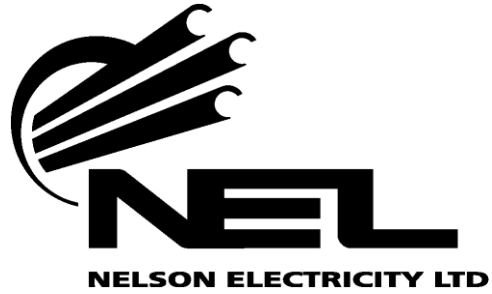


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# Nelson Electricity Limited

## Pricing Guide

1<sup>st</sup> April 2024



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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 2024 to 31 March 2025.

### **1.0 Overview of Prices from April 2024**

Nelson Electricity is not introducing any new pricing options for the year.

The Peak/Off-Peak pricing options for ICPs in consumer Groups 1 and 2 (15kVA -150kVA) introduced in April 2023 have been reviewed and working as designed. These pricing categories are 1P and 2P.

The peak period is unchanged from 7am to 11pm weekdays, with the off-peak period covering all other times including weekends (no differentiation for public holidays).

All Load Group 1 and Load Group 2 consumers with half-hour (HHR) meters should be in Pricing Categories 1P or 2P. Pricing Categories 1 and 2 are now closed for new connections.

Locational pricing was introduced for a small group of Load Group 2 consumers that are supplied by a rural line which incurs significant additional costs to maintain compared to the rest of the electricity network. The fixed line charges are being increased over a 5 to 10 year period to recover the additional costs to maintain the rural line. The pricing option is 2R.

There is the increase of the Low Fixed Charge Tariff Option for Residential Consumers as per the changes in the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 from 1 April 2024. This applies to Group 1 connections. The increase is from 3 cents/kVA/day of connected capacity to 4 cents/kVA/day of connected capacity (all residential consumers have an assumed connected capacity of 15kVA). This increases the fixed charge from 45 cents/day up to 60 cents/day. This applies to Pricing Categories 1 and 1P.

## 2.0 Summary of Peak/Off-Peak Price Plans

Nelson Electricity introduced two new uncontrolled pricing options in 2023 which include Peak/Off-Peak pricing options for each of the new 1P and 2P Price Categories.

- Peak - Weekdays 07:00 to 23:00
- Off-peak – All periods outside of Weekdays 07:00 to 23:00.
- No differentiation for public holidays.

The illustration below displays when the two tariff options will apply.

		Weekday - period starting																								
		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	
Peak																										
Off-peak																										
		Weekend - period starting																								
		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	
Peak																										
Off-peak																										

All consumers identified on the Registry as having a half-hour (HHR) meter should now be on the 1P or 2P Price Categories. The 24 hour uncontrolled pricing options are 1P-PEAK and 1P-OFFP or 2P-PEAK and 2P-OFFP tariffs. Consumers with legacy (NHH) meters will remain on Pricing Categories 1 or 2 with the existing Anytime tariff (e.g. 1-24HR or 2-24HR).

The existing Price Categories “1” and “2” that include pricing codes with the suffix “24HR” are closed to new consumers from 1 April 2023.

### **Operational matters**

Time-of-use pricing options for Load Group 1 and 2 consumers requires half hour data to be time-sliced and consolidated into the relevant peak and off-peak periods for network reporting.

Nelson Electricity recognises HHR meters are imperfect and retailers may not have the systems in place, so may occasionally be unable to procure the data necessary to provide actual Peak/Off-Peak consumption for an ICP. To account for this, Nelson Electricity also introduced a ‘Default’ pricing code for each Price Category “1P-DEF” and “2P-DEF” that retailers can use in circumstances where they are unable to provide actual Peak/Off-Peak consumption.

Where a retailer has reported against the default tariff in the initial EIEP1 reporting cycle, Nelson Electricity prefers the retailer to report Peak/Off-Peak consumption for the ICP if the data is available for the R3 replacement EIEP1 reporting cycle.

The ‘Default’ uncontrolled rate is set at the same as the Price Categories 1 or 2 - 24HR uncontrolled rate. NEL, in recognises that retailers may take time to change their billing systems

to accommodate this pricing change. The use of the Default Rate instead of the Peak/Off-Peak rates in the interim time period including the revision 3 billing cycle is satisfactory.

There is no difference in prices between the old Pricing Category 1 pricing and the new Category 1P (Peak/Off-Peak) pricing when using the 'Default' uncontrolled rate. There is also no difference in prices between the old Pricing Category 2 pricing and the new Category 2P (Peak/Off-Peak) pricing when using the 'Default' uncontrolled rate.

NEL expects that as retailers change their billing systems, that the kWh volumes being reported on the default "DEF" price codes will reduce.

### **Defining the tariff profile**

The driver of how we designed this tariff was informed by the timing and duration of our network peaks. This is because we want to encourage consumers to shift discretionary demand, such as EV charging, dishwashers, washing machines, etc. away from the peak periods and into the off-peak periods.

The average network load profile exhibits morning and evening peaks with a trough in demand during the middle of the day and a large trough in load overnight. Generally, the Nelson Electricity load follows this profile.

When designing this tariff, we have focused what the network load will be on the worst days of the year, (not the average) when areas of the network could be reaching its capacity limits and load-shifting capabilities are fully utilised. This is because it is load at these times that trigger network investment. How consumers use the network on these days has a significant effect on the timing of these network investments.

## **3.0 Locational Pricing**

There is one area identified where the economic cost for Nelson Electricity to supply consumers is significantly greater than the line charge revenue received. The supply to these consumers is being subsidised by the rest of the Nelson Electricity consumer base.

The Fringed Hill area supplying 4 commercial consumers has a 2km overhead rural distribution line that is subject to significant additional costs due to location compared to the rest of the network, those being, annual tree management, access corridor clearing, line maintenance and additional insurance. The true economic cost of providing line function services to these consumers is greater than 400% more than the revenue received through standard pricing. These consumers were transferred onto a new Price Category 2R.

The fixed capacity charge 2R-Fixed will be increased annually over a five to ten-year period to a point where consumers on the top of Fringed Hill are contributing to the full cost service their connections. The kWh rates will be the same as Price Category 2 pricing.

## **4.0 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:

- metered builders temporary supplies
- small unmetered supplies to telephone boxes
- 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 is typically categorised as Load Group 2.

Load Group 1 Price Categories:

- 1 NHH Metering Only (Closed 1 April 2023)
- 1P Peak/Off-Peak - HHR Metering

- **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 2 Price Categories:

- 2 NHH Metering Only (Closed 1 April 2023)
- 2P Peak/Off-Peak - HHR Metering
- 2R Remote - Fringed Hill

- **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.

## **5.0 Registry Pricing Codes, 1 April 2024 - 31 March 2025**

This section provides the detail necessary to interpret the pricing information of the Registry so to ensure all ICP's are billed accurately.

### **5.1 Distributor Price Category Code**

This section describes what code should be input into the Registry – “*Distributor Price Category Code*” field.

#### **Distributor Price Category Summary**

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

## 5.2 Distributor Loss Category Codes

This section describes what code should be input into the Registry – “*Distributor Loss Category Code*” field.

The table below outlines the Loss Codes and which Load Groups they are allocated to. Load Group 2 can have either L1 loss code for Residential connections and L2 for Commercial connections.

### 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, 1P, 2, 2P Residential Connections	1.044	1.019
L2	Group 2 or 2P Commercial Connections	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

## 5.3 Distributor Installation Details

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

**Groups 1, 1P, 2, 2P and 2R** - 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).

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.

## 5.4 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, 1P, 2, 2P and 2R** – 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).

**Fuse Rating Table**

No. of Phases	Fuse size (Amps)	kVA Rating
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

### Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004

One complication with the capacity based fixed delivery price is the Electricity (Low Fixed Charge Pricing Option for Domestic Consumers) Regulations 2004 which means that a residential consumer using less than 8,000kWh must have access to a fixed delivery price for the period 1



April 2024 – 31 March 2025 of at most 60 cents per day. To comply with this regulation and to minimise delivery price options, NEL has assessed all residential consumers fuse capacity at 15kVA. Currently a residential consumer with a larger fuse size is only paying the standard price of the typical 15kVA connection.

## **6.0 Retailer Billing and EIEP1 File Format**

### **6.1 Price Codes**

This section provides some guidance around the application of the Pricing Codes for Electricity Retailer billing of its customers and also the format of the EIEP Files being provided to Nelson Electricity. The aim (over time) is to ensure there is a consistent approach.

There is an expectation that all Retailers will use the same Price Codes as is outlined below.

#### **Load Group 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 (\$/day)	- Mandatory
0-BT-24HR (\$/kWh)	- Mandatory

##### **Unmetered Connection**

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

##### **Price Codes**

0-UM-FIXED (\$/day)	- Mandatory
0-UM-kW (\$/kW/day)	- 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 (\$/day)	- Mandatory
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## Load Group 1

### **Residential Low Fixed Charge Options**

Load Group 1 ICP's **must** be on the "1" or "1P" pricing option. The fixed charge is based on the connected capacity which is input in the "Chargeable Capacity" Field in the Registry. The 1-WATER, 1P-WATER and 1-NIGHT, 1P-NIGHT are optional depending on whether there are controllable loads and type. It is mandatory to include 1-DG or 1P-DG if there is Distributed Generation installed on site.

### **Price Code 1 (Closed for new connections from 1 April 2023)**

1-FIXED (\$/kVA/day)	- Fixed charge	- Mandatory
1-24HR (\$/kWh)	- Anytime (No control)	- Mandatory
1-WATER (\$/kWh)	- Controlled (Hot water)	- Optional
1-NIGHT (\$/kWh)	- Night Rate (11pm – 7am)	- Optional
1-DG (\$/kWh)	- Distributed Generation (Export)	- Mandatory if DG installed

### **Price Code 1P (New Peak/Off-Peak Pricing Option)**

1P-FIXED (\$/kVA/day)	- Fixed charge	- Mandatory
1P-PEAK (\$/kWh)	- Peak	- Mandatory
1P-OFFP (\$/kWh)	- Off-Peak	- Mandatory
1P-WATER (\$/kWh)	- Controlled (Hot water)	- Optional
1P-NIGHT (\$/kWh)	- Night Rate (11pm – 7am)	- Optional
1P-DEF (\$/kWh)	- Default Price (if Peak and Off-Peak data not available)	
1P-DG (\$/kWh)	- Distributed Generation (Export)	- Mandatory if DG installed

## Load Group 2

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

Load Group 2 ICP's **must** use the "2" or "2P" pricing option. The fixed charge is based on the connected capacity which is input in the "Chargeable Capacity" Field in the Registry. The 2-WATER, 2P-WATER and 2-NIGHT, 2P-NIGHT are optional depending on whether there are controllable loads and type. It is mandatory to include 2-DG or 2P-DG if there is Distributed Generation installed on site.

### **Price Code 2 (Closed for new connections from 1 April 2023)**

2-FIXED (\$/kVA/day)	- Fixed charge	- Mandatory
2-24HR (\$/kWh)	- Anytime (No control)	- Mandatory
2-WATER (\$/kWh)	- Controlled (Hot water)	- Optional
2-NIGHT(\$/kWh)	- Night Rate (11pm – 7am)	- Optional
2-DG (\$/kWh)	- Distributed Generation (Export)	- Mandatory if DG installed

### **Price Code 2P (New Peak/Off-Peak Pricing Option)**

2P-FIXED (\$/kVA/day)	- Fixed charge	- Mandatory
2P-PEAK (\$/kWh)	- Peak	- Mandatory
2P-OFFP (\$/kWh)	- Off-Peak	- Mandatory
2P-WATER (\$/kWh)	- Controlled (Hot water)	- Optional
2P-NIGHT (\$/kWh)	- Night Rate (11pm – 7am)	- Optional
2P-DEF (\$/kWh)	- Default Price (if Peak and Off-Peak data not available)	
2P-DG (\$/kWh)	- Distributed Generation (Export)	- Mandatory if DG installed

## Price Code 2R (New Remote Locational Pricing Option)

2R-Fixed (\$/kVA/day)	- Fixed charge	- Mandatory
2R-24hr (\$/kWh)	- Anytime (No control)	- Mandatory

## Load Group 3

### Large Commercial

Load Group 3 is for any Commercial connection up to 2400kVA, optional from 42kVA up to 150kVA. There are six separate pricing codes to be used for each ICP.

1. 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 (although not used for billing as there is a price per day for each capacity band).
2. The 3-FIXED is a fixed daily charge
3. 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.
4. The 3-24HR is a standard variable consumption charge.
5. The 3-PF Power Factor is the kVA<sub>r</sub> required to bring the highest kW half hour of the month up to 0.95 Power Factor. (see calculation in Appendix A).
6. The 3-DG Distributed Generation charge is a new price for Group 3. This is a charge for the kWh exported onto the Nelson Electricity network from an ICP with distributed generation installed.

### Pricing Codes

#### Capacity Charges

T-03 (\$/day)	16kVA – 42kVA	- Select one
T-04 (\$/day)	43kVA – 69kVA	- Select one
T-05 (\$/day)	70kVA – 110kVA	- Select one
T-06 (\$/day)	111kVA – 138kVA	- Select one
T-07 (\$/day)	139kVA – 218kVA	- Select one
T-08 (\$/day)	219kVA – 300kVA	- Select one
T-09 (\$/day)	301kVA – 500kVA	- Select one
T-10 (\$/day)	501kVA – 750kVA	- Select one
T-11 (\$/day)	751kVA – 1000kVA	- Select one
T-12 (\$/day)	1001kVA – 1500kVA	- Select one
T-13 (\$/day)	1501kVA – 2000kVA	- Select one
T-15 (\$/day)	2400kVA	- Select one

#### Other Charges

3-FIXED (\$/day)	- Fixed Daily Charge	- Mandatory
3-WD (\$/kVA/day)	- Winter Demand (kVA)	- Mandatory
3-24HR (\$/kWh)	- Anytime (no Control)	- Mandatory
3-PF (\$/kVA <sub>r</sub> /month)	- Power Factor Charge (kVA <sub>r</sub> )	- Mandatory
3-DG (\$/kWh)	- Distributed Generation	- Mandatory if DG installed

## 6.2 EIEP1 File Format

This section is to provide some guidance around the preferred EIEP1 reporting format for the Mass Market ICP's.

The aim is for all Retailers to use the same Pricing Codes and apply the same calculation methodology. A dummy EIEP1 file is attached below to demonstrate the format to be used.

### EIEP1 Dummy File

For Groups 1 and 2 - The fixed price is based on Capacity (fuse size) so must be shown as a capacity charge. This file below shows the Fixed components which are capacity based are calculated as kVA \* Price \* Days. Each element is included in the file. The kVA value is as per the "Distributor Chargeable Capacity" field on the Registry. This method of reporting the Capacity charge is in preference to reporting on the number of day's times by a price that has pre calculated the KVA \* Price.

Nelson Electricity will be using the "Distributor Chargeable Capacity" field information on the Registry as the basis for the billing of capacity charges.

The variable charges are relatively self-explanatory - Price \* kWh. The key here is using the same Pricing Codes as the Nelson Electricity Pricing Schedule and EIEP12 file.

EIEP1 File Examples											Notes	Metering Type	
<b>Load Group 1 - Pricing Category 1P - Peak/Off-Peak (Low Fixed Charge Option)</b>													
DET	0000123456CTB89	1/04/2024	30/04/2024	kVA	15 RD	STK0331 NELS	1P-FIXED	0.0400 F	30	18.00	202404	1P (LFC) - Residential 15kVA (\$/kVA/Day)	HHR Metering
DET	0000123456CTB89	1/04/2024	30/04/2024	kWh	610 RD	STK0331 NELS	1P-PEAK	0.0620 V	30	37.82 PK	202404	X Peak (\$/kWh)	HHR Metering
DET	0000123456CTB89	1/04/2024	30/04/2024	kWh	554 RD	STK0331 NELS	1P-OFFP	0.0470 V	30	26.04 OP	202404	X Off Peak (\$/kWh)	HHR Metering
DET	0000123456CTB89	1/04/2024	30/04/2024	kWh	500 RD	STK0331 NELS	1P-WATER	0.0320 V	30	16.00 CN	18 202404	X Hot Water (\$/kWh)	HHR Metering
DET	0000123456CTB89	1/04/2024	30/04/2024	kWh	120 RD	STK0332 NELS	1P-DG	0.0050 V	31	0.60 UN	24 202404	I Distributed Generation (\$/kWh)	HHR Metering
DET	0000654321CTF48	1/04/2024	30/04/2024	kVA	15 RD	STK0331 NELS	1P-FIXED	0.0400 F	30	18.00	202404	Group 1P (LFC) - Residential 15kVA (\$/kVA/Day)	HHR Metering
DET	0000654321CTF48	1/04/2024	30/04/2024	kWh	610 RD	STK0331 NELS	1P-PEAK	0.0620 V	30	37.82 PK	202404	X Peak (\$/kWh)	HHR Metering
DET	0000654321CTF48	1/04/2024	30/04/2024	kWh	554 RD	STK0331 NELS	1P-OFFP	0.0470 V	30	26.04 OP	202404	X Off Peak (\$/kWh)	HHR Metering
DET	0000654321CTF48	1/04/2024	30/04/2024	kWh	554 RD	STK0331 NELS	1P-NIGHT	0.0270 V	30	14.96 NO	8 202404	X Night - Hot Water Controlled on 11pm - 7am (\$/kWh)	HHR Metering
DET	0000222222CT7EB	1/04/2024	30/04/2024	kVA	15 RD	STK0331 NELS	1P-FIXED	0.0400 F	30	18.00	202404	Group 1P (LFC Option) - Residential 15kVA (\$/kVA/Day)	HHR Metering
DET	0000222222CT7EB	1/04/2024	30/04/2024	kWh	500 RD	STK0331 NELS	1P-DEF	0.0560 V	30	28.00 UN	24 202404	X Default Anytime (\$/kWh)	HHR Metering
DET	0000222222CT7EB	1/04/2024	30/04/2024	kWh	200 RD	STK0331 NELS	1P-WATER	0.0320 V	30	6.40 CN	18 202404	X Hot Water (\$/kWh)	HHR Metering
<b>Load Group 1 - Pricing Category 1 - Non Half Hour Meters Only (Closed)</b>													
DET	0000333333CTABD	1/04/2024	30/04/2024	kVA	15 RD	STK0331 NELS	1-FIXED	0.0400 F	30	18.00	202404	1 (LFC Option) - Residential 15kVA (\$/kVA/Day)	NHH Metering
DET	0000333333CTABD	1/04/2024	30/04/2024	kWh	500 RD	STK0331 NELS	1-24HR	0.0560 V	30	28.00 UN	24 202404	X Anytime (\$/kWh)	NHH Metering
DET	0000333333CTABD	1/04/2024	30/04/2024	kWh	200 RD	STK0331 NELS	1-WATER	0.0320 V	30	6.40 CN	18 202404	X Hot Water (\$/kWh)	NHH Metering
DET	0000444444CTDD4	1/04/2024	30/04/2024	kVA	15 RD	STK0331 NELS	1-FIXED	0.0400 F	30	18.00	202404	Group 1 (LFC Option) - Residential 15kVA (\$/kVA/Day)	NHH Metering
DET	0000444444CTDD4	1/04/2024	30/04/2024	kWh	934 RD	STK0331 NELS	1-24HR	0.0560 V	30	52.30 UN	24 202404	X Anytime (\$/kWh)	NHH Metering
DET	0000444444CTDD4	1/04/2024	30/04/2024	kWh	337 RD	STK0331 NELS	1-NIGHT	0.0270 V	30	9.10 NO	8 202404	X Hot Water (\$/kWh)	NHH Metering
DET	0000444444CTDD4	1/04/2024	30/04/2024	kWh	100 RD	STK0331 NELS	1-DG	0.0050 V	30	0.50 UN	24 202404	I Distributed Generation (\$/kWh)	NHH Metering
<b>Load Group 2 - Pricing Category 2P - Peak/Off-Peak (Peak/Off-Peak from 15kVA to 150kVA)</b>													
DET	0000181818CTEFT	1/04/2024	30/04/2024	kVA	15	STK0331 NELS	2P-FIXED	0.0790 V	30	35.55	202404	2P - Residential 15kVA (\$/kVA/Day)	HHR Metering
DET	0000181818CTEFT	1/04/2024	30/04/2024	kWh	598 RD	STK0331 NELS	2P-PEAK	0.0350 V	30	20.93 PK	202404	X Peak (\$/kWh)	HHR Metering
DET	0000181818CTEFT	1/04/2024	30/04/2024	kWh	630 RD	STK0331 NELS	2P-OFFP	0.0260 V	30	16.38 OP	202404	X Off Peak (\$/kWh)	HHR Metering
DET	0000181818CTEFT	1/04/2024	30/04/2024	kWh	450 RD	STK0331 NELS	2P-WATER	0.0066 V	30	2.97 CN	18 202404	X Hot Water (\$/kWh)	HHR Metering
DET	0000181818CTEFT	1/04/2024	30/04/2024	kWh	210 RD	STK0331 NELS	2P-DG	0.0050 V	30	1.05 UN	24 202404	I Distributed Generation (\$/kWh)	HHR Metering
DET	0000111111CTF48	1/04/2024	30/04/2024	kVA	15 RD	STK0331 NELS	2P-FIXED	0.0790 F	30	30.03	202404	Group 2P - Residential 15kVA (\$/kVA/Day)	HHR Metering
DET	0000111111CTF48	1/04/2024	30/04/2024	kWh	786 RD	STK0331 NELS	2P-DEF	0.0320 V	30	25.15 UN	24 202404	X Default Anytime (\$/kWh)	HHR Metering
DET	0000111111CTF48	1/04/2024	30/04/2024	kWh	354 RD	STK0331 NELS	2P-WATER	0.0066 V	30	2.34 CN	18 202404	X Hot Water (\$/kWh)	HHR Metering
<b>Load Group 2 - Pricing Category 2P - Peak/Off-Peak - (Peak/Off-Peak from 15kVA to 150kVA)</b>													
DET	0000777777CT0A4	1/04/2024	30/04/2024	kVA	45 RD	STK0331 NELS	2P-FIXED	0.0790 F	30	106.65	202404	2P - Business with 3 ph 60 amp - 45kVA (\$/kVA/Day)	HHR Metering
DET	0000777777CT0A4	1/04/2024	30/04/2024	kWh	1230 RD	STK0331 NELS	2P-PEAK	0.0350 V	30	43.05 PK	202404	X Peak (\$/kWh)	HHR Metering
DET	0000777777CT0A4	1/04/2024	30/04/2024	kWh	780 RD	STK0331 NELS	2P-OFFP	0.0260 V	30	20.28 OP	202404	X Off Peak (\$/kWh)	HHR Metering
DET	0000777777CT0A4	1/04/2024	30/04/2024	kWh	193 RD	STK0331 NELS	2P-WATER	0.0066 V	30	1.27 CN	18 202404	X Hot Water (\$/kWh)	HHR Metering
<b>Load Group 2 - Pricing Category 2 - Non Half Hour Meters Only</b>													
DET	0000666666CTDEF	1/04/2024	30/04/2024	kVA	15 RD	STK0331 NELS	2-FIXED	0.0790 F	30	30.03	202404	2 - Residential 15kVA (\$/kVA/Day)	NHH Metering
DET	0000666666CTDEF	1/04/2024	30/04/2024	kWh	786 RD	STK0331 NELS	2-24HR	0.0320 V	30	25.15 UN	24 202404	X Anytime (\$/kWh)	NHH Metering
DET	0000666666CTDEF	1/04/2024	30/04/2024	kWh	354 RD	STK0331 NELS	2-WATER	0.0066 V	30	2.34 CN	18 202404	X Hot Water (\$/kWh)	NHH Metering
<b>Load Group 2 - Pricing Category 2R- Remote</b>													
DET	0000999999CTGPT	1/04/2024	30/04/2024	kVA	15 RD	STK0331 NELS	2R-FIXED	0.1500 F	30	67.50	202404	2R - Remote (\$/kVA/Day)	Any Metering
DET	0000999999CTGPT	1/04/2024	30/04/2024	kWh	786 RD	STK0331 NELS	2R-24HR	0.0320 V	30	25.15 UN	24 202404	X Anytime (\$/kWh)	Any Metering
<b>Large Business (Time of Use)</b>													
DET	0000555555CTB89	1/04/2024	30/04/2024	kVA	300 RD	STK0331 NELS	T-08	19.8000 F	30	594.00	202404	Group 3 - Large Business (\$/Day)	Commercial HHR
DET	0000555555CTB89	1/04/2024	30/04/2024	Day	30 RD	STK0331 NELS	3-FIXED	1.6000 V	30	48.00	202404	Daily Fixed (\$/Day)	Commercial HHR
DET	0000555555CTB89	1/04/2024	30/04/2024	kVA	190 RD	STK0331 NELS	3-WD	0.1500 V	30	855.00	202404	Winter Demand (\$/kVA/Day)	Commercial HHR
DET	0000555555CTB89	1/04/2024	30/04/2024	kWh	23100 RD	STK0331 NELS	3-24HR	0.0110 F	30	254.10 UN	24 202404	X Anytime kWh (\$/kWh)	Commercial HHR
DET	0000555555CTB89	1/04/2024	30/04/2024	kWh	12 RD	STK0331 NELS	3-DG	0.0050 V	30	0.06 UN	24 202404	X Distributed Generation (\$/kWh)	Commercial HHR
DET	0000555555CTB89	1/04/2024	30/04/2024	kVA	3 RD	STK0331 NELS	3-PF	7.0000 V	30	21.00	202404	X Power Factor (\$/kVAr/Month)	Commercial HHR

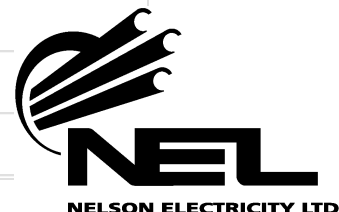
### 6.3 EIEP12 File Format

HDR	PRICE	11 NELS	XXXX	22/02/2024	12:00:00	1	105			
DET	NELS	1/04/2024		1 F				1-FIXED	\$/kVA/Day	0.0400 ICP
DET	NELS	1/04/2024		1 V	X	UN	24	1-24HR	\$/kWh	0.0560 ICP
DET	NELS	1/04/2024		1 V	X	CN	18	1-WATER	\$/kWh	0.0320 ICP
DET	NELS	1/04/2024		1 V	X	NO	8	1-NIGHT	\$/kWh	0.0270 ICP
DET	NELS	1/04/2024		1 V	I	UN	24	1-DG	\$/kWh	0.0050 ICP
DET	NELS	1/04/2024	1P	F				1P-FIXED	\$/kVA/Day	0.0400 ICP
DET	NELS	1/04/2024	1P	V	X	PK		1P-PEAK	\$/kWh	0.0620 ICP
DET	NELS	1/04/2024	1P	V	X	OP		1P-OFFP	\$/kWh	0.0470 ICP
DET	NELS	1/04/2024	1P	V	X	CN	18	1P-WATER	\$/kWh	0.0320 ICP
DET	NELS	1/04/2024	1P	V	X	NO	8	1P-NIGHT	\$/kWh	0.0270 ICP
DET	NELS	1/04/2024	1P	V	X	UN	24	1P-DEF	\$/kWh	0.0560 ICP
DET	NELS	1/04/2024	1P	V	I	UN	24	1P-DG	\$/kWh	0.0050 ICP
DET	NELS	1/04/2024		2 F				2-FIXED	\$/kVA/Day	0.0790 ICP
DET	NELS	1/04/2024		2 V	X	UN	24	2-24HR	\$/kWh	0.0320 ICP
DET	NELS	1/04/2024		2 V	X	CN	18	2-WATER	\$/kWh	0.0066 ICP
DET	NELS	1/04/2024		2 V	X	NO	8	2-NIGHT	\$/kWh	0.0022 ICP
DET	NELS	1/04/2024		2 V	I	UN	24	2-DG	\$/kWh	0.0050 ICP
DET	NELS	1/04/2024	2P	F				2P-FIXED	\$/kVA/Day	0.0790 ICP
DET	NELS	1/04/2024	2P	V	X	PK		2P-PEAK	\$/kWh	0.0350 ICP
DET	NELS	1/04/2024	2P	V	X	OP		2P-OFFP	\$/kWh	0.0260 ICP
DET	NELS	1/04/2024	2P	V	X	CN	18	2P-WATER	\$/kWh	0.0066 ICP
DET	NELS	1/04/2024	2P	V	X	NO	8	2P-NIGHT	\$/kWh	0.0022 ICP
DET	NELS	1/04/2024	2P	V	X	UN	24	2P-DEF	\$/kWh	0.0320 ICP
DET	NELS	1/04/2024	2P	V	I	UN	24	2P-DG	\$/kWh	0.0050 ICP
DET	NELS	1/04/2024	2R	F				2R-FIXED	\$/kVA/Day	0.1500 ICP
DET	NELS	1/04/2024	2R	V	X	UN	24	2R-24HR	\$/kWh	0.0320 ICP
DET	NELS	1/04/2024	0-BT	F				0-BT-FIXED	\$/Day	1.0000 ICP
DET	NELS	1/04/2024	0-BT	V	X	UN	24	0-BT-24HR	\$/kWh	0.0850 ICP
DET	NELS	1/04/2024	0-UM	F				0-UM-FIXED	\$/Day	0.2000 ICP
DET	NELS	1/04/2024	0-UM	F				0-UM-kW	\$/kW/Day	1.1000 ICP
DET	NELS	1/04/2024	0-SL	F				0-SL	\$/Day	249.0000 ICP

*EIEP12 Price Change File (showing mass market and unmetered pricing options only)*

## 7.0 Pricing Schedule

# Nelson Electricity Ltd Delivery Price Schedule From 1 April 2024



Nelson Electricity Ltd is adjusting delivery prices effective 1 April 2024.

The prices in this schedule are used to charge electricity retailers for the delivery of electricity over the Nelson Electricity electricity network. Electricity retailers determine how to allocate this cost together with energy, metering and other retail costs when setting the retail prices that appear on a customer's power account.

Nelson Electricity distributes electricity to connections in the central Nelson city including most of the Port, Port Hills, Nelson South, Toi Toi, Brook, Wood, Nelson East and CBD areas.

Nelson Electricity - New Pricing				New Delivery Prices from 1 April 2024			Equivalent Existing Prices to 31 March 2024
Price Code	Description	Consumer Numbers	Units	Distribution Price	Transmission Price	Delivery Price	Delivery Price
<b>Load Group</b>							
<b>Price Category 0 Unmetered and low capacity connections</b>							
<b>Builders Temporary (7kVA)</b>							
0-BT-FIXED	Builders Temp - Fixed	8	\$/day	0.8500	0.1500	1.0000	0.8000
0-BT-24HR	Builders Temp - Anytime		\$/kWh	0.0670	0.0180	0.0850	0.0810
<b>Unmetered Connection (&lt; 1kW)</b>							
0-UM-FIXED	Unmetered - Fixed	37	\$/day	0.2000	0.0000	0.2000	0.1500
0-UM-KW	Maximum Demand		\$/kW/day	0.9400	0.1600	1.1000	1.0000
<b>Streetlighting</b>							
0-SL	Streetlight	1	\$/day	214.0000	35.00	249.00	225.00
<b>Load Group 1</b>							
<b>Price Category 1 (NHH Metering Only)</b>							
<b>Residential Low Fixed Charge (15kVA)</b>							
1-FIXED	Fixed	510	\$/kVA/day	0.0295	0.0105	0.0400	0.0300
1-24HR	Anytime		\$/kWh	0.0380	0.0180	0.0560	0.0570
1-WATER	Controlled (Hot Water)		\$/kWh	0.0320	0.0000	0.0320	0.0330
1-NIGHT	Night Rate (1pm-7am)		\$/kWh	0.0270	0.0000	0.0270	0.0280
1-DG	Distributed Generation		\$/kWh	0.0050	0.0000	0.0050	0.0050
<b>Price Category 1P (Peak/Off-Peak) - (HHR Metering)</b>							
<b>Residential Low Fixed Charge (15kVA)</b>							
1P-FIXED	Fixed	3859	\$/kVA/day	0.0295	0.0105	0.0400	0.0300
1P-PEAK	Peak		\$/kWh	0.0440	0.0180	0.0620	0.0630
1P-OFFP	Off Peak		\$/kWh	0.0290	0.0180	0.0470	0.0480
1P-WATER	Controlled (Hot Water)		\$/kWh	0.0320	0.0000	0.0320	0.0330
1P-NIGHT	Night Rate (1pm-7am)		\$/kWh	0.0270	0.0000	0.0270	0.0280
1P-DEF	Default		\$/kWh	0.0380	0.0180	0.0560	0.0570
1P-DG	Distributed Generation		\$/kWh	0.0050	0.0000	0.0050	0.0050
<b>Load Group 2</b>							
<b>Price Category 2 (from 15kVA to 150kVA) - (NHH Metering Only)</b>							
<b>General - Residential and Commercial</b>							
2-FIXED	Fixed	849	\$/kVA/day	0.0564	0.0226	0.0790	0.0710
2-24HR	Anytime		\$/kWh	0.0280	0.0040	0.0320	0.0300
2-WATER	Controlled (Hot Water)		\$/kWh	0.0066	0.0000	0.0066	0.0060
2-NIGHT	Night Rate (1pm-7am)		\$/kWh	0.0022	0.0000	0.0022	0.0020
2-DG	Distributed Generation		\$/kWh	0.0050	0.0000	0.0050	0.0050
<b>Price Category 2P (Peak/Off-Peak from 15kVA to 150kVA) - (HHR Metering)</b>							
<b>General - Residential and Commercial</b>							
2P-FIXED	Fixed	4008	\$/kVA/day	0.0564	0.0226	0.0790	0.0710
2P-PEAK	Peak		\$/kWh	0.0310	0.0040	0.0350	0.0330
2P-OFFP	Off Peak		\$/kWh	0.0220	0.0040	0.0260	0.0240
2P-WATER	Controlled (Hot Water)		\$/kWh	0.0066	0.0000	0.0066	0.0060
2P-NIGHT	Night Rate (1pm-7am)		\$/kWh	0.0022	0.0000	0.0022	0.0020
2P-DEF	Default		\$/kWh	0.0280	0.0040	0.0320	0.0300
2P-DG	Distributed Generation		\$/kWh	0.0050	0.0000	0.0050	0.0050
<b>Price Category 2R - (Remote - Fringed Hill)</b>							
<b>Fringed Hill - Commercial</b>							
2R-FIXED	Fixed	4	\$/kVA/day	0.1274	0.0226	0.1500	0.1060
2R-24HR	Anytime		\$/kWh	0.0280	0.0040	0.0320	0.0300

Load Group 3							
<b>Price Category 3 LARGE COMMERCIAL (up to 2400kVA)</b>							
<b>TIME OF USE</b>		86					
3-FIXED	Metered Installation		\$/day	16000	0.0000	<b>1.6000</b>	<b>1.4500</b>
3-WD	Winter Demand (kVA)		\$/kVA/day	0.1300	0.0200	<b>0.1500</b>	<b>0.1350</b>
3-24HR	Energy		\$/kWh	0.0022	0.0088	<b>0.0110</b>	<b>0.0100</b>
	Capacity Supplied (one of)						
T-03	T-03	16kVA – 42kVA	\$/day	19300	0.84	<b>2.77</b>	<b>2.52</b>
T-04	T-04	43kVA – 69kVA	\$/day	3.1700	138	<b>4.55</b>	<b>4.14</b>
T-05	T-05	70kVA – 110kVA	\$/day	5.0600	2.20	<b>7.26</b>	<b>6.60</b>
T-06	T-06	111kVA – 138kVA	\$/day	6.3500	2.76	<b>9.11</b>	<b>8.28</b>
T-07	T-07	139kVA – 218kVA	\$/day	10.0300	4.36	<b>14.39</b>	<b>13.08</b>
T-08	T-08	219kVA – 300kVA	\$/day	13.8000	6.00	<b>19.80</b>	<b>18.00</b>
T-09	T-09	301kVA – 500kVA	\$/day	23.0000	10.00	<b>33.00</b>	<b>30.00</b>
T-10	T-10	501kVA – 750kVA	\$/day	34.5000	15.00	<b>49.50</b>	<b>45.00</b>
T-11	T-11	751kVA – 1000kVA	\$/day	46.0000	20.00	<b>66.00</b>	<b>60.00</b>
T-12	T-12	1001kVA – 1500kVA	\$/day	69.0000	30.00	<b>99.00</b>	<b>90.00</b>
T-13	T-13	1501kVA – 2000kVA	\$/day	92.0000	40.00	<b>132.00</b>	<b>120.00</b>
T-15	T-15	2400kVA	\$/day	110.4000	48.00	<b>158.40</b>	<b>144.00</b>
3-DG	Distributed Generation		\$/kWh	0.0050	0.0000	<b>0.0050</b>	<b>0.0050</b>
3-PF	Power Factor <0.95		\$/kVAr/mth	7.0000	0.0000	<b>7.0000</b>	<b>6.5000</b>
<b>All prices exclude GST.</b> All prices as shown above are also available from our website <a href="http://www.nel.co.nz">www.nel.co.nz</a>							
<b>Pricing Guide</b> - Details on how these delivered prices are applied are included in our Pricing Guide which is available on our website.							
<b>Load Group 0</b> - Loads that meet Electricity Authority Unmetered Load Guidelines and Metered Builders Temporary Supplies (Builders Temp > 7kVA use Load Group 2).							
<b>Load Group 1</b> - Residential households (principal place of residence only) with connection capacity of 15kVA using less than 8,000kWh per year as required to comply with the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004.							
<b>Load Group 2</b> - Available to all residential and commercial connections with capacity from 15kVA to 150kVA.							
<b>Load Group 1 &amp; 2</b> - All existing residential households have an assessed connection capacity of 15kVA.							
<b>Load Group 3</b> - Available to any large commercial connections up to 2400kVA with Time of Use metering.							
<b>Load Group 1, 2 and 3</b> - Distributed Generation charge is for electricity exported into the Nelson Electricity network.							
Any questions about the line charges, please email us at <a href="mailto:enquiry@nel.co.nz">enquiry@nel.co.nz</a> , or phone (03) 546-0486.							

**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: 26<sup>th</sup> January 2024



## Appendix A: TOU Power Factor Calculation

Power Factor is the kVAr required to bring the highest kW half hour of the month up to 0.95 Power Factor. This applies to Load Groups 3 and 4 only.

Nelson Electricity Power Factor Charge Assessment									
Example from Half Hour Data			kWh	kVarh	kVAh				
DET 0000123456CTEDC	F	28/07/2010	11	2.54	0.58	2.61			
DET 0000123456CTEDC	F	28/07/2010	12	2.54	0.62	2.61			
DET 0000123456CTEDC	F	28/07/2010	13	2.4	0.67	2.49			
DET 0000123456CTEDC	F	28/07/2010	14	3.02	0.67	3.09			
DET 0000123456CTEDC	F	28/07/2010	15	5.76	2.47	6.27			
<b>DET 0000123456CTEDC</b>	<b>F</b>	<b>28/07/2010</b>	<b>16</b>	<b>39.48</b>	<b>21.36</b>	<b>44.89</b>	<b>78.96</b>	<b>42.72</b>	<b>89.78</b>
DET 0000123456CTEDC	F	28/07/2010	17	29.4	18.41	34.69			
DET 0000123456CTEDC	F	28/07/2010	18	5.9	3.5	6.86			
DET 0000123456CTEDC	F	28/07/2010	19	3	0.65	3.07			
DET 0000123456CTEDC	F	28/07/2010	20	2.9	0.67	2.98			
DET 0000123456CTEDC	F	28/07/2010	21	3.17	0.7	3.25			
DET 0000123456CTEDC	F	28/07/2010	22	3.07	0.58	3.12			
DET 0000123456CTEDC	F	28/07/2010	23	2.38	0.5	2.43			
DET 0000123456CTEDC	F	28/07/2010	24	2.54	0.6	2.61			
DET 0000123456CTEDC	F	28/07/2010	25	3.58	0.89	3.69			

Highest half hour kWh for the month				
kW	kVAr	kVA	Pf	kVA at 0.95 Pf
78.96	42.72	89.78	0.88	83.12
Chargeable kVAr				25.95
				16.77

**Excel Formula**

$$=IF(Pf < 0.95, kVAR - SQRT(SUMSQ(1/0.95 * kW) - SUMSQ(kW)), 0)$$
  

**kVAr Assessment at Pf 0.95**

If Power Factor was 0.95 then 1kW would equal 1/0.95 kVA = 1.052632 kVA  
 kVAr would equate to square root of (kVA<sup>2</sup> - kW<sup>2</sup>) = 0.328684  
 You can multiply 0.32864 by kW to get kVAr at Pf 0.95 instead of using the formula.