

Northpower Electricity Network Standard

Supply Options for Collective Residential Developments

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Document Purpose

This standard details Northpower Networks requirements for electricity supplies to collective residential developments

1. Introduction

This document summarises Northpower's approach to supplies for collective residential developments. (Similar principles apply to shopping malls and industrial parks.)

The document is intended to provide a basis for Northpower staff quoting for options to developers. It may also be sent to developers directly to provide information on the options available.

2. References

Reference	Details
ENS 2.1.85	Asset Ownership Identification and Demarcation
ENS 5.1.10	New Connections
ENS 5.2.20	Unmetered Electricity supplies
ENS 5.2.36	Supply Options For Low Voltage Customers

3. Two general options are available:

1. If Northpower owns the local reticulation from each transformer to the individual points-of-supply (for each lot, building or similar), then each point-of-supply must be separately metered. Each separate metering point would be an individual Installation Control Point (ICP) and would attract a daily supply charge plus the variable charges.
2. If a company (or individual) other than Northpower owns the local reticulation from the transformer to each individual lot, building or similar, then a single meter can be installed adjacent to the transformer or at some other convenient point near the end of the Northpower reticulation to meter the total load. This is known as the "gate meter" or "embedded network" approach. Under the Electricity Industry Participation Code for embedded networks, only one ICP can be created for the entire embedded network, unless the retailer supplying the embedded network agrees to the creation of separate ICP's within the embedded network.

4. There are restrictions on the ownership of electricity reticulation

Generally reticulation along public roadways can only be owned by approved network operators. There are limitations on companies owning electricity networks and selling electricity to others. That was why Northpower was required to sell its electricity retailing business.

5. Conductors must be sized to maintain adequate voltage regulation

As well as considering the current rating, it is important to calculate the voltage-drops under maximum load to ensure they do not exceed legal limits. The legal requirement is to provide a voltage within 6% of the nominal voltage at the point-of-supply and there is a further allowance of 5% voltage drop from that point to the individual appliances.

6. Service lines to be appropriately fused

The Northpower service fuses are intended to provide fault protection for the service line and should not be relied on to provide overload protection for the service line or the installation. The installation owner is responsible for providing overload protection (fuse or circuit-breaker) for each service line.

7. Capacity charges do not generally apply on the Northpower network

Northpower's standard range of pricing options for domestic and small business installations are independent of the capacity and fusing of the supply. (Some line companies charge on the basis of a 60 amp supply or a 100 amp supply, but this is not the case in the Northpower area). Large commercial and industrial supplies are charged on the basis of capacity utilised, but this would not generally be applicable to a residential development.

8. More line charge options are available to individually metered dwellings

A mix of domestic 24-hour and controlled tariffs is available to individually metered domestic dwellings. The "low-use" pricing option is restricted to individually metered domestic dwellings. This "low-use" option was established in response to a government directive for line companies and electricity retailers to offer a domestic pricing option with a low fixed daily charge to benefit customers with low consumption. This is especially suitable for eco-developments and people who live alone. Northpower and most of the electricity retailers currently offer a "low-use" pricing option.

Metering points that are not installed at "a place of residence", as defined in the Electricity Industry Reform Act 1998, will be charged non-domestic line charges. This includes "gate meters", pumps and all commercial installations.

The full range of Northpower's line charges is published on the northpower.com web site under "Disclosure / Line Charges".

9. Metering charges are included in the line charges

The metering charges are included as one component of Northpower's daily line charges. There is no additional charge for current transformer (CT) metering at a single "gate meter", provided the peak load justifies CT metering instead of whole-current metering. Northpower provides the meter, CT's and testblock. It is the customer's responsibility to provide the accommodation for the metering, including a separate CT chamber.

10. Responsibility for maintenance of local reticulation and service lines

Maintenance of privately owned reticulation is the responsibility of the owner. Northpower can undertake repairs and maintenance on normal commercial terms.

Similarly, the maintenance and safety of the service line (or cable) beyond each point-of-supply is also the customer's responsibility.

New reticulation and equipment owned by Northpower, or for which Northpower has responsibility for maintenance, which are installed on private property, must be protected by suitable electricity and telecommunications easements unless it is for the exclusive use of the property it is located in.