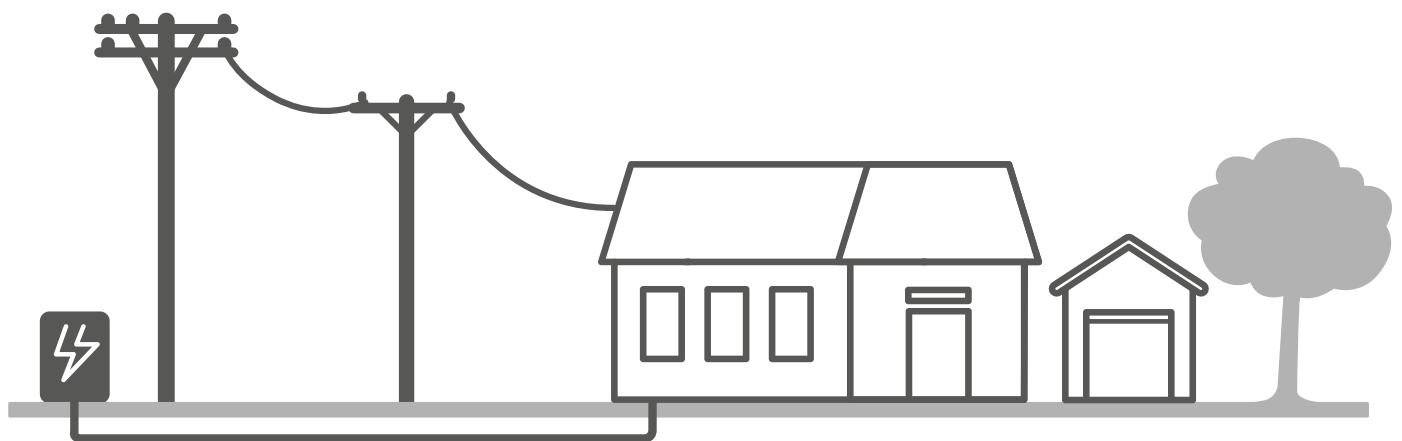


Technical Guide: New Connection Requirements

This is a glossary of common technical requirements, taken from Northpower's Service Connections Standard, and related documents.

Further information can be obtained from Northpower's Customer Care Team at: customercare@northpower.com or on our website at northpower.com



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Standard Supply

Urban Single Phase, 230V, 60A

Rural Two or three Phase (60A capacity across phases)

Application for a new connection

An Application for Work form can be found at northpower.com/forms/application-for-work, please fill this out and submit to Northpower for assessment and approval of your connection and/or BTS before proceeding.

Network Connection Works –

Network connections can only be made by a Northpower Approved Contractor. Refer to Northpower's website for a current list of Northpower Approved Contractors.

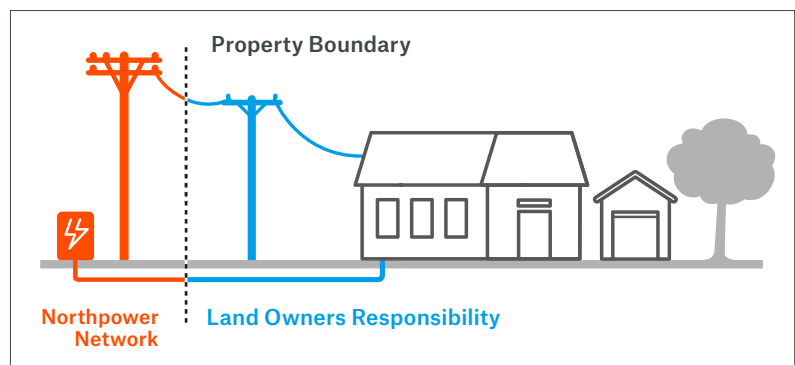
Network Point of Connection

This will be determined by Northpower. Isolation of any ICP (installation control point) must be possible without affecting the delivery of supply to any other ICP or the integrity of the network.

Point of Supply

This is the point where ownership of the equipment changes between Northpower and the customer.

Typically this is at the property boundary, but can vary so please check with the Northpower Customer Care Team.



Larger Capacity Connections

Where a connection capacity larger than the standard supply is requested, Northpower will determine whether this is available from the existing network or if any upgrade is required. The customer may be required to contribute towards the cost of works for installing a larger connection.

Builders' Temporary Supplies (BTS)

These must be located on property owned by the customer and must be metered.

LV Service Pillar (or underground pillar) Connection

Underground cable connections can be made at the low voltage service pillar (or underground pillar) where it is installed at the property boundary and on the same side of the road as the new connection.

Where a lot is being subdivided and the lot is not immediately adjacent to an existing service pillar (pole, or underground pillar), a new service pillar (pole or underground pillar) will need to be established at the property boundary.

LV Pole-top Connection

Where the low voltage network is overhead, customers may, (with prior approval from Northpower,) be connected via a Service cable from a fuse at the pole top.

The installation of cable up the pole and the connection to the fuse must ONLY be done by a Northpower Approved Contractor.

Customer Service Mains

The customer generally owns the electricity cable (or line) within their property boundary. The cables must comply with AS/NZS3000. The neutral conductors should be the same size as the phase conductors.

In general, service cables should be run to the boundary with sufficient spare length for the Northpower Approved Contractor to reach the approved network point of connection (i.e., pillar, pit or pole top connection). Do not push cables into pillars, please take right up to side of pillar, cap off and leave for the Northpower Approved Contractor to connect.

Multiple Tenancy Installations

Each tenancy must be able to be isolated separately and have its own ICP identifier.

Applications for multiple tenancy installations need to include information on capacity, fusing and isolation and a site/building layout.

Metering

The installation (and ownership) of metering is organised by the customer's electricity retailer, and is required prior to the connection being livened.

In some cases the meter installation contractor may also be a Northpower Approved Contractor - these contractors can inspect, install meter and liven the connection.

The bottom of the metering enclosures must be a minimum of 1.2 metres above the finished ground / floor level. Incoming and outgoing cables should be through the base of the enclosure to offer maximum protection from water ingress and the possible spread of fire originating within the enclosure.

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Load Control

All new installations with suitable interruptible loads shall be capable of being controlled by Northpower's load control system through and approved ripple receiver or relay.

Load Power Factor

The power factor of a customer's load, measured at the metering point, shall not be less than 0.95 (lead or lag). A guide to the required capacitance to meet the 0.95 power factor is available from Northpower.

Motor Starting

AC motors of up to and including the following sizes may be started direct on-line without specific permission:

Urban residential:	Single Phase 0.55kW, Three Phase 1.1kW
Urban non-residential:	Single Phase 0.75kW, Three Phase 1.1kW
Rural:	Single Phase 0.75kW, Three Phase 2.2kW

Distributed Generation Connections and exporting electricity

Customers wishing to install generation (ie Solar, Wind) that can export electricity to the network need to get prior approval from Northpower.

There are strict safety and technical requirements that must be met prior to livening, which can only be done by a Northpower Approved Contractor.

The customer must also organise with their retailer for the installation of import/export metering and purchase agreements for any exported electricity.

Refer to Northpower's website for an application and requirements for connecting Distributed Generation: northpower.com/forms/distributed-generation-application