

Embedded generation commissioning sheet

Technical data and certification for connection of embedded generation systems.

This form is to be completed by a licensed and Clean Energy Council (CEC) accredited installer on behalf of a customer for an embedded generation connection to the Power and Water network. Once the installation has been completed please submit this form along with the Certificate of Compliance (CoC) to the Power Services Connections Office via connect.me@powerwater.com.au.

Section 1- Installer and site details

Installer name

Installer's company name

Site address

Lot no. Unit no. Street no. Street name

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Suburb

Section 2 - Embedded generation system details

Photovoltaic (PV) system details

Inverter make and model¹

Inverter rating (kVA)

Total no. of inverters

Export limiting device²

PV panel make and model¹

PV panel rating (W)

No. of panels

Total array rating (kW)

Battery energy system (BES) details³

BES inverter make and model (if applicable)¹

BES inverter rating (kVA)

Total no. of BES inverters

Battery pack make and model¹

Battery pack rating (kWh)

Total no. of battery packs

Battery control system make and model

Maximum discharge rate (kW)

Maximum charge rate (kW)

Battery energy system operation configuration³

Load shifting

Backup

Ramping / smoothing

Other

¹ Enter specific model details as on the CEC's [approved list](#).

² Enter specific model details as on Power and Water Corporation's [approved list](#).

³ For any questions regarding this section, contact your connections project officer.

Section 3 – Protection scheme requirements

The following is applied to the full embedded generation (PV or BES) system:

Protection Scheme	Requirement	EG User Settings
Anti-islanding	Less than two seconds	
Auto-synchronising	Greater than one minute	
Reconnection time	Greater than one minute	
Overcurrent protection	To protect internal EG user and equipment	
Under voltage trip pick up (<0.5s time delay / instantaneous)	Less than 210 Volts (line - neutral)	
Over voltage trip pick up (<0.5s time delay / instantaneous)	Less than 253 Volts (line - neutral)	
Under frequency trip pick up (<0.5s time delay / instantaneous)	Less than 46 Hertz	
Over frequency trip pick up (No time delay / instantaneous)	Greater than 54 Hertz	
Inverter power factor setpoint	0.98 lagging (supplying VARs)	
Inverter ramp up rate	Six minutes from 100% PV inverter output to 0.	
System ramp down rate (as required by Power and Water)	12 minutes from 100% PV inverter output to 0.	

Section 4 - Installers declaration

I, the licensed and accredited installer named in Section 1, certify that the above detailed embedded generation (PV or battery) system installed at the address in Section 1 has been installed and commissioned in accordance with Power and Water Corporation's 'Technical Requirements for Grid Connection of Photovoltaic Systems via Inverters', Network Technical Code, all Power and Water Corporation approval letters and agreements as well as all relevant Australian standards and statutory requirements. I further certify that the embedded generation unit has been installed in accordance with good electricity industry practice and is ready for operation. In particular the following have been verified:

- The embedded generation unit is within Power and Water's approved size limits
- The schematic diagram has been submitted and accurately reflects the installed electrical system
- All required switches and protection devices are present and operate correctly
- Signage and labelling complies with AS4777.1, and Power and Water's 'Technical Requirements for Grid Connection of Photovoltaic Systems via Inverters'
- The embedded generation has been installed correctly and is fit for purpose
- All protection settings are within requirements.

Installer's signature

Installer's name

Date

 / /

Electrical contractor licence number

CEC accreditation number

Send to us

Email connect.me@powerwater.com.au
Postal PO Box 37471, Winnellie, NT 0821
Phone 1800 245 092