



# Application Guide

## Fronius GEN24, Verto, Tauro & SnapInverter

## VIC Emergency Backstop Mechanism

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Gender-specific wording refers equally to female and male form.

## Change Log

DATE	VERSION	COMMENTS	AUTHOR
30/09/2024	1.0	First version	Fronius Australia
21/10/2024	2.0	Revised text, additional information	Fronius Australia
30/04/2025	3.0	Inclusion of multi-inverter sites + minor changes and new layout	Fronius Australia

## SCOPE

This document outlines the process of how to configure a Fronius inverter system to comply with the AEMO directive for the **Victoria Emergency Backstop Mechanism** for Solar. These instructions **ONLY** outline “additional” steps to the standard system commissioning process.

The following inverter series are relevant to this document:

- **Fronius Primo & Symo GEN24 and GEN24 Plus**
- **Fronius Verto**
- **Fronius Tauro & Tauro ECO**
- **Fronius SnapINverter Primo, Symo, ECO, Galvo**

## GENERAL

From **1. October 2024**, any new, upgraded, altered site applications (less or equal to 200kW) must comply with the VIC Emergency Backstop Mechanism. The following 5 energy distributors (DNSPs) are participating:



This document **ONLY** covers the Fronius processes (Inverter setup & Solarweb). It does **NOT** cover or include any specified processes required by any of the above-mentioned energy distributors. For information on the DNSP processes, please consult the relevant DNSP instructions/procedures.

The version 3.0 of this document now covers ALL Fronius inverter configurations “natively / in-house” except for a few edge case scenarios.

The following configuration is the only one NOT supported by the native /in-house solution:

- **Multiple SnapINverter ONLY** sites where inverters are NOT in a SolarNet (daisy chain) configuration and no GEN24, Verto or Tauro are present.

These types of sites will require an external controller for compliance such as Catch Control, Zeco Marshall or Village Energy controller. All other multi-inverter configurations are now natively supported.

## System Components

The following component groups are **required** as part of the system:

### Supported Fronius inverters:

- Fronius Primo or Symo GEN24, GEN24 Plus
- Fronius Verto
- Fronius Tauro or Tauro ECO
- Fronius Primo, Symo, Eco SnapINverters

**IMPORTANT:** A minimum inverter firmware version is required for correct functioning of the system.

GEN24, Verto, Tauro =  $\geq 1.34.x-x$

SnapINverter (Datamanager) =  $\geq 3.31.1-7$

If the firmware version is below the mentioned versions, the firmware MUST be updated


### Supported Fronius Smart Meters:

- Smart Meter 63A-1, 63A-3, 50kA-3
- Smart Meter WR, 480V UL, 240V UL
- Smart Meter IP

**IMPORTANT:** A Fronius Smart Meter is now required to be installed in ALL systems to be enrolled in the VIC Emergency Backstop.

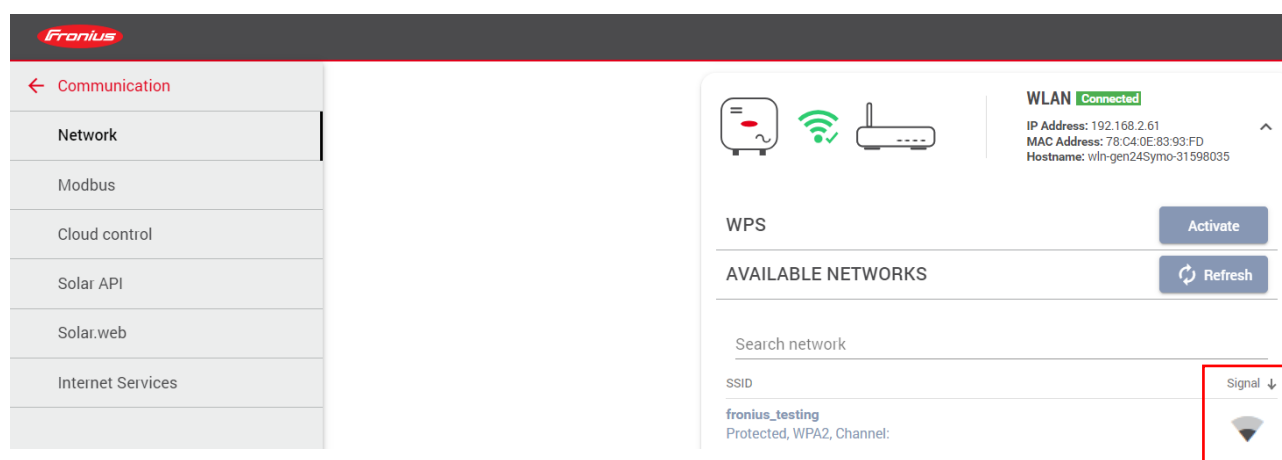
## Router:

An ethernet router with internet connection is required so that all inverters can be controlled via the internet (IEEE 2030.5 – CSIP-AUS).

A hard wired ethernet connection to the inverters is recommended to ensure stable and reliable operation. Where a Wi-Fi connection is the only possible connection, the signal strength must be equal to or better than .

The signal strength can be checked in the “**Network**” tab under “**Available Networks**”.

- Click on “**Communication**” then “**Network**” to check the signal strength.



**NOTE:** If the connection to the router or internet is lost, the inverter will go into “**Default Control**” until the connection is restored. The “**Default Control**” value varies depending on the DNSP (e.g. 0kW, 0.5kW, 1kW.) Once the internet is restored, the latest active DER Control Export value is received again from the DNSP (e.g. 5kW, 10kW etc).

## General Configuration

- Familiarise yourself with the DNSP application & commissioning process
- A Solarweb account is required
- A stable internet connection needs to be established

DNSP Default Control values to be applied in **Section 3.2 or 4.2** (Current as of 30<sup>th</sup> April 2025)

DSNP / Utility	Default Control value / Local Static Export Limit
United Energy, Powercor, Citipower	0 W
AusNet Services	1000 W
Jemena	500 W

## Inverter Configuration Setup (GEN24/Verto/Tauro)

There are 3 x functions that must be executed on the inverter:

- **Firmware Update**
- **Set Local Static Export Limit / Default Control**
- **Enable Cloud Control**

### Firmware update

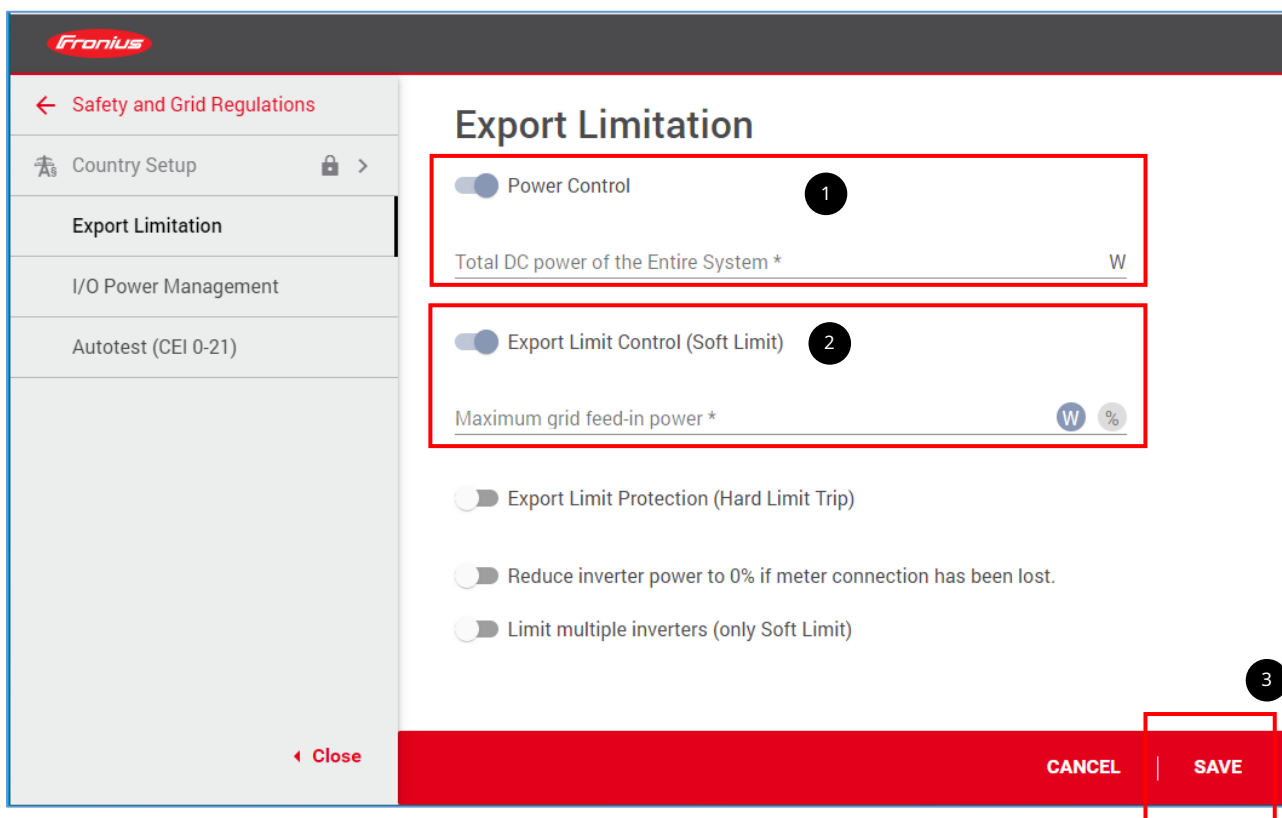
- Update inverter firmware to at least 1.34.x-x

### Set Local Static Export Limit / Default Control

Connect to the user web interface and login using the **“Technician”** password.

If required, see our YouTube video: *How-To video: Connecting to the user interface of the GEN24/Tauro*

- Click on “Safety and Grid Requirements” in the menu on the left and then select **“Export Limitation”**.



**Export Limitation**

☒ Power Control 1

Total DC power of the Entire System \* W

☒ Export Limit Control (Soft Limit) 2

Maximum grid feed-in power \* W %

☐ Export Limit Protection (Hard Limit Trip)

☐ Reduce inverter power to 0% if meter connection has been lost.

☐ Limit multiple inverters (only Soft Limit)

Close CANCEL SAVE 3

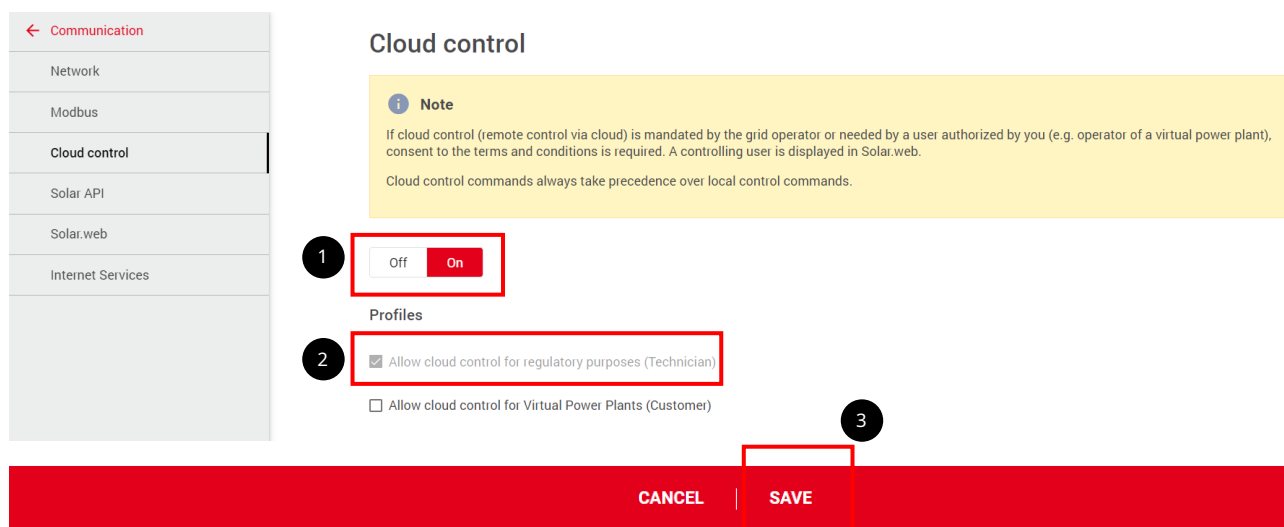
1. Activate **“Power Control”** and enter the **“Total DC power of the Entire System”** in Watts.
2. Activate **“Export Limit Control (Soft limit)”** and enter the **“Maximum grid feed-in power”** in **Watts\***, (see Table in Section 2).
3. Click on **“Save”**

\* The **“Local Static Export limit / Default Control”** value is the Low Static Limit defined by each DNSP. (see Table in Section 2). The system will fall back to the **“Default Control”** value when the internet connection is lost. Once the internet is restored, the latest Active DER control is enabled.

**NOTE:** If the system has multiple inverters where at least one of the inverters is a GEN24, Verto, Tauro you will need to consult our ***Application Guide – Fronius Multi-Inverter Export Limit Setup (AUS)*** in order for the Backstop functionality to work. In this use case, **first** follow the above-mentioned application guide before setting the Emergency Backstop specific settings on the Master.

## Enable Cloud Control

- Click on **“Communication”** in the menu on the left and then select **“Cloud Control”**.



**Cloud control**

**Note**

If cloud control (remote control via cloud) is mandated by the grid operator or needed by a user authorized by you (e.g. operator of a virtual power plant), consent to the terms and conditions is required. A controlling user is displayed in Solar.web.

Cloud control commands always take precedence over local control commands.

1. ☐ Off ☒ On

Profiles

2. ☒ Allow cloud control for regulatory purposes (Technician)

☐ Allow cloud control for Virtual Power Plants (Customer)

3. **SAVE**

1. Set **“Cloud Control”** to ON

2. Tick **"Allow cloud control for regulatory purposes (Technician)"**
3. Click on **"Save"**

## Inverter Configuration Setup (SnapINverter)

There are 3 x functions that must be executed on the inverter:

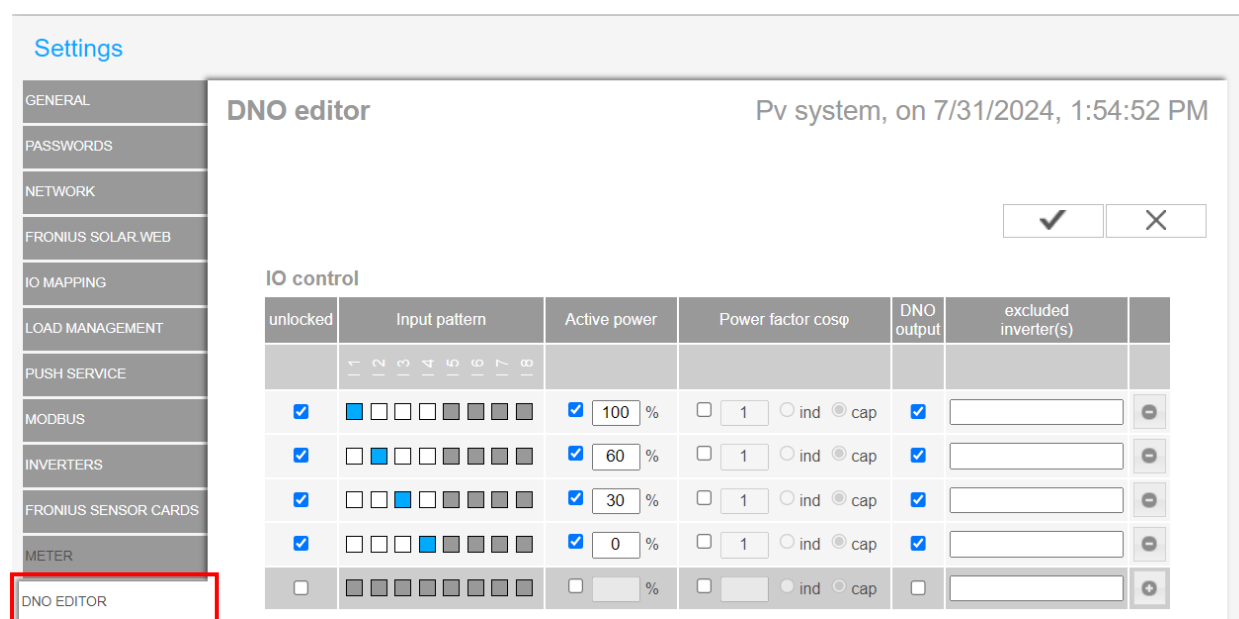
1. **Firmware Update**
  - **Set Local Static Export Limit / Default Control**
  - **Enable Cloud Control**

### Firmware update

- Update Datamanager firmware to at least **3.31.1-7**

### Set Local Static Export Limit / Default Control

- Navigate to **"DNO editor"** and perform the 2 required settings.



**Settings**

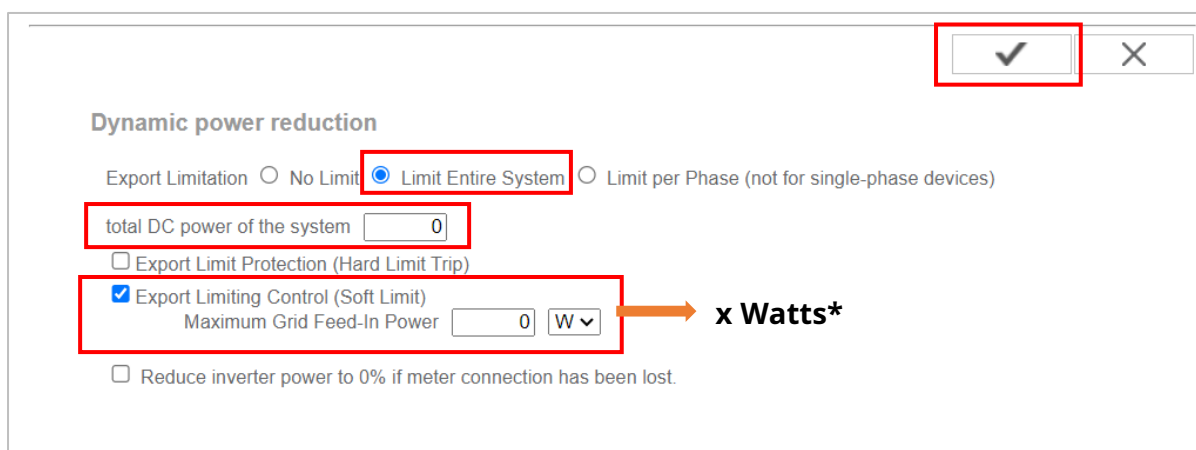
**DNO editor** Pv system, on 7/31/2024, 1:54:52 PM

IO control

unlocked	Input pattern	Active power	Power factor cosφ	DNO output	excluded inverter(s)
<input checked="" type="checkbox"/>	1 2 3 4 5 6 7 8	<input checked="" type="checkbox"/> 100 %	<input type="checkbox"/> 1 <input type="radio"/> ind <input checked="" type="radio"/> cap	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	1 2 3 4 5 6 7 8	<input checked="" type="checkbox"/> 60 %	<input type="checkbox"/> 1 <input type="radio"/> ind <input checked="" type="radio"/> cap	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	1 2 3 4 5 6 7 8	<input checked="" type="checkbox"/> 30 %	<input type="checkbox"/> 1 <input type="radio"/> ind <input checked="" type="radio"/> cap	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	1 2 3 4 5 6 7 8	<input checked="" type="checkbox"/> 0 %	<input type="checkbox"/> 1 <input type="radio"/> ind <input checked="" type="radio"/> cap	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	1 2 3 4 5 6 7 8	<input type="checkbox"/> %	<input type="checkbox"/> <input type="radio"/> ind <input type="radio"/> cap	<input type="checkbox"/>	

- Set **"Limit entire system"** in the **"Dynamic power reduction"**.
- Enter **"Total DC system power of the system"**.
- Activate **"Export Limiting Control (Soft Limit)"** and set **"Maximum grid feed-in power"** to **"X Watts"**\*. (see Table in Section 2).

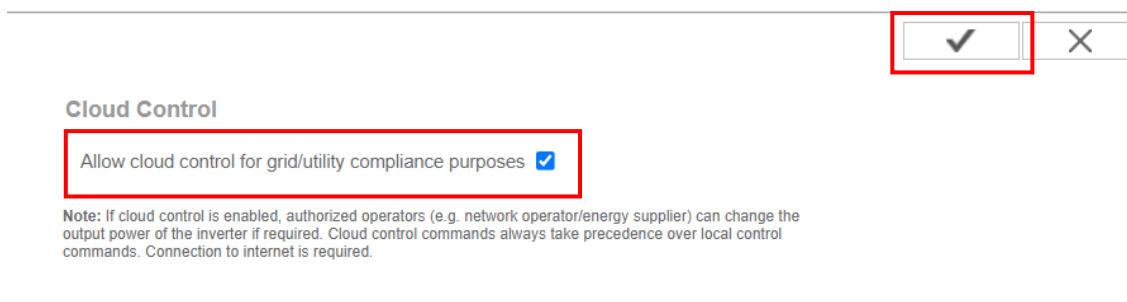
- Click on the **"Tick"** to save the settings.



\* The **"Local Static Export limit / Default Control"** value is the Low Static Limit defined by each DNSP. (see Table in Section 2). The system will fall back to the **"Default Control"** value when the internet connection is lost. Once the internet is restored, the latest Active DER control is enabled.

## Enable Cloud Control

- Set **"Allow cloud control for grid/Utility purposes"** in the **"Cloud Control"**.
- Click on the **"Tick"** to save the settings.

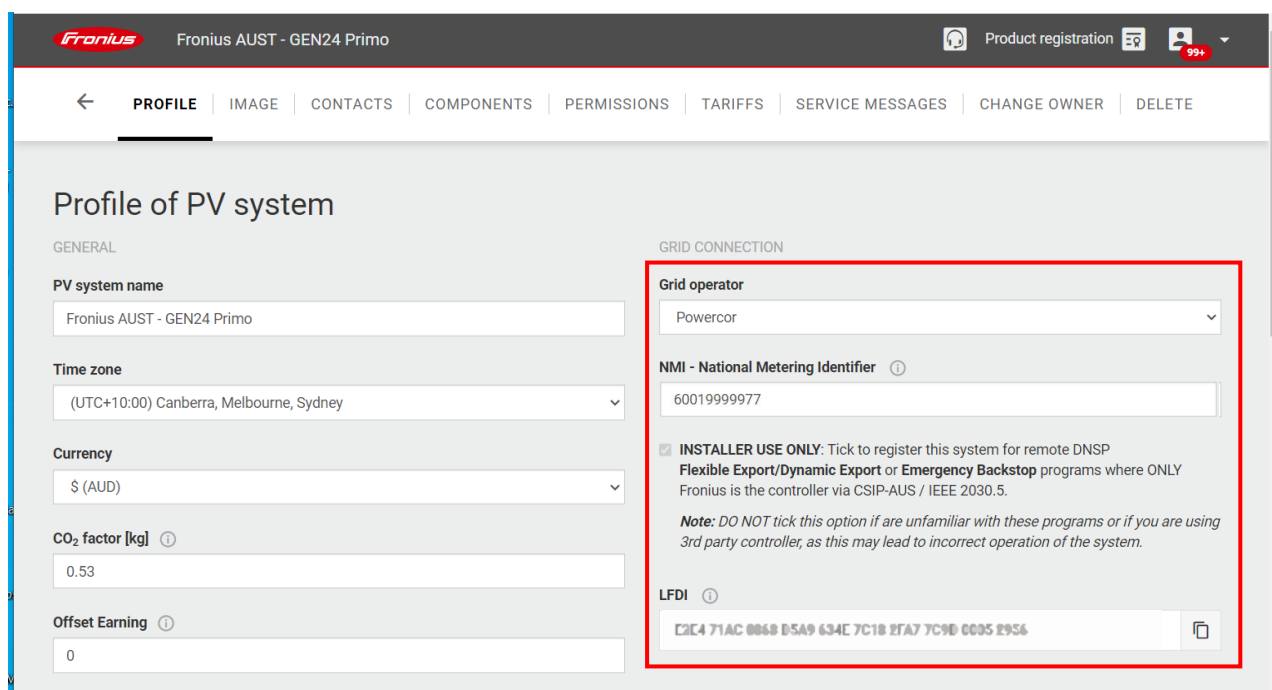


## Solarweb Portal Setup & LFDI Creation

- Navigate to the system on Solarweb and click on **"Settings"**.
- Under **"Profile"** then **"Grid Operator"** select the designated DNSP.
- Add the **"NMI"** of the site.



- Tick the **“INSTALLER USE ONLY...”** registration box and click on **“SAVE”**.



**Profile of PV system**

**GENERAL**

PV system name  
Fronius AUST - GEN24 Primo

Time zone  
(UTC+10:00) Canberra, Melbourne, Sydney

Currency  
\$ (AUD)

CO<sub>2</sub> factor [kg] ⓘ  
0.53

Offset Earning ⓘ  
0

**GRID CONNECTION**

Grid operator  
Powercor

NMI - National Metering Identifier ⓘ  
6001999977

☒ **INSTALLER USE ONLY:** Tick to register this system for remote DNSP Flexible Export/Dynamic Export or Emergency Backstop programs where ONLY Fronius is the controller via CSIP-AUS / IEEE 2030.5.  
*Note: DO NOT tick this option if are unfamiliar with these programs or if you are using 3rd party controller, as this may lead to incorrect operation of the system.*

LFDI ⓘ  
C2C4 71AC 0868 D5A9 634E 7C1B 2FA7 7C9D 0095 2956

After clicking **“SAVE”** an **LFDI** (Long Form Device Identifier) field will appear with the LFDI number.

### **Device Registration with LFDI:**

**“In-band registration”** – DNSPs with this capability will self-register with the utility server. No additional action is needed once this step is completed. Please check the DNSP portal for next steps.

**“Out-of-band registration”**- DNSPs that only support this method, you will need manually copy the LFDI and paste this into the relevant section of the DNSP portal. Use the COPY button to help with this.

## Troubleshooting tip

The 2 main causes of failed “Capability Tests” within the DNSP portal is due to firmware not updated & cloud control not being activated on the inverter.

## DNSP Information Links

For information on the DNSP processes and information for installers please follow the below links:

- **United Energy:** [www.unitedenergy.com.au/solar-installers](http://www.unitedenergy.com.au/solar-installers)
- **Powercor:** [www.powercor.com.au/solar-installers](http://www.powercor.com.au/solar-installers)
- **CitiPower:** [www.citipower.com.au/solar-installers](http://www.citipower.com.au/solar-installers)
- **AusNet:** <https://www.ausnetservices.com.au/renewable-solutions/industry-solar/solar-emergency-backstop>
- **Jemena:** <https://www.jemena.com.au/electricity/solar-and-other-technologies/emergency-backstop-mechanism/>

**NOTE:** The above links were valid at the time of publication. These may change over time, therefore Fronius is not responsible for the ongoing validity of these links.

**END OF DOCUMENT**

**Fronius Australia Technical Support**

**Email:** [PV-Support-Australia@fronius.com](mailto:PV-Support-Australia@fronius.com)

**Phone:** 03 8340 2910

For more detailed information see the operation manual available on the product specific page on [here](#).