch on the loads and check that the loads are being supplied.

Switch off the DC and check the loads are being supplied from the battery.

Start the generator using the 'Forced Start' function and check that the generator is supplying loads and charging the battery.



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.