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# Nelson Electricity Limited – Pricing Guide

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This document is to provide Electricity Retailers and other Interested Parties assistance in the application of the charges for delivery of line function services on the Nelson Electricity Network. The information will also assist to interpret the Nelson Electricity ICP information contained on the Electricity Registry (Registry).

The information contained within this document is for the term 1 April 2018 to 31 March 2019 unless a re-evaluation loss factors prior to the end of term in which all affected parties will be notified of any changes.

## Load Groups

NEL has split its consumers into five distinct consumer Load Groups to assist in the fair allocation of costs and setting line price levels. The Groups are based on the type of connection which considers typical load patterns, fuse size and annual kWh consumption. The number of groups is set at five as a balance between minimising complexity and ensuring costs are appropriately apportioned between consumers. The groupings are relatively in line with other electricity networks in New Zealand.

- **Load Group 0**  
Unmetered Load or Metered Builders Temporaries - this group is for the smaller/lower sized fused connections (under 15kVA) either metered or unmetered that do not fall into the other groups as listed below. Most of the connections are either metered builders temporary supplies or small unmetered supplies to telephone boxes and streetlights. Builders Temporary supplies are to be fused at no greater than single phase 30amps (7kVA) otherwise they will have to be Load Group 2.
- **Load Group 1**  
Residential Consumers Low Fixed Charge Option – connections that are a residential home that exhibit a typical residential load profile using less than 8,000kWh per year. A residential connection is where electricity is supplied to a premise that is used or intended for occupation by a person principally as a place of residence. It does not include premises that constitute any part of premises described in Section 5(c) to (k) of the Residential Tenancies Act 1986 (which refers to places such as jails, hospitals, hostels, hotels, and other places providing temporary accommodation). The connection size is set at 15kVA. The Nelson Electricity Limited (NEL) Network Code allows for single phase 60amp, two phase 40 amp or three phase 30amp supplies to be classed as a residential connection. A residential type load profile not on the Low Fixed Charge option are typically categorised as Load Group 2.
- **Load Group 2**  
Residential and Small Commercial Consumers – connections that are 15kVA up to 150kVA. Residential consumers not on Low User Option are also in this group. The residential and commercial consumers are grouped together as much as Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 allow. While there is a difference in load profile from a typical commercial and a residential

connection it is proving more difficult as time goes on to differentiate between the two as many connections are a mixture of the two. To avoid complications in grouping allocations and number of tariffs, Load Group 2 joins the two consumer types together. By doing this it has removed any price discrimination which existed when commercial and residential were grouped separately.

- **Load Group 3**

Large Commercial Consumers with supply up to 2400kVA - this group is for any commercial connection with a supply up to 2400kVA. There is a mandatory requirement of connections with a capacity of greater than 150kVA to be Load Group 3 and have Time of Use metering installed. Those below that limit can opt to be on Load Group 2 or Load Group 3. This group is ideal for consumers that have the ability to manage their peak demand to minimise line charges as the line charge regime for this group more accurately reflects the consumer's fair allocation of costs.

- **Load Group 4**

This group is for the largest commercial consumers on the network. Consumers with capacity supplied of greater than 3000kVA with supply from dedicated 11kV/400V substations.

## Registry Pricing Codes, 1 April 2018 - 31 March 2019

### Price Codes

This section describes what code should be input into the Registry – “**Distributor Price Category Code**” field as well as the Pricing Codes to be used in the EIEP1 files.

#### Load Group 0

**Distributor Price Category Code = 0**

#### **Builders Temporary (7kVA)**

*Any builders temporary supplies with a connection of no greater than 7kVA or single phase 30 amps can be allocated these price codes. All connections greater than 7kVA must be placed in Load Group 2.*

#### **Price Codes**

0-BT-Fixed	- Mandatory
0-BT-24hr	- Mandatory

#### **Unmetered Connection**

*These price codes are used for small unmetered supplies e.g. telephone boxes and private streetlights.*

#### **Price Codes**

0-UM-Fixed	- Mandatory
0-UM-kW	- Mandatory

#### **Streetlighting (Council)**

*This Price Code is only used for one ICP which represents all public street lighting on the Nelson Electricity network.*

#### **Price Code**

0-SL	- Mandatory
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## **Load Group 1**

**Distributor Price Category Code = 1**

### **Residential Low Fixed Charge**

*Load Group 1 ICP's **must** use the 1-Fixed and 1-24hr codes. The fixed charge is based on the connected capacity which is input in the "Chargeable Capacity" Field in the Registry. The 1-Water and 1-Night are optional depending on whether there are controllable loads and type. It is mandatory to include 1-DG if there is Distributed Generation installed on site. It is possible to use all codes for one connection.*

#### **Price Codes**

1-Fixed	- Fixed charge	- Mandatory
1-24hr	- Anytime (No control)	- Mandatory
1-Water	- Controlled (Hot water)	- Optional
1-Night	- Night Rate (11pm – 7am)	- Optional
1-DG	- Distributed Generation (Export)	- Mandatory if DG installed

## **Load Group 2**

**Distributor Price Category Code = 2**

### **General - Residential and Commercial**

*Load Group 2 ICP's **must** use the 2-Fixed and 2-24hr codes. The fixed charge is based on the connected capacity which is input in the "Chargeable Capacity" Field in the Registry. The 2-Water and 2-Night are optional depending on whether there are controllable loads and type. It is mandatory to include 2-DG if there is Distributed Generation installed on site. It is possible to use all codes for one connection.*

#### **Price Codes**

2-Fixed	- Fixed charge	- Mandatory
2-24hr	- Anytime (No control)	- Mandatory
2-Water	- Controlled (Hot water)	- Optional
2-Night	- Night Rate (11pm – 7am)	- Optional
2-DG	- Distributed Generation (Export)	- Mandatory if DG installed

## **Load Group 3**

**Distributor Price Category Code = One of (T-03, T-04, T-05, T-06, T-07, T-08, T-09, T-10, T-11, T-12, T-13, or T-15) see Pricing Code below for explanation.**

### **Large Commercial**

*Load Group 3 is for any Commercial connection up to 2400kVA, optional below 150kVA. There are six separate pricing codes to be used for each ICP. The Codes starting with "T" represent the capacity of the connection so only one is used per ICP (the same is used in the Distributor Price Category Code field in the Registry). The billed capacity of the installation is input in the "Chargeable Capacity" field on the Registry. The Codes starting with a "3" are mandatory. The 3-WD Winter Demand is reset each winter and applied from 1 October to 30 September the following year is input in the "Distributor Installation Details" field on the Registry.*

#### **Pricing Codes**

##### **Capacity Charges**

T-03	16kVA – 42kVA	- Select one
T-04	43kVA – 69kVA	- Select one
T-05	70kVA – 110kVA	- Select one

T-06	111kVA – 138kVA	- Select one
T-07	139kVA – 218kVA	- Select one
T-08	219kVA – 300kVA	- Select one
T-09	301kVA – 500kVA	- Select one
T-10	501kVA – 750kVA	- Select one
T-11	751kVA – 1000kVA	- Select one
T-12	1001kVA – 1500kVA	- Select one
T-13	1501kVA – 2000kVA	- Select one
T-15	2400kVA	- Select one
3-Fixed	- Fixed Daily Charge	- Mandatory
3-WD	- Winter Demand (kVA)	- Mandatory
3-24hr	- Anytime (no Control)	- Mandatory
3-PF	- Power Factor Charge (kVAr)	- Mandatory
3-DG	- Distributed Generation	- Mandatory if DG installed

### **Distributor Price Category**

Category Code	Description
0-BT	<b>Group 0</b> Metered Builders Temporary
0-SL	<b>Group 0</b> (Unmetered) Streetlight
0-UM	<b>Group 0</b> (Unmetered) General Unmetered
1	<b>Group 1</b> Residential (Low Fixed Charge Option)
2	<b>Group 2</b> General - Residential and Commercial (15 - 150kVA)
T-03	<b>Group 3</b> Large Commercial 16kVA – 42kVA
T-04	<b>Group 3</b> Large Commercial 43kVA – 69kVA
T-05	<b>Group 3</b> Large Commercial 70kVA – 110kVA
T-06	<b>Group 3</b> Large Commercial 111kVA – 138kVA
T-07	<b>Group 3</b> Large Commercial 139kVA – 218kVA
T-08	<b>Group 3</b> Large Commercial 219kVA – 300kVA
T-09	<b>Group 3</b> Large Commercial 301kVA – 500kVA
T-10	<b>Group 3</b> Large Commercial 501kVA – 750kVA
T-11	<b>Group 3</b> Large Commercial 751kVA – 1,000kVA
T-12	<b>Group 3</b> Large Commercial 1,001kVA – 1,500kVA
T-13	<b>Group 3</b> Large Commercial 1,501kVA – 2,000kVA
T-14	<b>Group 4</b> Large Commercial = 6,300kVA – 11kV Metered
T-15	<b>Group 3</b> Large Commercial = 2,400kVA – 11kV Metered

#### **Notes:**

**Category Code 1 (Group 1)** – Is the Low Fixed Charge Option. This option is only available for residential connections that typically use less than 8,000kWh per year as per the Electricity (Low

Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004. A residential connection is defined as is where the consumers' connection is for a private dwelling (intended for occupation principally as a place of residence) and is not normally used for any business activity.

The "Chargeable Capacity" field on the Registry will be populated with current connected capacity. Currently all residential connections are assessed at 15kVA.

**Category Code 2 (Group 2)** – General. This option is for Residential and Business connections with connections from 15kVA up to 150kVA.

The "Chargeable Capacity" field on the Registry will be populated with current connected capacity. Currently all residential connections are assessed at 15kVA and Business connections are based on actual fuse size at the Network Connection Point as per Table 2.

**Large Commercial Price Category (Group 3)** – The Group 3 is for Large Commercial type connections typically of a connection size greater than 150kVA. The sites must have Time of Use metering installed. The Category Codes used start with a "T" and the two digit number is the Capacity Supply group, which identifies what range the capacity the connection is fused at or size of dedicated transformer/s.

Group 3 can have connections less than 150kVA but have to be commercial or industrial.

**Large Commercial Price Category (Group 4)** – This group is for Large Commercial, 11kV metered and with individual pricing. There is one ICP in this Group.

### Distributor Loss Category

Loss Code	Description	Loss Factor Consumption	Loss Factor Generation
L0	Group 0 Unmetered and Builders Temporary Supply	1.044	1.019
L1	Group 1 Residential (Low Fixed Charge Option)	1.044	1.019
L2	Group 2 General - Residential and Commercial	1.044	1.019
L3	Group 3 Large Commercial - Supplied from 400V Network	1.033	1.022
L4	Group 3 Large Commercial - Direct 400V feed from transformer	1.033	1.022
L5	Group 3 Large Commercial - Dedicated Transformer 400V Metering	1.033	1.022
L6	Group 3 or 4 Large Commercial - Dedicated Transformer 11kV Metering	1.027	1.017

Table 1. Loss Category and Loss Factors

## **Distributor Chargeable Capacity**

The “Chargeable Capacity” field is populated for Groups 1, 2, 3 and 4 as the connected chargeable capacity.

**Group 0** - The “Chargeable Capacity” field will have the chargeable capacity, where appropriate.

**0-SL** – Does not have any capacity assigned as there is only one ICP and the charges are based on a fixed daily price.

**0-BT** – Does not have capacity assigned as there is a fixed daily price not based on capacity

**0-UM** – Will have Chargeable Capacity field populated based on the capacity of the connection. The value is in kW and rounded to 2 decimal places.

**Group 1 and 2** – The “Chargeable Capacity” field will be populated with fused capacity in kVA as per the Table 2. Given there are existing business and residential connections with two or three phases that could have a single phase 60 amp connection, a dispensation has been granted allowing for two phase 40 amp and three phase 30 amp supplies to be assessed at the minimum capacity of 15kVA.

**Group 3 and 4** -The “Chargeable Capacity” field will be populated in kVA. It will be the maximum capacity of the Pricing Category Code assigned to the ICP (e.g. T-08 = 300kVA, T-09 = 500kVA).

Note: Up until 31 March 2017, the “Chargeable Capacity” field for Group 3 used to have the Winter Demand values. From 1<sup>st</sup> April 2018, these values are now input in the “Distributor Installation Details” field.

**Fuse Rating Table**

<b>No. of Phases</b>	<b>Fuse size (Amps)</b>	<b>kVA Rating</b>
3	30	15
2	40	15
3	40	28
1	60	15
2	60	30
3	60	45
1	80	20
2	80	40
3	80	60
1	100	23
2	100	46
3	100	69
3	125	87
3	150	105
3	160	110
3	200	138

*Table 2. Fuse Rating Table*

## **Distributor Installation Details**

**Group 0** - This field will be populated with miscellaneous site description details for the ICP .

**Groups 1 and 2** - This field will be populated with miscellaneous site description details for the ICP .

**Group 3** - This field will be populated with the Winter Demand value (in kVA). Note that this is a new change applying from 1 April 2018. Previously the Winter Demand was input in the "Chargeable Capacity" field.

The **Winter Demand** charge is the single highest half hour kVA demand recorded in the months of June, July, and August between 8.30am-11.30am and 5pm-6pm. The winter demand assessment period excludes weekends and public holidays. The winter demand value is used for billing purposes from the October month for the following 12 months until reset again the after the following winter. New consumer connections will have an assessed winter demand until the end of the first winter period.

## **Checks and Verification**

The information contained above has been checked and verified as being correct by:-



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Phil Goodall  
**General Manager**

Date: 1<sup>st</sup> February 2018