

APPLICATION GUIDE: SA GOV SMARTER HOMES SAPN /FRONIUS - REMOTE DISCONNECT SETUP as of 28th Sept 2020

Application Guide

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1. GENERAL

This Application Guide describes the procedure to setup a Fronius inverter system to comply with the SA Smarter Homes regulation of remote disconnect/reconnect when selecting the "**SA Power Networks / Fronius** – *Fronius* – *API control of internet connected Fronius*" Relevant Agent option.

***NOTE: The SAPN / Fronius API control solution is NOT compatible with the **Symo Hybrid** series OR the **GEN24** series inverter range. An alternate Relevant Agent will need to be chosen for these inverter series.

2. END CUSTOMER ONBOARDING

In order to on-board the PV system Owner / Operator for compliance to the Remote disconnect / reconnect requirement the SEG applicant is required to get consent from the system Owner.

2.1 SEG application

When filling out the SEG Application:

- select SA Power Networks as the Relevant Agent
- select Fronius API control of internet connected Fronius Inverters as the relevant technology

Installation type	Embedded execution
Customer details	Embedded generation
Installation details	Installation details
> Inverter details	Relevant Asent details
> Total generation capacity	Tectority gain county
Relevant Agent details	Select the Relevant Agent for the electricity generating plant. Information on Relevant Agents and their compatible technology is listed on the OTR website available here.
Confirm and submit	* Select the Relevant Agent
Receipt	SA Power Networks
	* Select the selected technology
	Select user reveal to extend to the select a support of Alpha SES in writers Or Alpha SES - All costed of Fateroat connected Alpha SES in writers
	A projector set reaction interfector registration and the set of the set
	Giologi Sile - All control constant Control and Sile insustant
	Conduct API control of interact connected control going interacts Conduct API control of interact connected control going interacts
	Oreensum: - API control of internet concerted Goodwe. Summou and Growatt Inverters via the Greensum deX platform
	Huswei - API control of internet connected Huswei Inverters
	O Mondo - Internet connected Mondo Ubi IoT device connected to supported inverters via Modbus
	Redback Technologies - API control of internet connected Redback inverters
	SCADA Control - Suitable for electricity generating plants with a capacity of more than 200kW
	O SMA - API control of internet connected SMA inverters
	SolarEdge - API control of Internet connected SolarEdge inverters
	O Sungrow - API control of internet connected Sungrow inverters
	O SwitchDin - Internet connected SwitchDin Droplet device connected to supported inverters via Modbus
	Internet connected Wattwatchers Auditor 6M or 6W device with contactor switching for all inverters, or connected to inverters DRM port for supported models
	* □ By checking this box you confirm to SA Power Networks that:
	 the Customer is aware and agrees to appoint SA Power Networks as their Relevant Agent on the Relevant Agent Appointment Terms and Conditions for the generating plant selected on this application;
	the Customer has authorised you to agree on their behalf to the appointment on those terms and conditions:
	you appoint SA Power Networks as the Relevant Agent for the Customer on the terms and conditions described above; and
	• you are aware that SA Power Networks will rely on this confirmation in performing the role of Relevant Agent under the Electricity Act 1996 (SA) and regulations made thereunder;
	you confirm the system will be installed and commissioned in accordance with the instructions from the Technology Provider to allow SA Power Networks to perform their role of the Relevant Agent.
	Customer means the person(s) named in this application. Relevant Agent has the meaning given to that term in the Electricity Act 1996 (SA) and regulations made thereunder.



3. ONSITE INVERTER SETUP

3.1 Inverter SW Update

In order to comply with the VRT requirement the inverter must have minimum the following Country Setup version and setting:

SetupAUS5 (AUS5 - SA)Version1.1.2.0

If the Setup Version is lower than *1.1.2.0*, then an inverter USB or Solarweb software update is required and after the update, the country setup reloaded with the code *73887*.

The country setup version can be checked on the inverter display under: **INFO** \rightarrow **Device Info** \rightarrow **Country Setup.**



3.2 Datamanager configuration

Commission and configure the Datamanager as per the normal process so that the Inverter has an internet connection and communication to Solarweb. For information on this procedure, please see our other online *Quick Guides for information*

The Installer <u>MUST</u> check & confirm the Datamanager has a valid connection to Solarweb by:

1. Checking the LED status on the Datamanager WebUI. Solarweb symbol should be GREEN ${rak GO}$

Galvo Aus		Current data
	System information	Current genera
Datalogger ID	240.210414	
Circuit board version	2.4D	Services
Software version	3.16.7-1	System informa
System time	Oct 28 2020, 13:30:57 EST	Network diagno
Uptime	25 d, 3 h, 58 min, 12 sec.	Firmware upda
User agent	Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/86.0.4240.111 Safari/537.36	Start assistant
Gateway	192.168.2.1 (wlan0)	
DNS server	192.168.2.1	User: admin
LED states	🖌 🗙 🧐 👖	Logout
	LAN interface	
IP address		
Subnet mask		Settings
MAC address	00:03:AC:0A:E9:2C	
	WLAN interface	
IP address	192.168.2.181	
Subnet mask	255.255.255.0	
MAC address	00:06:C6:91:AB:FD	
	GPIO	
IO-Name	100 101 102 103 14 15 16 17 18 19	
IO-Direction	OUT IN IN IN IN IN IN IN IN	
IO-State	off off on off off off off off	



OR

2. Visual check of Solarweb LED 📀 directly on the Datamanager card



4. SOLARWEB CLOUD SETUP

4.1 Create system in Solarweb

Create a new system in Solarweb as per the standard process. The inverter MUST have a valid connection to Solarweb to be compliant.

4.2 Ensure correct site Address & Installation Date is entered

In order for SAPN and Fronius to cross reference the systems under their control, the correct address of the system MUST be entered.

Go to SETTINGS → PROFILE

Franius SAPN Test	😡 Product registration 🗟 🎦
PROFILE IMAGE CONTACTS COMPONENTS PERMISSIONS TARI	FFS SERVICE MESSAGES CHANGE OWNER DELETE
Profile of PV system	
PV system name SAPN Test	

Enter the date of installation under *"Installation Date"* Then enter the PV system site address

Fronius	SAPN Test	
Offset Earning	0	
0		
Installation date	9	
30.09.2020		
LOCATION		
Street		
123 Example S	Street	
Zip code	City	
5045	Glenelg	
Country		
Australia (Aus	stralia)	~
State		
South Australi	lia	~
My PV systems	> SAPN Test > Settings	



4.3 Add Guest permission for SAPN

In order for the system to be allocated to SAPN for use with the Fronius API inverter control for the remote shutdown, the **User** <u>agent@sapn.com.au</u> must be added to the **PERMISSIONS** list as a "**Guest**".

Go to the **SETTINGS**

Fronius SAPN Test			Product registration 😨	-
← OVERVIEW ANALYSIS ENERGY BAL/	ANCE REPORTS SERVICE MESSAGES	SETTINGS		
CURRENT POWER	ENERGY BALANCE TODAY	()	EARNING	0
	0.00 kWh		2020 0.00 AUD	
			CO ₂ SAVINGS TOTAL	

Then go to **PERMISSIONS** and click on "ADD"

Fronic	SAPN Test	😡 Product registration 💀 🎝 🖓
÷	PROFILE IMAGE CONTACTS COMPONENTS PERMISSIONS TARIFFS SERV	VICE MESSAGES CHANGE OWNER DELETE
Perm Approv	nissions val for access via Solar.web	
Usernam	e 🥼	Right J1
	No data available in table	
ADD		

Under **Username** enter "agent@sapn.com.au" and under **Rights** select "Guest " then click **OK**

Gronius SAPN Test			Ģ	Product registration 😨 📮 🗸
	Add		×	
	Username	agent@sapn.com.au		
Permissions	Right	Guest	~	
Approval for access via Sol		CANCEL	ĸ	
Username		v=3	_	
		No data available in table		
ADD				



SAPN has now been added as a Guest to the system

Franiu	SAPN Test	Q	Product registration	I	Ť
÷	PROFILE IMAGE CONTACTS COMPONENTS PERMISSIONS TARIFFS SE	RVICE MESSAGES	CHANGE OWNER	DELETE	
Perm Approv	issions al for access via Solar.web				
Usernam	ţ	Right		1	t.
agent@s	on.com.au	Guest			
ADD	EDIT DELETE				

4.4 Add Owner / Operator email contact to CONTACTS

To fulfil the communication connection requirements dictated by SAPN, if the generating system goes "offline" or loses connection to Solarweb, the End Customer (Owner / Operator) must be notified that their system has lost communication to the Fronius server (Solarweb) and thus can no longer be remotely controlled / no longer compliant.

They will be sent an automated Email indicating that the system has lost communication and that they need to restore the connection.

Go to **SETTINGS** → **CONTACTS** Then under *E-mail* click "*Add*"

Gronius SAPN Test		😡 Product registration 😨 🌱 😽
← PROFILE IMAGE CONTACTS	COMPONENTS PERMISSIONS TARIFFS	SERVICE MESSAGES CHANGE OWNER DELETE
Contacts		
Telephone ①		
Telephone number	↓1 Language	11 Active 11
	No data available in table	
ADD		
E-mail 💿		
E-mail 11 Language	↓↑ Receive Reports ↓↑	Receive Service Messages
	No data available in table	
ADD		
My PV systems > SAPN Test > Settings		Go to top



	Add		×		
	E-mail	john.doe@gmail.com			
Contacts	Language	English	~		
Telephone 🕕	Receive Reports				
Telephone number	Receive Service Messages			Active 4	
ADD	_	_	CANCEL]	
E-mail 💿					
E-mail 👫 Language	↓↑ Receive Rep	orts	Receive Service Messages		
		No data available in table			
ADD My PV systems SAPN Test Settings				🔺 Go to t	ор

Enter the PV system Owner/Operators contact E-mail address, and click "OK"

4.5 Add site NMI number to the PV system

In order for SAPN and Fronius to align the correct systems the NMI number needs to be added to the system. As there is no dedicated box to enter this number, therefore the inverter "name" shall be used to enter the NMI number.

Go to **SETTINGS** → **COMPONENTS**

Click on the inverter information row and click "Edit"

Data sour	ces															
Data source ID	ļ†	Data source	type	Online (i)	ţ١,	IP Addres	s (i) .↓†	active until	() ↓(Update	()	Actions	
240.386292		Datamanage	er	616		49.192.19	2.194	Active			In Av	stalled: 3 ailable: 3	.16.7-1			
ADD CH.	ANGE	DEACTIV	/ATE													
Energy me	eters	5														
Energy me	eters	¥ ↓1	Position		ţţ	Category	y	ţ,	Data s	ource ID		11	Visib	le		↓Ē
Energy me Name Ext. Device	eters	# 1±	Position Feed-in p	point	ţţ	Category	y meter	ţţ	Data s	ource ID 36292		Ļţ	Visib	le		17
Energy me Name Ext. Device	eters	¥ <u>↓≞</u> 1	Position Feed-in p	point	11	Category Primary	y meter	ţţ	Data s	ource ID 36292		, II	Visib	le		↓ ! ?
Energy me Name Ext. Device	eters	¥ ↓1. 1	Position Feed-in p	point	11	Category Primary	y meter	ţţ	Data s	ource ID 36292		ţţ	Visib	le		↓ <u></u>
Energy me Name Ext. Device	ut a	5 # <u>11</u>	Position Feed-in p	point	11	Category Primary	y meter	11	Data s	ource ID 36292		11	Visib	le	UPI	↓ ? DATE
Energy me Name Ext. Device EDIT Inverters Name	# 11	# IL 1 Serial numbe	Position Feed-in p	point ype]† [Lt ata sou	Category Primary	y meter Wp ① 11	Jî Visible (Data s 240.38	ource ID 66292 active until 11	Se	J1	Visib	le date	UPI	↓F DATE ions
Energy me Name Ext. Device EDIT Inverters Name	aters	# Ih 1 Serial numbe	Position Feed-in p Pr 11 Ty	point ype 11 C	J† ata sou	Category Primary	y meter Wp ① 11	J† Visible (Data s 240.38	active until	Se	L1 elect all	Up: Up: Up:	le date lled:	UPI ① Act	↓ F DATE ions



	Edit			,			10+
← PROFILE IMAGE CO	Euit				CHANGE ON	WNER DE	LETE
_	Name	12345678910					
Data sources	☐ disabled DC1 [Wp]	3200					
Data source ID 11 Data source	disabled				Upd	date 🛈 Ac	tions
240.386292 Datamanar	DC2 [Wp]	3500	Installed: 3.16 Available: 3.16	.7-1 .7-1			
ADD CHANGE DEACT	Attention: Changing the inve Solar.web (e.g. Energy comp adjust the settings of the mo	rter configuration can af arison in the SERVICE M nitoring functions.	fect the monitorin ESSAGES area). If	ng functions of f necessary,			
Energy meters							
Name 11 # 11			CANC	EL OK	lt I	/isible	17
Ext. Device 1	Feed-in point	Primary meter	240.3	86292	<	•	
EDIT							
Inverters							UPDATE
Name ↓↑ # ↓≜ Serial numb	er ↓ † Type ↓† Data sour	ce ID 👫 Wp 🛈 🕸	Visible (i) ↓≣	active until 🔱	Select all	Update (i)	Actions
Primo 6.0-1 (1) (# 1 28417504	Primo 6.0-1 240.3862	DC1: 3200 DC2: 3500	۲	Active	I fro31 A	nstalled: 331.upd wailable:	

Delete the inverter "Name" and enter the 10- 11 digit NMI number, and click OK

The NMI will now be displayed in the inverter "Name" box

	E IN	MAGE COM	NTACTS C	OMPONENTS	PERMIS	SIONS	TARIFFS	SER	VICE MESSAG	ES CHAN	GE OWNER	DELETE
Data sour	ces											
Data source ID	.↓î	Data source	type ↓ † On	line (i) ↓†	IP Address	() ↓†	active until	() ↓†			Update 🕕	Actions
240.386292		Datamanage	er 🙌		49.192.192.	.194	Active			Installec Available	: 3.16.7-1 : 3.16.7-1	
ADD CH	ANGE	DEACTIV	/ATE									
Energy me	eter:	S # ↓1	Position	ţ	Category		ţţ	Data so	ource ID		Jî Visible	↓ ^{II}
Ext. Device		1	Feed-in point		Primary m	ieter		240.38	6292		٩	
Ext. Device		1	Feed-in point		Primary m	leter		240.38	6292		۲	UPDATE
Ext. Device EDIT Inverters Name	# 11	1 Serial number	Feed-In point	11 Data sou	Primary m rce ID ↓≞ 1	wp ① ↓†	Visible (240.38) ↓F	active until 11	Select al	© Update	UPDATE Actions
Ext. Device	# 11	1 Serial number 28417504	Feed-In point er 11 Type Primo	Data sou 6.0-1 240.3862	Primary m	WP ① 11 DC1: 3200 DC2: 3500	Visible (240.38	active until 11 Active	Select al	Update Installed: fro31331.upd Available: fro31331.upd	UPDATE O O Actions



4.6 Ensure system is "Online" and communicating to Solarweb

For compliance, the system MUST show an "online" status in Solarweb

Go to SETTINGS → COMPONENTS

Check the online status is BLUE

					10+
← PROFILE IM	AGE CONTACTS COMPON	ENTS PERMISSIONS	TARIFFS SERVICE	E MESSAGES CHANGE OWNER	DELETE
Data sources					
Data source ID	Data source type 🕼 Online 🔅	↓ IP Address ③ ↓↑	active until () ↓↑	Update 🔅	Actions
240.386292	Datamanager 🏘	49.192.192.194	Active	Installed: 3.16.7-1 Available: 3.16.7-1	
ADD CHANGE	DEACTIVATE				

5. ECOC DOCUMENTATION

5.1 Inverter S/N entry

As a part of the compliance and to make sure SAPN and Fronius are able to synchronise the system lists, it is very important that the correct Inverter S/N is entered in the eCoC (Electronic Certificate of Compliance) form when submitted:

Inverter *	
Manufacturer	•
Inverter *	
Model	•
Serial Number 1 *	
Export Limited *	

END OF DOCUMENT

Fronius Australia Technical Support Email: <u>PV-Support-Australia@fronius.com</u> Phone: 03 8340 2910

For more detailed information see the operation manual available on the product specific page on http://www.fronius.com/en-au/australia