

scanPOWER

DISTRIBUTED GENERATION WITH A CAPACITY OF 10kW OR LESS

INFORMATION FOR CONNECTION AND OPERATION

Connecting distributed generation with capacity of 10kW or less

The following information is for people who wish to connect distributed generation systems with a capacity of 10kW or less to Scanpower's distribution network and possibly export electricity into our network.

These systems are likely to be installed at residential or small commercial premises and are either single or three phase.

Separate conditions and procedures apply to generating installations of 10kW or larger.

Talk to us first about your proposed distributed generation

Scanpowers' intention is to assist you to understand our requirements and work through the steps you will need to take prior to connecting your generator to our network. You need to involve us in the process as early as possible.

Distributed generation must meet all relevant statutory and regulatory requirements and comply with applicable safety standards. If you connect distributed generation to our network it is a mandatory requirement that safety equipment and procedures must be in place to ensure safe interaction between your distributed generator and our network.

The process adopted by Scanpower conforms with the Electricity Governance (Connection of Distributed Generation) Regulations 2007. Please refer to the Electricity Commissions website: www.electricitycommission.govt.nz.

Process to connect distributed generation of 10kW or less to Scanpower's network

The following information outlines the steps you will need to take to connect distributed generation of 10kW or less to our network. This information complies with the Electricity Governance (Connection of Distributed Generation) Regulations 2007 (the Regulations).

Selecting your generation system

Generally distributed generation systems of 10kW or less are solar powered (photovoltaic panels) however small wind systems and micro-hydro generators can also be used.

Connection to our network must be safe and must not interfere with the quality of electricity supplied to other connected parties.

You must ensure that your generator system fully complies with the following standards:

AS 4777.1 Grid connection of energy systems via inverters – installation requirements.

AS 4777.2 Grid connection of energy systems via inverters – inverter requirements.

AS 4777.3 Grid connection of energy systems via inverters – grid protection requirements.

The above standards apply to distributed generation systems that are connected to an electricity network via inverters. While they primarily focus on solar panel systems, they can also be applied to other generator types.

Inverters can interfere with the reliable operation of the network or can affect plant and appliances of other connected parties. Therefore we require all inverter connected generators to be approved by an Australian or New Zealand independent test house.

Copies of these standards are available from the standards NZ website www.standards.com.au.

Contact your electricity retailer

You must contact your electricity retailer and discuss with them your proposed distributed generation system as any surplus electricity which is generated may be sold to them. Unless you have contractual arrangements for purchase of any surplus electricity generated, and an electricity retailer responsible for the connection, you will not be able to connect to our network.

Notify Scanpower

Once you have decided on your generating system and had discussions with your electricity retailer you should contact us. You will need to complete an application form (attached) together with the detailed information requested in the form. We need to know such things as, the location, type, size and specification of your proposed distributed generation system, plus the name of your registered electrician who will be installing your system. We also need to know which electricity retailer is responsible for your connection.

Any agreement to connect distributed generation to our network may include costs associated with the design and reinforcement of the existing network. If network reinforcement is required the design and schedule for this project work will need to be factored into your installation planning.

Your application should be accompanied by the prescribed application fee as prescribed in Schedule 5 of the Regulations.

Confirmation that your application is complete

Within 5 business days of receiving your application we will advise you in writing whether your application is complete.

Decision on your application

Within 30 business days of receiving your completed application we will give you written notification of our decision to approve or decline your application. If Scanpower is unable to respond within this timeframe we will inform you as such and request an extension of another 20 business days. You must not connect your distributed generator to our network without our written permission.

If we decline your application we will provide a detailed explanation for our decision and what changes are required to make it eligible. If you disagree with our decision a dispute resolution process is provided in Schedule 3 of the Regulations.

If you are eligible to connect we will advise if there are likely to be any additional costs associated with the connection.

Even though you will be generating and selling your own electricity you may be required to pay an additional line charge. This will depend on the nature of your installation and the agreement reached regarding payment for additional work required on our network that results from your installation. Any such charges will need to be agreed prior to connection and may be billed to you directly or via your electricity retailer as an additional line charges.

Your intension to proceed

After we approve your final application you have 10 business days (or a mutually agreed longer period) to notify us in writing that you intend to proceed with the distribution generation connection.

Connection of generation

We have 30 business days to negotiate a connection contract with you after you notify us in writing of your intension to proceed. The terms of the contact will be as set out in Schedule 2 of the Regulations.

Metering

As a generator of electricity you are responsible for your metering installation. Your electricity retailer will arrange this for you. When you contact your electricity retailer they will advise you on the appropriate metering requirements for measuring the electricity imported and exported.

Installation

Installation must be carried out by a qualified tradesperson to ensure compliance with all relevant building and electrical codes and standards. All wiring associated with the system must be carried out by a registered electrician and comply with AS/NZS 3000 or any successive standard or legislation. A copy of the Certification of Compliance will be required before the installation can be connected to Scanpower's network.

Your generating system needs to comply with the previously mentioned AS 4777.1 to 4777.3 standards to ensure that our network's safety requirements are met. Systems that comply with these standards are classified as 'non-islanding' systems. This means that your generator will automatically isolate itself if there is a power outage on the Scanpower distribution network upstream from your point of supply. It also means that your system will not reconnect to the network until we have restored the supply. We also require your inverter to be sealed so as to restrict any adjustment of the protection provisions. Access will be by means of a lockable isolation switch which will be restricted to Scanpower representatives. This provision will enable a Scanpower line mechanic to isolate a section of our network so that he can work on it without your generator feeding electricity into it.

Testing and inspection before connection

Prior to connecting your distributed generation to our network as a minimum you must:

- (a) test and inspect your distributed generation;
- (b) provide adequate notice of the tests and inspection in order for Scanpower to send a qualified representative to site for observation purposes;
- (c) provide us with a written test report after testing and inspection.

Operating the distributed generation

Scanpower may request inspection of the site from time to time to ensure that the installation remains safe and that other connected parties will not be adversely affected.

If you wish to make any changes to your distributed generation installation you will be required to submit a new application for connection using the prescribed form.

Scanpoweres wish to acknowledge the assistance of Orion and WEL Networks in the preparation of this information.