

POLICY FOR CONNECTION OF NEW LOADS TO THE DISTRIBUTION NETWORK

Effective 1 May 2013



1. BACKGROUND

Nelson Electricity Ltd (NEL) has revised the commercial terms for connecting New Loads to the distribution network.

This policy focuses on the impact New Loads have on the network given their size and location. In general terms the policy concludes that:

- New Loads remain responsible for the incremental costs associated with their specific Connection Assets and Network Extensions.
- NEL, in most but not all circumstances, will fund augmentation expenditure caused by New Loads.

This Policy for Connection of New Loads is effective from **May 2013**.

2. OBJECTIVES

NEL's key commercial objectives when connecting New Loads are:

- To apply a fair and equitable policy
- To follow good industry practice
- To apply efficient pricing principles that reflect the economic costs of our delivery service

3. NEL SUPPLY OBLIGATIONS

NEL is committed to maintaining and renewing the existing distribution system in all geographical areas and is confident this can be achieved within existing line pricing policies and regulatory constraints.

NEL has no legal requirement to connect any New Load to the network however the company will make new capacity available wherever possible provided it can be supplied on a reasonable economic basis.

There may be some instances where connection of New Loads to the network would be imprudent because it is completely uneconomic or technically impractical.

4. DEFINITIONS

New Load

New Load is a generic term referring to any proposed:

- New connection to the network
- New subdivisions/developments to be connected to the network
- Increase in capacity required at an existing connection
- Reactivation of connections that have been de-energised and
- inactive for a period of greater than six months.

Network Connection Application (NCA)

New Loads requiring new supply capacity, or a new connection must complete and submit a written Network Connection Application to NEL for approval. The NCA form is available on NEL's website.

Customer Connection Assets

Customer Connection Assets are the customer specific connection assets typically located within the customer's property boundary. Commonly they are referred to as customer mains or service lines and all responsibilities relating to ownership, maintenance and replacement remain with the customer. Customer Connection Assets exclude all Network Extension Assets and NCP fuses.

Network Extensions

Network Extensions are new "Works" necessary to achieve connection between the distribution network and the Customers Connection Assets. In some circumstances Network Extensions will have to be located within private property boundaries and be secured by easements in favour of NEL. Network Extensions assets include the customer service (NCP) fuse. Network Extensions are normally designed and built by independent line contractors, funded directly by the New Load and are then vested with NEL on completion, prior to connection and livening.

Network Augmentation

Network Augmentation means new "Works" to enlarge or strengthen the existing network system in order to increase its ability to distribute electricity so the new capacity demands from New Loads can be serviced.

Augmentation Area

That part of the distribution network system between the zone substation (or GXP) and the Linkage Point.

Linkage Point

The Linkage Point is any point on the distribution network system where use of the network system is shared with another NCP of Group 1 size or greater. At the Linkage Point, network assets are no longer dedicated to the service of just one NCP. Determination of the Linkage Point is at NEL's absolute discretion.

Customer Vested Assets (CVA)

CVA relates to specific Network Extension Assets put in place and funded by a customer to service their new capacity requirements; the ownership of which is usually vested with NEL. After vesting NEL assumes all obligations relating to

maintenance, faults, operations, compliance, ownership and replacement of the assets.

Customer Capital Contribution (CCC)

The CCC is a cash contribution paid by a New Load to NEL when specific Network Augmentation expenditure is required to service the new capacity or security requirements demanded by the New Load. NEL treats Customer Capital Contributions as capital receipts that are non-assessable for tax purposes. While NEL records Customer Capital Contributions as revenue in financial accounts, for regulatory purposes NEL must deduct the Customer Capital Contributions from the cost of the associated Network Augmentation Assets taken into the RAB.

NEL Capital Reimbursement Allowance (NCTRA)

The NCTRA is any allowance made by NEL to a customer in reimbursement, in whole or in part, against a Customer Capital Contribution or Customer Vested Assets. The NCTRA reflects future economic benefits NEL may derive from the New Load or the vested asset.

That part of any Customer Vested Asset funded by an NEL Capital reimbursement is brought into the RAB and can be depreciated. The Reimbursement is not tax deductible for NEL and is treated as a capital item in tax and regulatory statements. For financial reporting NEL Reimbursement Allowances are netted against Customer Capital Contribution revenue.

Exceptions

Exceptions consider New Load size and location relative to local network capacity and include:

- a) Any New Load that requires NCP fusing of 70 kVA (nominally 100 amps) or greater

New Loads that are Exceptions may face Customer Capital Contributions determined by individual economic assessment.

Connection Fee

The Connection Fee is a standard fee payable by New Loads as part of the Network Connection Application process. The connection fee provides for a partial recovery of NEL's administration costs associated with bringing New Loads onto the network.

NEL records the Connection Fee as revenue for regulatory, tax and financial reporting purposes.

ICP Identifier

The unique identifier given to each Network Connection Point (NCP).

NCP

The Network Connection Point is the demarcation point at which asset ownership and responsibility changes from Nelson Electricity Limited to the consumer and is usually signified by the installation of service fuses.

Electrical "Works"

As defined in Section 2 of the Electricity Act 1992, but generally refers to those network assets on the network side of the customer's property boundary but also

includes those Vested Network Extensions which in some circumstances are located inside the customer's property boundary.

Regulatory Asset Base (RAB)

The value of NEL's distribution system fixed assets on which the NZ Commerce Commission allows NEL to recover depreciation and to earn a normal regulated rate of return via its line charges.

5. GENERAL COST RESPONSIBILITY POLICY

5.1 Customer Connection Assets

All New Loads, regardless of locality, will procure and fund all Customer Connection Assets necessary to service their new capacity requirements. The responsibility for ownership, operation and maintenance for connection assets normally remains with the New Load.

5.2 Network Extensions

All New Loads, regardless of locality, will fund any new Network Extension or any reinforcement required to their existing Network Extension below the Linkage Point.

New Network Extensions are normally vested with NEL on completion.

A Capital Reimbursement Allowance (see Section 11) may be offered where NEL determines it will derive future benefits from the proposed Network Extension once it is vested. NEL's Reapportionment Policy also normally applies to these assets should another New Load(s) propose to use and derive benefit from a Customer Vested Network Extension in the future.

5.3 Network Augmentation

As a general rule, NEL will fund Network Augmentation of HV and LV lines/cables and other upper network assets plus provide and install transformers and switch gear on the shared network, above the Linkage Point. However where a New Load triggers one of the Exception conditions (see Section 6), it will face an individual economic assessment and as a consequence may be treated differently for attribution of Network Augmentation costs.

6. EXCEPTIONS

New Loads that are of large size relative to the available local network capacity will be treated as Exceptions to the general policy with respect to Network Augmentation

6.1 Exceptions are defined as:

New Loads require a supply capacity of 70 kVA (100 amps) or greater.

6.2 Exceptions Policy

Where a New Load triggers an Exception condition *AND* it forces additional Network Augmentation expenditure it will be subject to an individual economic analysis to determine what Customer Capital Contribution, if any, should apply.

6.3 Customer Capital Contribution Assessment Applied to Exceptions

Where an individual economic analysis is used to determine the Customer Capital

Contributions for an Exception the following factors will be taken into account:

- a) The incremental Network Augmentation costs caused by and attributable to the proposed New Load, including any additional costs associated with bringing forward the date for capital expenditure already proposed in NEL's Asset Management Plan.
- b) An allowance for the present value (PV) of the expected future incremental line charge revenue attributable to the New Load, given its type and locality. The calculation will allow for any additional operating and transmission costs and tax
- c) Any known benefit NEL or other consumers may derive from the Network Augmentation expenditure (NTCRA)

Customer Capital Contribution assessments can be summarised by the following formula:

$$\text{CCC} = \text{Incremental Augmentation Cost} - \text{PV of future net revenue} - \text{NTCRA}$$

7. SUBDIVISIONS – INDUSTRIAL AND RESIDENTIAL

7.1 General

Reticulation standards effective at the time of the development will apply. No reapportionment will apply to vested electrical "Works" should any other developer use them in the future.

7.2 Subdivisions

Large Subdivisions - 6 lots or more

NEL will contribute to the cost of the high voltage (>400V) cables and the transformer supply and installation for subdivisions that are vested, are 6 lots or more and have an average lot area of less than 600 square metres; NEL's contribution will not include any civil works associated with the supply and installation of the electrical works.

The developer, in all instances, will fund the installation and connection of the low voltage (<400V) circuits, services boxes, streetlights and other works beyond the transformer.

Small Subdivisions – 5 lots or less

For subdivisions that are vested and are 5 lots or less, the New Load is required to fund and arrange the entire electrical reticulation for the development except that NEL will provide the transformer/s (subject to Section 8) and any necessary 11kV switchgear ex stock.

8. PROVISION OF SUBSTATIONS / TRANSFORMERS

8.1 Upgrade of transformers that are shared

Where a New Load can be supplied from an existing transformer, at or above the Linkage Point, NEL will meet the cost of upgrading that transformer should it be necessary. The design of any upgrade shall be at NEL's discretion.

8.2 Upgrade of transformers that are dedicated

Where the transformer site is dedicated, the New Load will meet the installation or alteration costs. NEL will provide the new transformer ex-stock.

8.3 Installation of an additional transformer at a new site

Regardless of easement requirements for New Loads, if the New Load can be supplied from an existing transformer site within regulatory voltage standards using cable identified in the NEL Design and Construction Standards, then NEL will require the New Load to either:

- Reticulate back and connect to the existing transformer site OR
- Where the customer requests a different transformer site, make a one-off contribution towards the purchase, installation and maintenance cost of the new transformer.

9. EASEMENTS

Any easements deemed necessary by NEL must be legally registered before any NEL Capital Reimbursement Allowance will be paid or any Network Extension or Augmentation can be connected and lived. The New Load will arrange and fund the costs of providing an easement and the easement must provide terms and conditions that satisfy NEL's normal requirements.

10. REAPPORTIONMENT

Reapportionment will apply to customer-funded Network Extensions and Augmentations in accordance with NEL's standard terms and conditions. This is covered by a separate policy document.

11. SPARE CAPACITY

Where Network Augmentation or a Network Extension is determined to provide future spare network capacity that is beneficial to NEL, costs may be pro-rated between NEL and the New Load based on the ratio of the useful spare capacity to the total new capacity provided; NEL will have the final determination. The future benefits to NEL are allowed for in the NTCRA calculation referred to in Section 6 where the New Load triggers an Exception condition and faces an individual Customer Capital Contribution assessment.

12. CAPACITY RE-ASSESSMENT

Where the fused capacity for a new NCP is found to exceed actual requirements and the installation could be accommodated with a smaller NCP fused capacity then NEL will, at its discretion, refund on a pro-rated basis the respective Customer Capital Contribution or Network Development Levy, provided the relevant NCP fuse size reduction is completed within six months from the start date of original capacity increase requested by the New Load. Capacity changes for seasonal loads will not be eligible for refunds. However, where NEL has undertaken Network Augmentation specifically to service the New Load any refund will depend on NEL's ability to re-use the Network Augmentation elsewhere to service other customers.

13. RE- ENERGISATION OF ICPS

Where an existing ICP is de-energised and inactive, NEL will allow re-energisation of the

ICP on customer application without any further Customer Capital Contribution or Network Development Levy provided no more than six months have lapsed since the date the ICP became inactive.

After the six month period has lapsed, NEL may at its discretion:

- remove the service mains from its network and remove redundant network assets including any transformer dedicated to that consumer; and/or
- make available the spare capacity from the inactive ICP to other customers.

In either case, after six months has elapsed, if a New Load seeks capacity at the original ICP site again, it will be treated as an application for a new supply whereupon a new Customer Capital Contribution or Network Development Levy will apply.

14. INDEPENDENT CONTRACTORS AND CONTESTABILITY

NEL does not own or operate its own electrical contracting business. Instead, there are a number of independent line contracting companies currently approved to undertake work on NEL's distribution system (see NEL website "Network Connection Application"). Any of the approved contractors can quote for design and construction of Network Extensions and customer Connection Assets provided they are able to meet the conditions set out for the proposed work, i.e. the magnitude, shutdown times, live line work, requisite skills and competencies for the type of work, etc. NEL will have the final decision on the suitability of the contractor and the work standards required. NEL will not be responsible for time delays, cost escalations, force majeure, etc.

15. SPECIFICATION

For avoidance of doubt all Customer Connection Assets, Network Extensions and Network Augmentation must fully comply with:

- NZ Electrical Standards
- NEL's Distribution Code, and
- All relevant local authority requirements
- All relevant Legislation, Regulations, Codes of Practice and Electrical Guidelines

NEL will determine and approve the technical design for all network assets above the NCP.

The customer can choose all Customer Connection Assets within their property boundaries below the NCP as these assets remain the property and responsibility of the landowner.

Where new Network Extension assets are vested with NEL, NEL will determine the specification of those assets by reference to current NEL standards, local authority engineering codes and legislation. NEL will also take responsibility for the long-term operation, maintenance and replacement of all vested assets.

16. SERVICE FUSES

Any new fusing required will be at the cost of New Loads because NCP fuses are a component part of Network Extension assets. NCP fusing is vested with and thereafter controlled by NEL.

NEL will, at its discretion, fund the renewal of existing NCP service fuses to an HRC standard when required and where opportunities become available, i.e. through fault conditions, revenue protection investigations, or voltage complaint investigations.

17. CONNECTION FEE

Currently NEL does not apply a Connection Fee to any new connections.

18. NEL RESPONSE TIME FRAMES

NEL will respond to a written Network Connection Application within three business days of receipt. The response will take one of the following forms:

- approval to connect the New Load, OR
- a request for additional information concerning the New Load, OR
- a notification that the application has been received and that NEL will have to undertake a detailed analysis of both the technical feasibility of servicing the New Load and the cost any Network Augmentation caused by the New Load
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When a detailed analysis is required, NEL will provide a response back to the New Load within 15 working days of receipt of the Network Connection Application.

Where NEL fails to meet the time frames stated above it will waive any subsequent Connection Fee for the New Load.

NEL strongly suggests New Loads do not make capital expenditure commitments reliant on new electrical capacity before their NCA for new capacity has been approved and released and all costs associated with connecting the New Load have been advised by NEL.