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

#### Disclaimer

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### 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'* 

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	🔐 WLAN Configuration	Operation Parameters
	Settings >	Power Regulation Parameters
	Download Log	Protection Parameters >
347 W 0 W	Firmware Update	Energy Management Parameters
Today Yield 1.2 kWh	Battery Management >	Battery Parameters >
Direct Power Consumption of Today 0.0 kWh	About >	Communication Parameters
Battery SOC 26.5 %		
Today Self-consumption Rate 0.0 %	LOGOUT	
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Pictures 3 & 4 – Enable the generator function

Go back to 'Energy Management Parameters' and select '*MicroGrid System Paramaters*'

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%

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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.

10:54	今間』 73%
S S/N: J	H5.0RS A2191306498
Network Status	Server Connection Status
On-grid Operation	
0 W	3,949 W
(max) 3,078 W	871 W
Today Yield	0.0 kWh
Direct Power Consumpt	ion of Today 0.0 kWh
Battery SOC	48.6 %
Today Self-consumption	Rate 0.0 %

Picture 6 – Genset supplying loads and charging battery

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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.