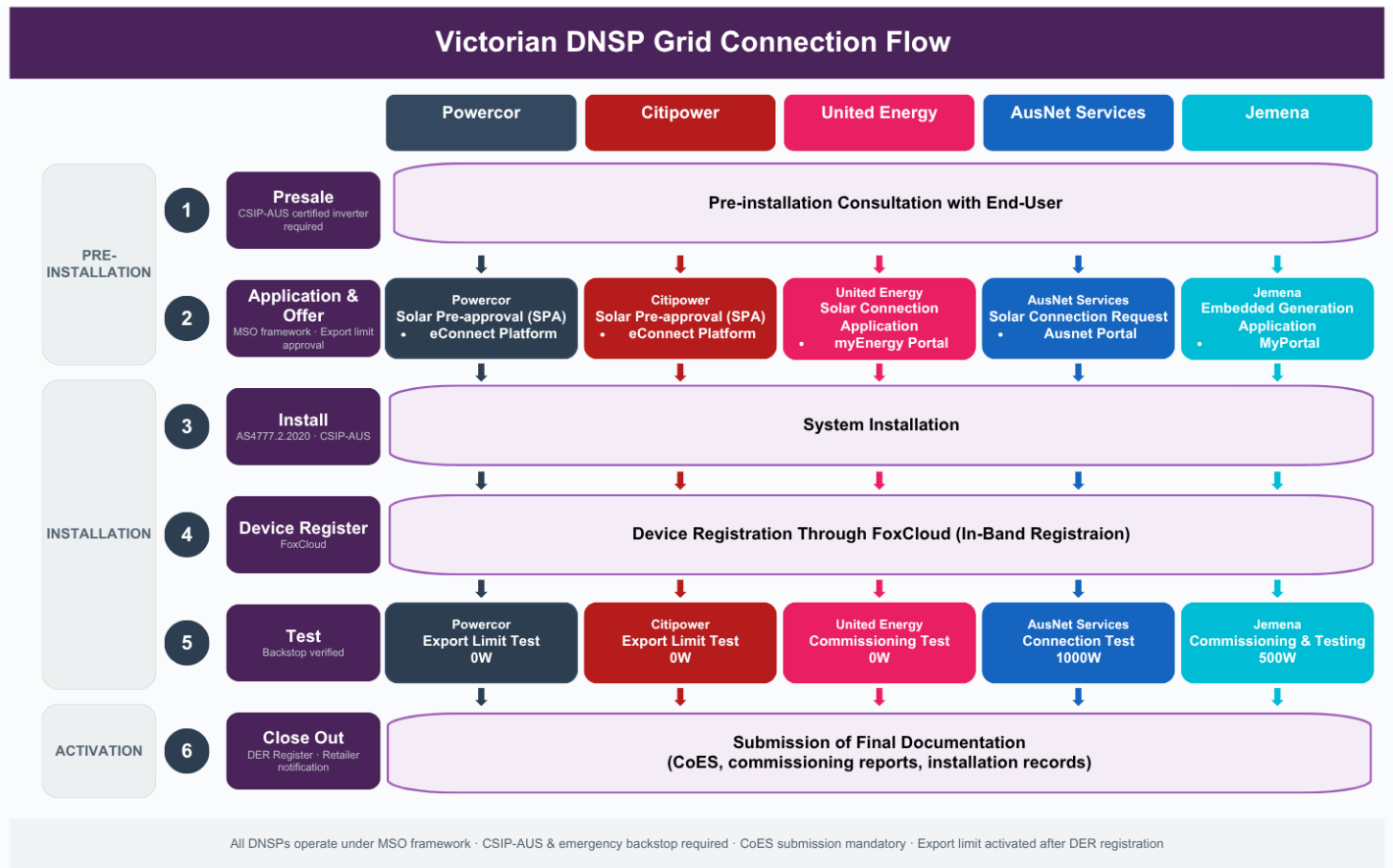


FoxESS- Grid Connection Guide (Victoria)

This document intends to help guide installers with connecting FoxESS devices to the grid and troubleshooting during registration and testing failures. All DNSPs within Victoria follows a similar structure as shown in the flow diagram.



- Powercor / Citipower- [Link](#)
- United Energy- [Link](#)
- Jemena- [Link](#)
- Ausnet- [Link](#)

Following the DNSP companies above are the links to their resource for more details on commissioning and connection guidelines.

Step 1: Presale

The customer consults with an accredited solar installer to assess their energy needs and design a suitable solar system. The installer verifies that the proposed inverter and components are CSIP-AUS certified and compatible with the local network requirements. This is an advisory stage — no formal application is submitted yet.

Step 2: Application & Offer

The installer submits a solar connection/pre-approval application on behalf of the customer through the DNSP's online portal. The DNSP assesses the local network capacity and determines the applicable export limit. Standard residential systems are typically auto-approved under the Model Standing Offer (MSO) framework within minutes. All four DNSPs operate under the national MSO framework where details and steps are similar but use different application portals as follows:

- Powercor / Citipower- [eConnect](#)
- United Energy- [myEnergy](#)
- Jemena- [MyPortal](#)
- Ausnet- [Ausnet Portal](#)

Step 3: Install

The accredited installer physically installs the solar panels, inverter, and associated equipment on the customer's premises. The system must be installed in accordance with AS/NZS 5033 and AS/NZS 4777 standards. The inverter must be configured with the correct export limit as specified in the pre-approval outcome. Installers should also double check the readings of the installation and ensure proper functionality before leaving.

Step 4: Register

It is important to know your DNSP, refer to the table below to know how to contact them and acquire the NMI through the electricity bill or locate it through the sticker of the electrical meter itself.

DNSP Contacts and Prefixes

Distributor	Contact Number	Email	NMI Prefix
Jemena	1300 131 871	networkconnections@jemena.com.au	6001
CitiPower	1800 772 940	newenergyservices@powercor.com.au	6102
Powercor	1800 772 940	newenergyservices@powercor.com.au	6203
AusNet Services	1300 360 795	energyconnectionsSG@ausnetservices.com.au	6305
United Energy	1300 131 689	newenergyservices@unitedenergy.com.au	6407

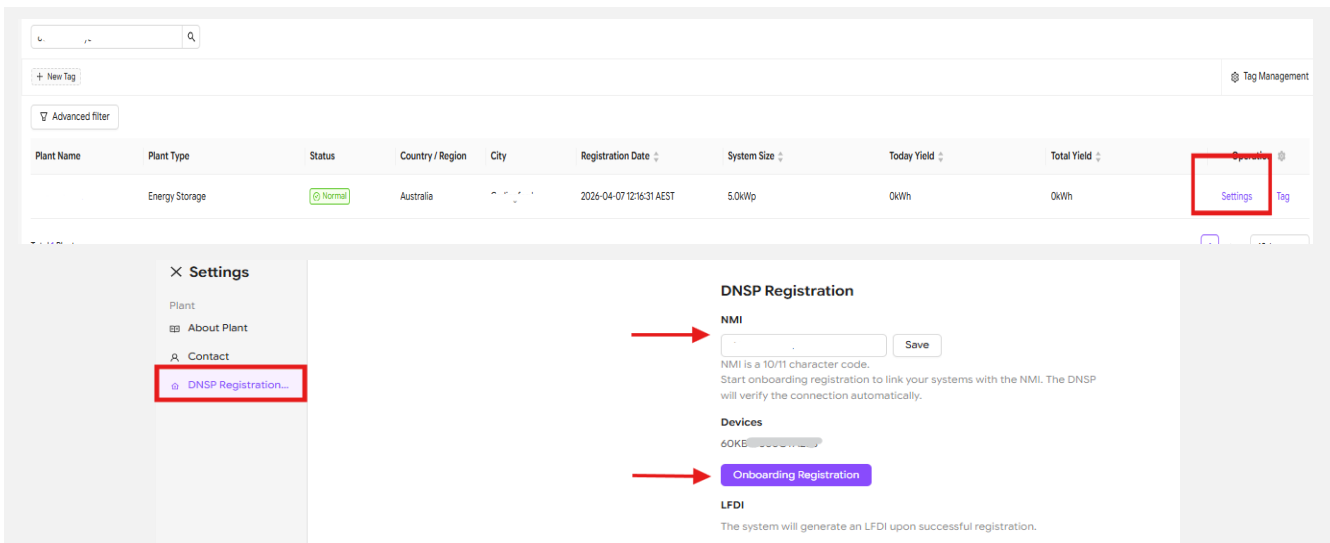
Device Registration in OEM

With each DNSP they have their respective pre-approval requirements prior to starting the capability test. Please ensure you have completed their pre-approval through the respective DNSP portal and keep the grid approval report at hand before setting up the OEM device registration.

In-band Registration can be done in FoxCloud Web and App and the steps are shown below.

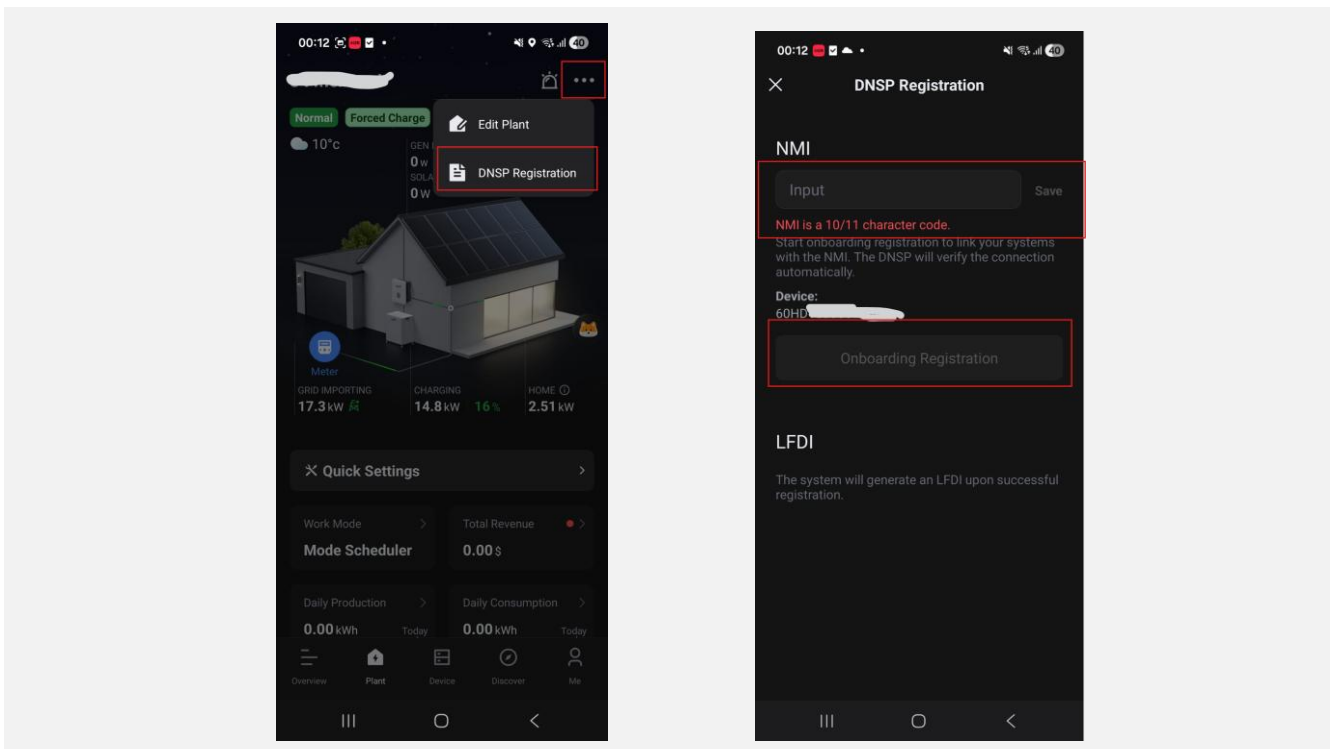
Note: NMI is a 10–11-digit number and needs to be aligned with the actual site's NMI before the registration.

Web FoxCloud



The screenshot shows the FoxCloud Web interface. At the top, there is a search bar and a 'New Tag' button. Below this is a table with columns: Plant Name, Plant Type, Status, Country / Region, City, Registration Date, System Size, Today Yield, Total Yield, and a 'Settings' button. The 'Settings' button is highlighted with a red box. Below the table, there is a 'Settings' sidebar with options: Plant, About Plant, Contact, and 'DNSP Registration...' (highlighted with a red box). The main content area shows the 'DNSP Registration' form with fields for NMI (highlighted with a red box), a 'Save' button, and a description of NMI. Below this is the 'Devices' section with a device ID '60KE' and an 'Onboarding Registration' button (highlighted with a red box). At the bottom, there is an 'LFDI' section with a note about generating an LFDI upon successful registration.

FoxCloud APP



The screenshots show the FoxCloud APP interface. The left screenshot shows the main dashboard with a 'DNSP Registration' button (highlighted with a red box) in the top right corner. The right screenshot shows the 'DNSP Registration' form with fields for NMI (highlighted with a red box), a 'Save' button, and a description of NMI. Below this is the 'Devices' section with a device ID '60HD' and an 'Onboarding Registration' button (highlighted with a red box). At the bottom, there is an 'LFDI' section with a note about generating an LFDI upon successful registration.

Solar Emergency Backstop Commissioning Checklist

Please follow the pre-condition of the site before starting the capability test.

Condition	Requirement	Why
Solar generation	Run testing in peak solar hours; some DNSPs specify a minimum (Ensure at least 2kW PV generation)	Tests validate real power telemetry and response to limits — no generation, no telemetry, no pass
Site Export Generation	Inverter Modes can be switched to Feed-in Priority/ForceDischarge and load can be reduced to ensure export is visible. Turn off as many household loads as possible to maximize the available surplus power for export to the grid.	Self-consumption mode can suppress export below the ~500 W–1.5 kW threshold the test needs to see, causing a false fail.
Internet connectivity	Continuous connection required for the full test duration, including hotspot connections if used	AusNet notes that if using a hotspot, it must remain connected until capability tests are complete, since these commence immediately after successful registration. Poor connectivity means poor response.
Firmware / regional settings	Correct firmware and region setting applied before commissioning (e.g. “Australia A” in VIC, “Australia Region B” in WA)	Regional compliant must be met while ensure newest firmware is upgraded as it consists improved functionality.
Hardware Check	Meter CT direction and installations must be correct.	Reading devices is important to ensure the right reading for the inverter to work properly.
(PowerCor Only) AC-Couple Capability test	Battery only is not required for the Capability Test unless specifically mentioned by the DNSP. Set a ForceDischarge during the period of the Capability Test Phase and ensure that the battery level is enough to discharge throughout the duration of it.	AC coupled will not export directly to the grid unless discharge command is set.

Step 5: Capability Test Stages

Each DNSP testing duration varies from 10 minutes to 45 minutes. If a different work mode is set, please ensure the work mode is changed back after the test unless instructed otherwise.

Test 1 – Connectivity and communication

Purpose: First initial checks verify the internet connectivity and hardware readings.

Failures: Test Failing at this stage are related to either hardware or network connectivity such as inaccurate readings or connection timeout

Note: Weak connectivity after this stage can still affect the test

Test 2 – Sets and tests the export limit

Purpose: Confirm adherence to default export limit set within the system:

- Powercor / Citipower / United Energy- 0kW
- Jemena- 500W
- Ausnet- 1000W

Failures: Test Failing at this stage are related to either power measurements/ export regardless of the limit.

Note: Incorrect CT or meter installation will hinder the inverter from doing things properly.

Test 3 – Tests the emergency backstop export control

Purpose: Confirm adherence to active export limit controls commands.

Failures: Test Failing at this stage are related to either PV generation are not enough to export or communication issue between DNSP and the inverter.

Note: If the load is high or battery is charging, the export value will be affected. Similar to internet instability causing the inverter to not receive the commands.

Test 4 – Final configuration

Purpose: System configuration reset.

Failures: The system should reconfigure back to its default state. Failure in this stage should refer to the error message on the portal to review.

Note: Unstable internet during this time may interrupt the closing of the test.

Resolution: Review the commission message and act accordingly. Should this stage fail, please contact FoxESS.

Troubleshooting Capability Test

Test	Failure message	Issue/check	Contact
Any	We're experiencing an issue with our server. Please try again later.	- When encountering issue within the DNSP portal, please wait and try again later or check for an outage. - Receiving this multiple times you may contact New Energy Services teams for the relevant DNSP.	DNSP
Test 1	Generation not detected. Check device settings and try again.	- DNSP could not see any values going to or from the grid. Please check the CT connections and ensure enough solar generation and encourage to lower house load during this time. - Feed-in priority work mode can be used OR Set a schedule of Force Discharge during the period of the test.	Fox Tech Support
Test 1	Export not detected. Please check your export meter and device settings.	- DNSP could not see any values going to or from the grid. Please check the CT connections and ensure enough solar generation and encourage to lower house load during this time. - Feed-in priority work mode can be used OR Set a schedule of Force Discharge during the period of the test	Fox Tech Support
Test 1	No power measurements detected. Check device settings or restart device and try again.	- The inverter is not sending power measurements. - Check the inverter and site export meter are collecting and reporting the power measurements (via the FoxCloud). - Double check on CT connection and site readings	Fox Tech Support
Test 1	Generation detected but generation is 0W. Check device settings or restart device and try again.	- Generation telemetry was received however it was 0W. - Check the inverter firmware is up to date. - Check the site export meter is set up correctly and export CT wiring is not reversed. - No hard limit is set up locally. - Confirm there is load on site to trigger the generation.	Fox Tech Support
Test 2	Generation not detected. Check device settings and try again.	- DNSP could not see any values going to or from the grid. Please check the CT connections and ensure enough solar generation and encourage to lower house load during this time. - Feed-in priority work mode can be used OR Set a schedule of Force Discharge during the period of the test	Fox Tech Support
Test 2	Export not detected. Please check your export meter and device settings.	- DNSP could not see any values going to or from the grid. Please check the CT connections and ensure enough solar generation and encourage to lower house load during this time. - Feed-in priority work mode can be used OR Set a schedule of Force Discharge during the period of the test	Fox Tech Support

Test	Failure message	Issue/check	Contact
Test 2	No power measurements detected. Check device settings or restart device and try again.	- The inverter is not sending power measurements. - Check the inverter and site export meter are collecting and reporting the power measurements (via the FoxCloud). - Double check on CT connection and site readings	Fox Tech Support
Test 2	Still exporting but export must be set. Check site, export meter and device settings or restart device and try again.	- The site is still exporting >-200W. - Check the inverter firmware is up to date. - Check site export meter is set up correctly and export CT wiring is not reversed. - If a site is stilling exporting >- 200W, review on FoxCloud the export value and see if the system is having unstable internet - Identify why the site does not adhere to 0W default control which will help them to identify the issue.	Fox Tech Support
Test 3a	Generation detected but generation must be 0W. Check device settings or restart device and try again.	- Generation telemetry has been received however it must be 0W - After receiving a control of 0W, the reported generation measurement was >+500W. - Check the site, export meter and device settings or restart device and start again. - Please check the CT connections and ensure enough solar generation and encourage to lower house load during this time. - Feed-in priority work mode can be used OR Set a schedule of Force Discharge during the period of the test	Fox Tech Support
Test 3a	Generation limit set to 0W, but site is not importing. Check export meter and device settings, then try again.	- After receiving a generation limit control of 0W, the reported Site Real Power < 0W. - Check if export CT is wired correctly. - If this still fails, call FoxESS and ask for help to identify why the site was not able to adhere to generation limit control. - If the site is less than 1 kVA and you experience multiple test failures, please contact DNSP.	Fox Tech Support or DNSP
Test 3b	Device did not increase to minimum generation limit. Try again in better sunlight conditions or check export meter and device settings, then try again.	- After receiving an export limit control of 1 500W, the reported DER Real Power <+500W. Ensure good sunlight and try again. - If the site is larger than 30kVA or less than 1 kVA and you experience multiple test failures, please contact DNSP - Flexible Exports (battery-only or solar plus battery sites): Check battery state of charge. - Confirm if battery SOC is enough for the test duration - Schedule a ForceDischarge for the duration of the test and try again.	Fox Tech Support or DNSP

Test	Failure message	Issue/check	Contact
Test 3b	Site exceeded 1 500W export limit. Site export meter not configured properly or additional uncontrolled generation onsite. Check export meter and device settings, then try again.	- After receiving an export limit control of 1 500W, the reported DER Real Power <-1 700W. - Check if export CT is wired correctly. - Call the FoxESS and ask if they have received the 1 500W export limit control and why this site does not adhere to the control. - If the site is larger than 30kVA or less than 1 kVA and you experience multiple test failures, please contact DNSP - Flexible Export sites: verify that all exporting devices are included in the site-wide coordinated control solution. This includes solar inverters, battery inverters and any legacy generation systems.	Fox Tech Support or DNSP
Test 3c	Generation detected for this large site, but generation must be 0W. Check device settings or restart device and try again. If the problem persists, please contact the FoxESS	- Generation telemetry has been received however it must be 0W. After receiving a control of 0W, the reported generation measurement was >+5000W. - Check the site, export meter and device settings or restart device and start again. - Please check the CT connections and ensure enough solar generation and encourage to lower house load during this time. - Feed-in priority work mode can be used OR Set a schedule of Force Discharge during the period of the test	Fox Tech Support or DNSP
Test 3c	Generation limit set to 0W for this large site, but site is still exporting. Check export meter and device settings, then try again.	- After receiving a generation limit control of 0W, the reported Site Real Power < 0W. - Check if export CT is wired correctly. - If this still fails, call FoxESS and ask for help to identify why the site was not able to adhere to generation limit control. - If the site is less than 1 kVA and you experience multiple test failures, please contact DNSP.	Fox Tech Support or DNSP
Test 3 (all)	Generation not detected. Check device settings and try again.	- DNSP could not see any values going to or from the grid. Please check the CT connections and ensure enough solar generation and encourage to lower house load during this time. - Feed-in priority work mode can be used OR Set a schedule of Force Discharge during the period of the test	Fox Tech Support
Test 3 (all)	Export not detected. Please check your export meter and device settings.	- DNSP could not see any values going to or from the grid. Please check the CT connections and ensure enough solar generation and encourage to lower house load during this time. - Feed-in priority work mode can be used OR Set a schedule of Force Discharge during the period of the test	Fox Tech Support
Test 3 (all)	No power measurements detected. Check device settings or restart device and try again.	- The inverter is not sending power measurements. - Check the inverter and site export meter are collecting and reporting the power measurements (via the FoxCloud). - Double check on CT connection and site readings	Fox Tech Support

Test	Failure message	Issue/check	Contact
Test 3 (all)	Device did not respond with 'event received'. Please contact the FoxESS.	- Ensure stable internet - Carry out firmware updates and try again	Fox Tech Support SS
Test 3 (all)	Device did not respond with 'event started'. Please contact the FoxESS.	- Ensure stable internet - Carry out firmware updates and try again	Fox Tech Support
Test 3 (all)	No power measurements detected after device responded with 'event started'. Check device settings or restart device and try again.	- The inverter is not sending power measurements. - Check the inverter and site export meter are collecting and reporting the power measurements (via the FoxCloud). - Double check on CT connection and site readings	Fox Tech Support

Step 6: Close Out

The installer submits all final documentation (CoES, commissioning reports, installation records) to the DNSP. The installer should double check the settings especially the work mode before closing out. The DNSP reviews and formally accepts the connection, activates the export limit in the network, and notifies the electricity retailer. The DER Register is updated with the final system details. The customer can then begin exporting solar energy to the grid.

Contacting FoxESS Tech Support

Hotline: 1300 377 369

Email: service.au@fox-ess.com

Ticket: Raise it in FoxCloud App

Before contacting FoxESS regarding the issue, please have prepare the following:

1. Inverter Serial Number
2. National Meter Identifier (NMI)
3. Date and Time of the Problem
4. Is it an AC/DC coupled?
5. Attachments of the Error message