

Enquiry Form for Micro and Small Generators 5MW and Less

Connect an embedded generator (incl. solar, wind & micro-hydro) to the TasNetworks Distribution Network

Please print and complete relevant sections of this form and return to:

Post: TasNetworks Pty Ltd
Customer Supply Team
PO Box 419
Launceston Tas 7250

Phone: 1300 137 008
Fax: (03) 6324 7528
Email: newsupplyapplications@tasnetworks.com.au

Declaration

By completing this form you are agreeing to the details enclosed and accept liability for any costs incurred on this account.

Please select the type of embedded generator you plan to have installed:

Solar Wind Micro-hydro

Part 1 – Customer details

Title	<input type="text"/>	Customer's full name	<input type="text"/>
Business name	<input type="text"/>	ABN	<input type="text"/>
Street address	<input type="text"/>		
Suburb	<input type="text"/>	Postcode	<input type="text"/>
Postal address (if different)	<input type="text"/>		
Suburb	<input type="text"/>	Postcode	<input type="text"/>
Contact phone	<input type="text"/>	Mobile	<input type="text"/>
Contact email	<input type="text"/>		

Part 2 – Location of connection

Street address	<input type="text"/>					
Suburb	<input type="text"/>	Postcode	<input type="text"/>			
National Meter Identifier (NMI) if known	<input type="text"/>					
Type of premises:	Domestic/Residential <input type="checkbox"/>	Commercial/Business <input type="checkbox"/>	Industrial <input type="checkbox"/>	Rural production <input type="checkbox"/>	Council <input type="checkbox"/>	Other <input type="checkbox"/>
Retailer	<input type="text"/>					

Part 3 – Connection details

Connection type

Embedded generation

B6 Modify existing connection – micro embedded generation single phase

New connection with B6

B6 upgrade

Date of upgrade

B7 modify existing connection – micro embedded generation multi-phase

New connection with B7

B7 upgrade

Date of upgrade

I require: A preliminary enquiry response

and / or

a detailed enquiry response

Note: The normal voltage range of TasNetworks' distribution network is 230V +10%/-6% (refer section 3.2 SIR). The existing voltage at your proposed connection may be at the higher end of the allowable voltage band, which may inadvertently restrict the operation of embedded generation for periods of time. Please note it is the responsibility of the electrical contractor to ensure that the embedded generator system being connected will work within the voltage parameters existing at the proposed connection. This may require the electrical contractor to take onsite tests e.g. voltage logging (sampling over a period of time) to confirm that the system being connected will operate correctly with the system voltage operating at the specific site.

Note 2 – Frequency and Protection Settings: As the sole Distribution Network Service Provider (DNSP) and Transmission Network Service Provider (TNSP) in Tasmania, TasNetworks is responsible for complying with power system performance and quality of supply standards as specified in Schedule 5.1 of the National Electricity Rules (NER). In accordance with S5.1a.2 of the NER, power system frequency in Tasmania must remain within defined operational limits in accordance with the standards determined by the Reliability Panel of the Australian Energy Market Commission (AEMC). Under Clause 5.2.4(b)(2) of the NER, customers must comply with the reasonable requirements of the NSP in respect to design requirements of equipment proposed to be connected to the network of that NSP. To meet the requirements of Schedule 5.1a.2, TasNetworks require that customers proposing to connect embedded generation to the distribution network ensure that their equipment is capable of continuous, uninterrupted service (i.e. that the embedded generation continues to provide energy to the network) over a range of power system frequencies to which the equipment is likely to be exposed.

The protection settings for equipment shall be configured such that the equipment will **not disconnect** from the network while power system frequency remains above 47.0 Hz and remains below 52.0 Hz. For residential installations, the equipment shall be configured to disconnect from the grid, at 52.X Hz, where X is the last digit of the customer's residential address. For installations occurring at locations other than residential premises, please contact TasNetworks for the provision of setting information. It is the responsibility of the electrical contractor to ensure that the setting of under and over frequency protection in accordance with the above requirements, does not reduce the effectiveness of anti-islanding protection where this is necessary to comply with relevant Australian Standards.

Please refer to Section 6B for provision of information on battery storage facilities (if relevant).

Part 4 – Description of connection request and generator operation

(ie designed to reduce/offset customer consumption or dedicated generation connection).

Estimated commissioning date(s)

Other information such as amount and timing of power required during construction or any auxiliary power requirements

Part 5 – Detailed site information – new electricity connections

Distance from TasNetworks' existing electricity supply to proposed connection metres.

Pole Identification No.

How much of this distance is on:

Your Property

Metres

Public Road

Metres

Neighbours Property

Metres

Underground

Metres

Overhead

Metres

Diagram attached

Yes

No

Description of likely route of line and possible obstructions

No trees

Some trees

Heavily treed

Flat

Undulating

Hilly

Water

Rock

Railway

Highway

Buildings

Transmission Tower

If new line is to cross a neighbour's property, are they likely to grant an easement?

Yes

No

If no please provide other details

Have you discussed the easement with your neighbour?

Yes

No

Proposed maximum demand

amps

Part 5b – Detailed site information – existing electricity connections

My existing electricity connection is:

Underground Length of your underground mains

Overhead Pole Identification No. Length of your overhead service wire

Voltage measured at the existing installation prior to connection modifications: volts

Date and time of voltage measurement:

Are voltage measurements available from onsite data logging: Yes/No Yes No

Existing maximum demand amps

Part 6 – Generator Details

Generator type Photovoltaic

Other (please describe)

Number of modules Manufacturer

Rated output (watts per module) Connection and protective equipment incorporated Yes No

Inverter Manufacturer

Inverter model no Inverter rating kW

Inverter rating kVA

Power factor: Lagging/leading or under-excited/over-excited

(The inverter reactive power control is to be set at '0.9 lagging' or '0.9' under-excited or absorb VARS)

Inverter phase/s Single phase 3 phase

All embedded generators:

-10kW and over connecting to LV supply must use a 3 phase inverter

-Under high risk of generating over-voltages (as advised by TasNetworks) should connect to the LV supply using a 3 phase connection

Inverter over-voltage trip setting and time delay: V/ sec

Inverter under-voltage trip setting and time delay: V/ sec

Inverter over-frequency trip setting and time delay: Hz/ sec

Inverter under-frequency trip setting and time delay: Hz/ sec

Number of inverters

AS4777 Grid C Connection of Energy Systems via Inverters Certificate Number

Will you register with the Australian Energy Market Operator (AEMO)? Yes No

Provide generator machine type details i.e. induction, synchronous, etc.

Wind Gas Diesel Water turbine Micro turbine

Other (please describe)

Number of modules Manufacturer

Rated output (watts per module) Connection and protective equipment incorporated yes No

Inverter Manufacturer

Inverter model no Inverter rating kW

Inverter phase/s Single phase 3 phase Inverter rating kVA

All embedded generators:

-10kW and over connecting to LV supply must use a 3 phase inverter

-Under high risk of generating over-voltages (as advised by TasNetworks) should connect to the LV supply using a 3 phase connection

Number of inverters

Will you register with AEMO? Yes No

AS4777 Grid C Connection of Energy Systems via Inverters Certificate Number

Provide generator machine type details i.e. induction, synchronous, etc.

Preferred site location, listing any alternatives in order of preference

Maximum power generation and / or demand of whole plant

Maximum kW and / or kVA, or average over 15 minutes or similar

Expected energy production or consumption in kWh per month

Nature of any disturbing load – size of disturbing component kW/kVA Duty cycle

Nature of power electronic plant which may produce harmonic distortion

Part 6b – Energy Storage (battery) Details

Will the embedded generation system incorporate battery storage? Yes No

If Yes, please provide the following details:

Battery manufacturer:

Battery nameplate rating information:

Total energy storage: kWh or Ah

Battery terminal voltage: Volts

Battery rated current: Amps

Number of individual cells:

Battery control unit (including charger):

Manufacturer:

Model number:

Firmware version (if known): and date:

Battery interface to generating system:

Connected to DC bus with DC/DC converter for battery control: Yes No

Connected to AC bus with AC/DC converter for battery control: Yes No

Common converter used to connect both battery and generating system (single control unit): Yes No

Other (please describe)

Part 7 – Connection equipment

The generator system owner/s shall install all equipment in accordance with all relevant Australian standards and as outlined in the system details. All equipment shall be operated in a safe and reliable manner.

The generator system owner/s shall inform TasNetworks about any changes in the system details provided in the application.

Each party shall be responsible for the operation and maintenance of the equipment owned by it and must maintain such equipment in accordance with good electricity industry practice (as defined in the Tasmanian Electricity Code and Australian Standards).

The parties shall comply with all instructions, directions or powers of the System Controller (as defined in the Tasmanian Electricity Code) in relation to all connection equipment.

Part 8 – Electrical contractor details

Contact name of electrical contractor (if applicable)

Business name of contractor

ABN

Postal address

Suburb

Postcode

Contact phone

Mobile

Contact email

Installer Details

Contact name of solar installer

Business name of installer

ABN

Postal address

Suburb

Postcode

Contact phone

Mobile

Contact email

Part 9 – Customer signature or agent authority

Customer/Signature

Date

Applicant Signature (other than customer)

Date

Full name and title

Additional Information:

Attachment – single line diagram of generator system

Example single line diagram: single phase 5kW solar PV array SLD

