Nelson Electricity Limited
Pricing Methodology Disclosure

For the period beginning 1 April 2013

The following information is disclosed in accordance with the Electricity Distribution Information Disclosure Determination 2012 under Part 4 of the Commerce Act 1986.

In accordance with the Commerce Act
Electricity Distribution Information Disclosure Determination 2012

SCHEDULE 17
Certification of Year-beginning Disclosures

Clause 2.9.1 of section 2.9

We, Ian Francis Kearney and Michael John McCliskie, being directors of Nelson Electricity Limited certify that, having made all reasonable inquiry, to the best of our knowledge-

a) The following attached information of Nelson Electricity Limited, prepared for the purposes of clause 2.4.1, clause 2.6.1 and sub-clauses 2.6.3(4) and 2.6.5(3) of the Electricity Distribution Information Disclosure Determination 2012 in all material respects, complies with that determination.

b) The prospective financial or non-financial information included in the attached information has been measured on a basis consistent with regulatory requirements or recognised industry standards.

Signed

9 April 2013

9 April 2013

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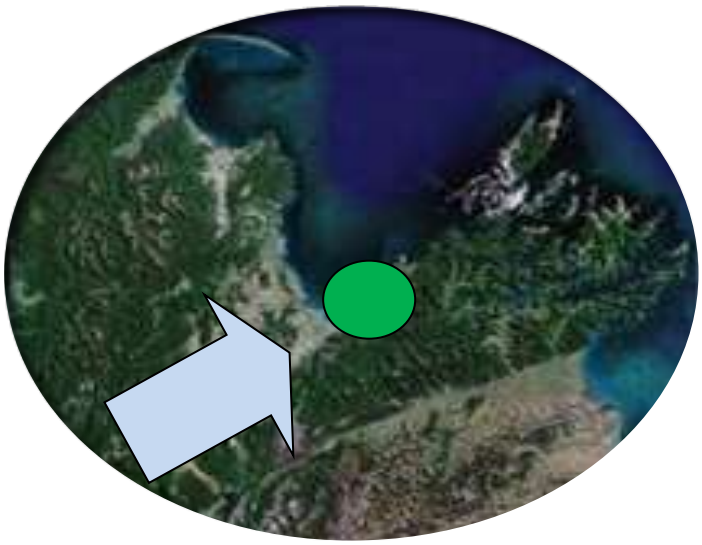
1. Introduction

The Nelson Electricity network comprises approximately 9,100 connections in a concentrated area of 24 square kilometres in the central Nelson city area. The connections are largely CBD, industrial and dense urban. Nelson Electricity has a peak loading of 32.0MW, during winter months and distributes 150GWh annually through the network.

Nelson Electricity derives its transmission services through Network Tasman via Transpower's Stoke substation which is 7 kilometres from Nelson Electricity's only zone substation at Haven Road.



Nelson Electricity is owned by Network Tasman and Marlborough Lines, each holding a 50% shareholding.

2. Regulatory Requirements

Nelson Electricity is a natural monopoly and is not directly exposed to the competitive forces that drive other markets to deliver improved efficiency and service. To this extent Nelson Electricity is classed as non-exempt from the control regime under the regulations for electricity network owners under the commerce Act 1986. This means that Nelson Electricity has to comply with the Default Price and Quality regime (DPP) managed by the Commerce Commission. Nelson Electricity also has to comply with the Electricity Distribution Information Disclosure Determination under Part 4 of the Commerce Act 1986 of which includes the disclosure of its Pricing Methodology. Recent changes also require the pricing methodology to demonstrate how the Nelson Electricity pricing is in line with the Electricity Authority Distribution Pricing Principles.

Nelson Electricity has taken all requirements into account in the preparation of this document.

2.1 Electricity Distribution Information Disclosure Determination

The key requirements in complying with the disclosure of pricing methodologies are outlined below from 2.4.1 – 2.4.5 of the Electricity Distribution Information Disclosure Determination. The requirements outline the framework to demonstrate to the "Interested Person" how Nelson Electricity allocates costs to different Load Groups and the basis on how prices are set.

2.4 PRICING AND RELATED INFORMATION
Disclosure of pricing methodologies

*2.4.1 Every **EDB** must **publicly disclose**, before the start of each **disclosure year**, a pricing methodology which-*
*(1) Describes the methodology, in accordance with clause 2.4.3 below, used to calculate the **prices** payable or to be payable;*
*(2) Describes any changes in **prices** and **target revenues**;*
*(3) Explains, in accordance with clause 2.4.5 below, the approach taken with respect to pricing in **non-standard contracts** and **distributed generation** (if any);*
*(4) Explains whether, and if so how, the **EDB** has sought the views of **consumers**, including their expectations in terms of **price** and quality, and reflected those views in calculating the **prices** payable or to be payable. If the **EDB** has not sought the views of **consumers**, the reasons for not doing so must be disclosed.*

*2.4.2 Any change in the pricing methodology or adoption of a different pricing methodology, must be **publicly disclosed** at least 20 working days before **prices** determined in accordance with the change or the different pricing methodology take effect.*

2.4.3 Every disclosure under clause 2.4.1 above must-
*(1) Include sufficient information and commentary to enable interested persons to understand how **prices** were set for each **consumer group**, including the assumptions and statistics used to determine **prices** for each **consumer group**;*
*(2) Demonstrate the extent to which the pricing methodology is consistent with the **pricing principles** and explain the reasons for any inconsistency between the pricing methodology and the **pricing principles**;*
*(3) State the **target revenue** expected to be collected for the **disclosure year** to which the pricing methodology applies;*
*(4) Where applicable, identify the key components of **target revenue** required to cover the costs and return on investment associated with the **EDB**'s provision of **electricity lines services**. Disclosure must include the numerical value of each of the components;*
*(5) State the **consumer groups** for whom **prices** have been set, and describe-*
*(a) the rationale for grouping **consumers** in this way;*
*(b) the method and the criteria used by the **EDB** to allocate **consumers** to each of the **consumer groups**;*
*(6) If **prices** have changed from **prices** disclosed for the immediately preceding **disclosure year**, explain the reasons for changes, and quantify the difference in respect of each of those reasons;*
*(7) Where applicable, describe the method used by the **EDB** to allocate the **target revenue** among **consumer groups**, including the numerical values of the **target revenue** allocated to each **consumer group**, and the rationale for allocating it in this way;*

*(8) State the proportion of **target revenue** (if applicable) that is collected through each **price component** as **publicly disclosed** under clause 2.4.18.*

*2.4.4 Every disclosure under clause 2.4.1 above must, if the **EDB** has a **pricing strategy**-*
*(1) Explain the **pricing strategy** for the next 5 **disclosure years** (or as close to 5 years as the **pricing strategy** allows), including the current **disclosure year** for which **prices** are set;*
*(2) Explain how and why **prices** for each **consumer group** are expected to change as a result of the **pricing strategy**;*
*(3) If the **pricing strategy** has changed from the preceding **disclosure year**, identify the changes and explain the reasons for the changes.*

2.4.5 Every disclosure under clause 2.4.1 above must-
*(1) Describe the approach to setting **prices** for **non-standard contracts**, including-*
*(a) the extent of **non-standard contract** use, including the number of **ICPs** represented by **non-standard contracts** and the value of **target revenue** expected to be collected from **consumers** subject to **non-standard contracts**;*
*(b) how the **EDB** determines whether to use a **non-standard contract**, including any criteria used;*
*(c) any specific criteria or methodology used for determining **prices** for **consumers** subject to **non-standard contracts** and the extent to which these criteria or that methodology are consistent with the **pricing principles**;*
*(2) Describe the **EDB**'s obligations and responsibilities (if any) to **consumers** subject to **non-standard contracts** in the event that the supply of **electricity lines services** to the **consumer** is interrupted. This description must explain-*
*(a) the extent of the differences in the relevant terms between **standard contracts** and **non-standard contracts**;*
*(b) any implications of this approach for determining **prices** for **consumers** subject to **non-standard contracts**;*
*(3) Describe the **EDB**'s approach to developing **prices** for **electricity distribution services** provided to **consumers** that own **distributed generation**, including any payments made by the **EDB** to the owner of any **distributed generation**, and including the-*
*(a) **prices**; and*
*(b) value, structure and rationale for any payments to the owner of the **distributed generation**.*

2.2 Electricity Authority Distribution Pricing Principles

The Commission's final pricing principles are as follows:

Electricity Authority Pricing Principles
(a) Prices are to signal the economic costs of service provision, by:
(i) being subsidy free (equal to or greater than incremental costs, and less than or equal to standalone costs), except where subsidies arise from compliance with legislation and/or other regulation;
(ii) having regard, to the extent practicable, to the level of available service capacity; and

(iii) signalling, to the extent practicable, the impact of additional usage on future investment costs.
(b) Where prices based on 'efficient' incremental costs would under-recover allowed revenues, the shortfall should be made up by setting prices in a manner that has regard to consumers' demand responsiveness, to the extent practicable.
(c) Provided that prices satisfy (a) above, prices should be responsive to the requirements and circumstances of stakeholders in order to:
(i) discourage uneconomic bypass;
(ii) allow for negotiation to better reflect the economic value of services and enable stakeholders to make price/quality trade-offs or non-standard arrangements for services; and
(iii) where network economics warrant, and to the extent practicable, encourage investment in transmission and distribution alternatives (e.g. distributed generation or demand response) and technology innovation.
(d) Development of prices should be transparent, promote price stability and certainty for stakeholders, and changes to prices should have regard to the impact on stakeholders.
(e) Development of prices should have regard to the impact of transaction costs on retailers, consumers and other stakeholders and should be economically equivalent across retailers.

Nelson Electricity Commentary on compliance with Electricity Authority Pricing Principles

Nelson Electricity has prepared this pricing methodology in accordance with or as close as possible to the Electricity Authority Pricing Principles. One key difference is in the setting of controllable tariffs, any incentives in these areas are often lost through the interface the customer has with their electricity retailer. Additional meter costs for measuring controllable loads are typically loaded onto the controllable tariff reducing the pricing incentive for the line charge option.

Prices are set attempting to minimise cross subsidisation between load groups. A key success has been in the mass market with the combining of business and residential tariffs, excluding those who qualify and have the opted to be on the low fixed charge option as per the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004. This has reduced published pricing options for the mass market consumers also simplifying the pricing for electricity retailers to apply to their customers.

The NEL pricing recently has been set with the knowledge of the expenditure of some significant capital expenditure for a new 33kV feeder and replacement of Nelson Electricity's only zone substation. This is a significant lump of additional expenditure being spent over the 2012/2013 and 2013/2014 years. Upon completion in late 2013, the pricing for the Nelson Electricity network will be reviewed as there will be less reliance on ripple control for local network congestion peaks, and so there will be a more targeted pricing related to transmission. Currently Nelson Electricity balances out the utilisation of ripple control with the management of local network peaks as well as working with the Upper South Island line companies to minimise transmission peaks.

NEL currently offers tariff options for larger consumers to be on Time of Use (above 150kVA is compulsory). This option is of benefit if those consumers can manage their load during peak winter demand times and also incentivises the reduction of fused capacity. The consumer can choose what level of supply they require and will be charged accordingly noting that the winter demand charges are set in the winter and applied for the following 12 months.

The Nelson Electricity pricing structure has remained stable for a number of years. The structure promotes stability and certainty. This does also minimise the transaction costs for retailers. The pricing is transparent and all retailers have access to and are charged the same line charges for each different classification of consumer. Nelson Electricity has also taken into account retailer feedback into line charges. An example is the removal of a ripple control charge which was not part of the consumer's line charge and was charged on a per retailer basis. The charge was rolled into the consumer line charges, this assisted retailers in reducing transaction costs.

Overarching the pricing is that Nelson Electricity takes into account the requirements of its stakeholders. These are as follows:

Stakeholder	**Interests**
Electricity Customers and Retailers	Delivery of a safe, reliable, efficient and sustainable supply of electricity at minimum cost. Surveys across the board say that most consumers do not want to pay more for a more reliable network.
Government (Ministry of Innovation and Economic Development, Commerce Commission, Electricity Authority)	Legislate and control compliance of statutory requirements and economic efficiency.

Stakeholder	Interests
Landowners	Landowners with Nelson Electricity assets on their property have interests in safety, easements and access requirements.
Property Developers	Property developers wish to ensure that connection policies and costs are fair and that network expansion plans are timely.
Shareholders	Achievement of an adequate return on investment and good corporate citizenship.
Territorial Local Authorities	Territorial authorities have interests in minimising environmental impacts, development of underground power systems, local economic development and in the control of assets in road reserves.
Transit NZ	Transit NZ are interested in controlling assets in road reserves.
Transpower	Nelson Electricity relies on the Transpower grid to deliver electricity through to the Nelson Electricity network and Transpower relies on the Nelson Electricity network to deliver the electricity to end use customers.

Stakeholder interests have been identified and accommodated in the pricing of Nelson Electricity line charges through the following processes:

- The Nelson Electricity Board of Directors agrees to an annual Statement of Corporate Intent which details corporate strategy with respect to pricing.

    - To operate as a successful business in the distribution of electricity and other related activities;
    - To have regard among other things the desirability of ensuring the efficient use of electricity;
    - To ensure that all services and responses to maintenance and fault requirements are provided with an appropriate standard of customer service;
    - To maintain existing reliability and efficiency levels;
    - To adopt non-discriminatory pricing and network access policies for all users of the Nelson Electricity network;
    - To ensure that all resources, financial, physical, and human are utilised efficiently and economically;
    - To seek to provide an appropriate rate of return to shareholders not less than WACC and to seek to maximise the longer term value of shareholders' funds;
    - To provide for future development of the network through investigation and the acquisition of land and physical assets as is appropriate;
    - To ensure the company complies with all legislative requirements including health and safety legislation, and all industry initiatives in respect of safety in the workplace;
    - To be a good employer providing;
        - ✦ Remuneration consistent with performance,
        - ✦ A safe, satisfying and stimulating work environment,

- ✦ Equal employment opportunities.

- Corporate organisational goals and objectives support the pricing methodology consistent with the corporate mission.

- Regular surveys of residential, commercial and large user customers provide valuable feedback on pricing, security and reliability of supply which assists in network planning, and on the price-quality trade-off.

- Government and territorial authority legislation provides a key input into the way pricing is set.

Any conflicting stakeholder interests are managed by systems that ensure that appropriate levels of separation, accountability and authority are in place. Pricing decisions are ultimately made at Board level with appropriate supporting evidence and recommendations from the General Manager.

3. Distribution Network Characteristics

Nelson Electricity is supplying the following types of connections:

- Unmetered - 51 connections
- Domestic - 7,572
- Small/Medium Business - 1,393
- Larger Business (Time of Use) - 96

The Nelson Electricity pricing combines the domestic and small/medium businesses (Load Group 2) for the purposes of pricing as the characteristics are similar. The imposition of the Low User Fixed Charge Option has forced Nelson Electricity to introduce the low fixed charge option for domestic consumers using less the 8,000kWh per year (Load Group 1) which does result in some cross subsidisation between the two groups.

The network is centred on the business district of Nelson city and also the Port area. It has a larger proportion of business connections compared to most other networks in New Zealand as a result the network peaks are typically experienced in the morning instead of early evenings. The Nelson Electricity network peaks are highest during the colder winter mornings when business load increasing to start the day and domestic is dropping off after the morning breakfasts and showers, there is also a considerable level of electrical heating load as well.

The size of the network is small and as such there is no benefit in segmenting into different pricing areas. The prices are applied evenly across the whole network.

4. Discussion on the Existing Pricing Regime

The existing Nelson Electricity pricing has been developed and modified to cater to the changing dynamics of the Nelson Electricity network and to ensure there is a fair allocation of costs applied to the consumers. Nelson Electricity sells capacity, the ability for electricity retailers to supply consumers with electricity. The consumer limit is based on the fuses at the network connection point. The larger the fuses the greater the capacity available to the consumer at any time which potentially leads to higher capacity network infrastructure requirement to supply the network connection point.

4.1 Time of Use

The Time of Use pricing regime has not been changed since its introduction in the early 1990s. The line charges are split in to five separate categories and priced accordingly so to ensure there is no cross subsidisation. The pricing is transparent and the prices should incentivise the consumer to alter behaviour to minimise its line charges.

For Time of Use consumers the pricing is centred on the connection capacity (size of fuses or transformer) and contribution to the network peak demand. The consumer has the ability to change both of these to reduce their overall line charges and also assist in making the Nelson Electricity network more efficient. Most of the efficiency gains have already been achieved in this group given the pricing has been in place for a long period of time.

The weighting of the pricing has been modified between the categories over time to cater to the changing pricing signals required for the load group to match changing costs.

4.2 Mass Market

All Business and Residential consumers (using more than 8,000kWh per year) have been grouped together to optimise the Nelson Electricity mass market pricing. There used to be a pricing differential between business and residential consumers and over time this differential has been reduced and finally removed in 2009. It finally made it possible to link the two consumer groups together as it is also now extremely difficult to differentiate between the two groups where often there are businesses operating from home, or bed and breakfasts as examples. The linking of the groups also reduced the number of published line charge tariffs and simplified the pricing to be disclosed making it easier for retailers to administer Nelson Electricity prices and consumers easier to understand.

Nelson Electricity also wanted to incentivise larger mass market consumers to optimise their electrical consumption and capacity. This was achieved by changing the daily fixed line charge which was a one size fits all to a charge based on actual fuse size. This means that the larger mass market consumers pay a fixed line charge based on their connected fuse size which is their ability to consume a higher electrical demand. They also have the ability to reduce their fuse size (free of

charge) if they can change their load consumption behaviour. This line charge has proven successful with many consumers having their fuse sizes reduced which then provides for reserved network capacity to be utilised elsewhere.

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

One complication in this new capacity based fixed line charge is the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 which has meant that domestic consumer using less than 8,000kWh must have access to a line charge tariff of at most 15 cents per day. To comply with this regulation and to minimise tariffs, Nelson Electricity has had to set all domestic consumers fuse capacity at 15kVA. Currently a domestic consumer with a larger fuse size is only paying the standard price of the typical 15kVA connection.

The compounding effect is that the average domestic consumer on the Nelson Electricity network currently uses approximately 7,150kWh per year (based on 2012 consumption analysis) compared to 7,400kWh per year in 2008. This is 11% lower than the deemed average consumer as determined under this regulation. This exposes Nelson Electricity to more cross subsidisation as more consumers switch to this tariff.

Nelson Electricity is exploring options to remedy this issue to minimise the cross subsidisation that this regulation has created as it undermines the ability to adapt charges for changes in the network utilisation characteristics.

5. Changes to the 1 April 2013 Pricing

The Nelson Electricity line charges will be changing 1 April 2013. There are no changes to the base pricing methodology compared to the previous year.

In round terms, the local network revenue from line charges will remain around the same level while the transmission cost will increase by 18%. The balance of the split between fixed and variable between the local network and transmission has altered as is described in the Fixed v's Variable section of this document.

6. Derivation of Charges

The Derivation of charges is described in the following sections.

- Customer Groups
- Customer Group Statistics
- Allocation and Recovery of Network and Transmission Charges
- Cost Recovery per Load Group
- Fixed v's Variable Charges

6.1 Consumer Groups or Load Groups

Consumer Groups are based on typical load patterns, fuse size and annual kWh consumption. Consumers are grouped into 6 categories.

- Load Group 0
  Unmetered Load or Metered Builders Temporaries

- Load Group 1
  Domestic consumers Low User Option– Connections that are a domestic home that exhibit a typical domestic load profile using less than 8,000kWh per year. The connection is typically 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 domestic. A domestic type load profile not on Low User Option are typically categorised as Load Group 2.

- Load Group 2
  Domestic and Small Business consumers – Connections that are 15kVA up to 150kVA. Domestic consumers not on Low User Option are also in this group.

- Load Group 3
  Time of Use consumers with supply up to 2400kVA.

- Load Group 4
  Consumers with capacity supplied of greater than 3,000kVA with supply from a dedicated 11kV/400V substations.

6.2 Consumer Group Statistics

Statistics are collected and analysed as per the customer groupings as described in the previous section. This information is used as a base to NEL's pricing allocations as described further in this report. Information is as follows:

- Number of Connections per group.

Number of Connections

Load Group	Connections
0	51
1	2292
2	6672
3	95
4	1
Total	9,111

- Anytime Peak per group.

Anytime Peak

Load Group	Peak kVA
0	340
1	8,022
2	32,000
3	14,500
4	3,350
Total	58,212

- Winter Demand Peak per group.

Control Period Demand (Winter Demand)

kVA

Load Group	8:30 am - 11:30 am	5:00 pm - 6:00 pm	CPD Allocation
0	20	306	134
1	3,800	4,600	4,120
2	15,300	13,200	14,460
3	13,414	13,414	13,414
4	2,629	2,629	2,629
Total	35,143	33,843	34,757

NEL has a winter load that peaks between 8:30 am - 11:30 am and 5:00 pm - 6:00 pm. The morning load is predominantly business load and the evening peak is typically influenced by the domestic. The statistics required are to ensure the right pricing signals are sent to each group and that charges are as fair and equitable as possible to all connections. The Winter Demand is a critical part to the allocation of Transmission Costs between groups. It is also important when allocating costs for local network in allocating costs based on load group contribution to peak demand and maximum loading on assets).

- GWh per group.

GWh

Load Group	Winter	Summer	Total
0	0.79	0.79	1.58
1	5.72	5.38	11.11
2	36.21	35.60	71.81
3	20.38	25.88	46.26
4	5.92	7.71	13.64
Total	69.02	75.38	144.40

These figures are estimated consumption per Load Group with no loss allocation back to GXP. Winter months are May – September, summer months are October – April.

- Regulatory Value of System Fixed Assets at 31 March 2012 per group allocation

	Regulatory Value of System Fixed Assets					
Asset Group	**0**	**1**	**2**	**3**	**4**	**Total**
33kV Lines	$19,168	$221,127	$1,098,374	$819,075	$205,404	$2,363,147
Zone Sub	$8,260	$95,287	$473,309	$352,954	$88,512	$1,018,322
11kV Lines	$58,405	$673,788	$3,346,816	$2,495,774	$625,880	$7,200,663
11kV/400V Sub	$45,962	$596,308	$2,819,149	$1,964,073	$246,271	$5,666,629
400V Lines	$85,574	$1,189,333	$5,628,968	$3,656,776	$0	$10,550,317
Other	$13,764	$158,786	$788,717	$588,159	$147,496	$1,696,922
Total	**$231,133**	**$2,934,629**	**$14,155,332**	**$9,876,811**	**$1,313,563**	**$28,496,000**

Regulatory Asset Base Valuation allocation is assessed on each load group's utilisation of assets. As an example, Group 4 does not utilise any of the 400V lines so there is no value assigned.

- Cost of Capital (After Tax)

WACC = Rd(1-Tc)D/V + ReE/V	**8.21%**	
Rd	7.40%	pre-tax cost of debt
Tc	28.00%	corporate tax rate
Re	10.14%	cost of equity
D	40.00%	target debt:equity ratio
E	60.00%	target debt:equity ratio
V	100.00%	D + E
Cost of Equity = Rf(1-Ti) + BeMRP	**10.14%**	
Rf	5.40%	rate of return on risk free asset
Ti	28.00%	investor tax rate
Be	0.83	equity beta
MRP	7.50%	market risk premium
Ba	0.50	asset beta

The above methodology is based on advice from Marlborough Lines Ltd, a shareholder of Nelson Electricity Ltd.

On the basis of the above input parameters, the NEL Weighted Average Cost of Capital (WACC) is 8.21% of Regulatory Asset Base = $2,340k.

6.3 Allocation and Recovery of Network and Transmission Charges

Network Charges are set to recover indirect operating costs, direct operating costs, depreciation and cost of capital. The setting of the charges also takes into account historical charging practices and methodologies.

The company annual revenue requirements for 2013 are:

Operating Costs (Network R&M)	$686k
Transmission Costs	$3,127k
Overhead Costs	$2,021k
Depreciation	$1,632k
Target Return (before tax)	$2,660k

With the Nelson Electricity being a small predominantly urban network there was no need to sectionalise it into separate pricing areas.

6.4 Cost Recovery per Load Group

Following is a table outlining the cost recoveries per load group.

Load Group	Operating	Transmission	Overhead	Depreciation	Target Return	Total
0	$25,564	$19,530	$16,392	$13,237	$29,089	$103,813
1	$70,647	$217,970	$208,130	$168,070	$204,821	$869,638
2	$380,769	$1,683,636	$1,003,928	$810,693	$2,276,721	$6,155,747
3	$177,770	$1,014,118	$700,486	$565,657	$126,998	$2,585,029
4	$31,622	$191,746	$93,161	$75,229	$20,015	$411,773
Total	$686,000	$3,127,000	$2,021,000	$1,632,000	$2,660,000	$10,126,000

The methodology used for the above cost apportionment is as follows:

- Operating Costs – Operating costs is the Operational Expenditure Budget that covers both the planned and unplanned network R&M expenditure on the network. The Operational Expenditure Budget is split into the different asset types as per the Regulatory Asset Value of System Fixed Assets table groups. The asset group expenses are then allocated to each load group according to the valuation proportions for each asset group.

- Transmission Costs – Transmission costs are an unavoidable cost, it covers the upstream costs from our sub-transmission connection point at HVN0331. The major component in transmission costs is the Interconnection charge (system peak based). Transmission peaks are typically encountered during mid-winter. Transmission costs are split between load groups based on their influence on these peaks.

- Overhead Costs – Are apportioned by using two measures; the number of network connections and the maximum demand of the load group. This gives a balance of spreading overhead costs between the business of selling capacity and the number of consumers connected.

- Depreciation – This is apportioned by using the assessed depreciation using the NEL Regulatory Asset Base model.

- Target Return - This is apportioned to load groups as per the Regulatory Asset Base % split per load group. It is, however, important to note that the Regulatory Asset Base valuation for assets installed prior to 2004 still undervalues the underground network value and so the target return takes this into account.

6.5 Fixed v's Variable Charges

The proportion of charges that are fixed and variable have been set based on the historical pricing methodologies. NEL has maintained a pricing mix that has been consistent for over ten years and as the previous pricing methodology was working, there was no compelling reason to change to proportions.

The only major variation has been the provision of a low daily fixed charge option for domestic consumers as required under the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004. This introduces a cross subsidisation, which the pricing structures of previous years had been designed to remove.

Currently overall the proportions between fixed and variable line charges are 50% Fixed and 50% Variable. Groups 1 and 2 have a higher variable proportion while groups 3, 4, and 5 have a higher fixed proportion.

NEL is in the business of selling capacity and most of its costs as identified above are fixed. If the true proportion of fixed and variable costs were charged in the same proportions to all consumers, the fixed charge proportion of groups 1 and 2a consumers would increase significantly with the variable charges reduced.

- **Load Group 0 – Unmetered and Builders Temporary**
  Builders Temporary (metered) - Network costs are broken down into the following:

  - Fixed Daily Charge
  - Variable kWh Charge.

  For the average Builders Temporary, fixed charges recover approximately 60% of total network costs.

  Unmetered Supply – Network costs are fully fixed with no variable.

- **Load Group 1 – Domestic Consumers (Low User)**
  Network costs are broken down into the following:

  - Fixed Daily Charge based on connection capacity of 15kVA
  - Variable kWh Charge. This charge value depends on whether the load is controlled by ripple control or uncontrolled.

  For the average Group 1 customer, fixed charges recover approximately 8.5% of total network costs.

- **Load Group 2 – Connections from 15kVA – 150kVA (Non Time of Use)**
  Network costs are broken down into the following:

  - Fixed Daily Charge (based on fuse capacity [in kVA)].
  - Variable kWh Charge. This charge value depends on whether the load is controlled by ripple control or uncontrolled.

  For the average Group 2 customer, fixed charges recover approximately 45% of total network costs. At 8,000kWh per year, 36% at 12,000kWh per year.

- **Load Groups 3 – Time of Use Consumers**
  These charges are for the larger installations on the network. These sites have Time of Use metering installed. NEL can set network charges based on the individual sites configuration and usage pattern accurately. Network Costs are broken down into four categories.

  - Installation Charge – This is a fixed per installation charge.
  - Capacity Supply Charge – Based on the installations fuse size or transformer size.
  - Winter Demand – This is the installations maximum half hour demand in the Winter Demand time zones as described earlier.
  - KWh Charge – A variable charge based on the kWh consumption.
  - Power factor charge for sites that have a pf < 0.95.

  The overall proportion of fixed v's variable charges for Time of Use consumers varies greatly due to the differing types of consumers. This pricing methodology attempts to ensure every Time of Use consumer pays its fair share of line charges and is not subsidized by other Time of Use consumers. The average consumer will have approximately 62% charges as fixed charges.

- **Load Group 4 – Large Time of Use Site**
  The line charges for this group are split into two areas fixed and power factor charge if pf < 0.95.

  There is no variable component to this group. A total annual charge is assessed based on the infrastructure on site and also a share of the upstream network (including transmission) and divided into the 12 months.

7. Future Changes

Nelson Electricity is mindful that in the coming years smart metering will be rolled out in the Nelson area. This means there will be an increased ability for consumers to react to differing pricing signals. Nelson Electricity has undertaken some work with regard to pricing structures and will be looking to implement these changes when appropriate. There will be the complication of an increase the number of tariff options available to consumers. Through this process Nelson Electricity will work to minimise the potential additional cross subsidisation that may occur with the two type of metering (half hour and non-half hour) with the consumer potentially being able to opt for one or other. The increased information available to Nelson Electricity will help in the future planning of the network and also the allocation of costs for line charges.

Nelson Electricity will also be looking to change the fixed charge for all Group 2 consumers and also confine the definition of a domestic consumer eligible for the Group 1 Low User Option to domestic consumers with a fuse size no greater than 15kVA. The existing fixed charge will be based on actual fuse size greater than or equal to 15kVA (currently all domestic connections are assessed at 15kVA). Currently all domestic consumers have fuse size assessed at 15kVA (for line charge purposes). Making this change removes the cross subsidisation of larger capacity domestic consumers with the smaller capacity consumers. It will ensure larger capacity connections contribute a higher level of line charges and also encourage them to modify their behavior and reduce their fuse size.

Any changes to the Nelson Electricity pricing structure will be discussed with all retailers as per the current Use of Systems Agreement well in advance of the change. Nelson Electricity has always welcomed any suggestions and has in the past modified line charge structures to accommodate retailer concern or suggestions. Nelson Electricity will also advise all consumers if there is a fundamental change to their line charge pricing. The potential fixed line charge change for group 2 consumers will be advertised to those affected and promote their ability to down grade capacity to as low as 15kVA to minimise their fixed line charges. Any fuse downgrade would be undertaken at no charge to the consumer.

Consumption Trends

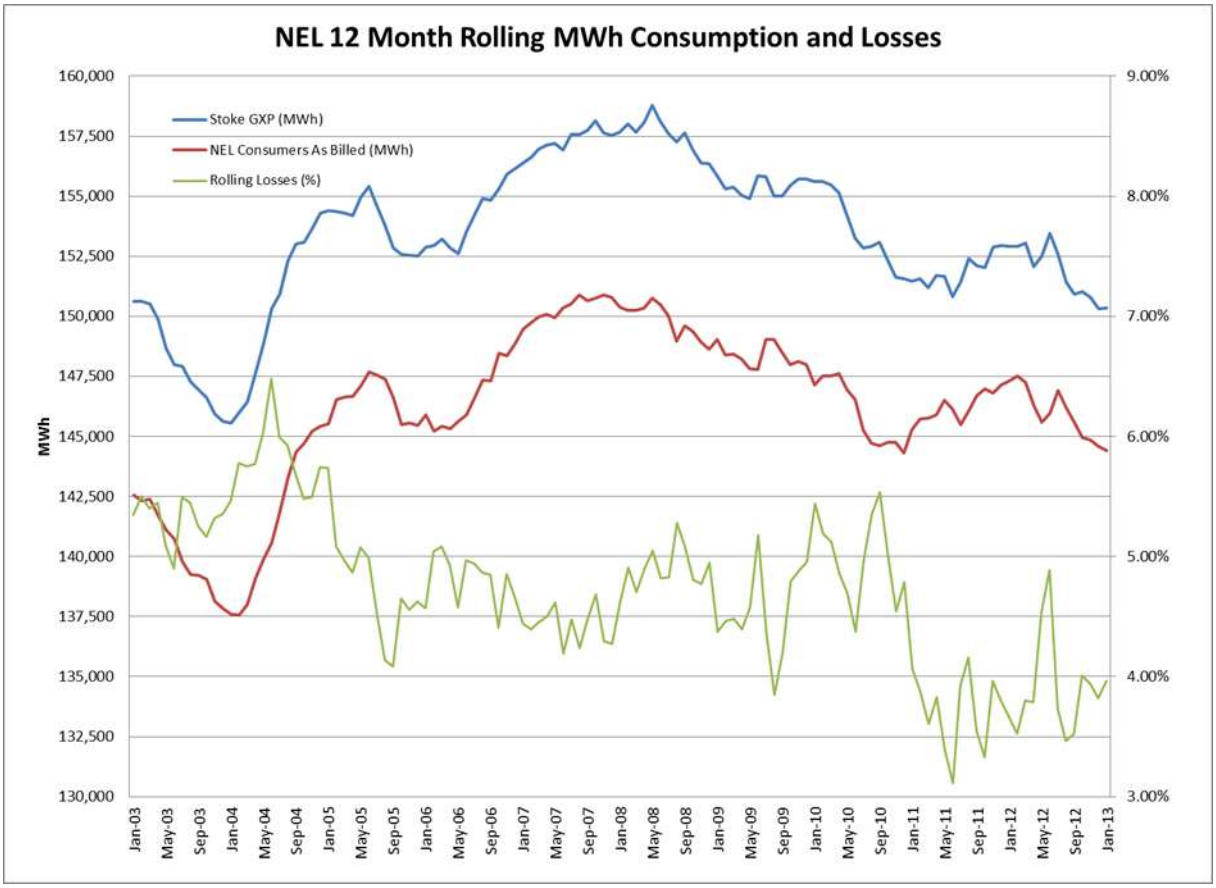
Overarching the future changes is that electricity consumption on the Nelson Electricity network has been declining since 2008. Analysis of all consumer groups gives some indications as to where the changes are taking effect. There is still a slow shift of residential consumers to the low user fixed charge option. Analyses of billing reports have shown that the average residential consumption on a per consumer basis has decreased 3.5% since 2008 to 7,135kWh per consumer. Other load groups are also showing a noticeable reduction in consumption. In total it is a reduction of 2.5GWh for the last 12 month period as assessed up to December 2012.

This reduction in consumption is real as the GXP consumption is reducing and network losses remain stable. It is, however, uncertain whether the decline will continue as there are a number of factors influencing the consumption trend. There is a revenue impact with reduction of consumption and this is complicated by the

DPP regime with allowable revenues being based on growth forecasts which are differing from reality.

Some of this decrease in consumption in the consumer groups has been offset in part by the small increase of consumer numbers over the four year period but this is only approximately 0.5% growth in connections per year. This does not make up for the declining kWh consumption with the current line charge revenue balance.

Also given that the costs associated with operating an electricity network are predominantly fixed and not linked to kWh consumption to maintain a revenue neutral position for Nelson Electricity in principle (excluding any ability to change prices as part of the DPP), it is likely that these costs may be apportioned over less kWh. The impact on total line charges paid for the average consumer should be neutral as a result.



The uncertainty on the kWh consumption trends does influence the long term pricing for Nelson Electricity. To continue with the potential ongoing declining kWh consumption will undermine the ability to derive an appropriate return (based on current pricing mix) that meets the requirements for Nelson Electricity. It makes sense to protect the revenue to a degree by rebalancing over time the fixed v's variable charges in the mass market load groups loading more local network charges into the fixed charge. This may be seen as a departure from the Electricity Authority pricing principles but is considered necessary for Nelson Electricity to protect its ongoing revenue.

8. Non Standard Contracts

Nelson Electricity will consider offering a non-standard contract to consumers it can be demonstrated that there is a benefit to both parties to do so. The key consideration would be if the consumer is large enough typically over 1,000kVA connected capacity and can manage peak load for the benefit of minimising any peak demand times, either transmission or network related.

The management of peak load could be through load shedding or utilisation of distributed generation.

Currently there is one non-standard contract in place and all other consumers are charged as per the pricing schedule attached to this document. The expected revenue to be received in the upcoming year is $412k from the one non-standard contract.

In determining a non-standard contract line charge, Nelson Electricity would determine the potential reduction in costs associated with a consumer connection if they were able to manage their load in a particular way. An example is a consumer being able to manage load in the transmission upper South Island peak demand times with greater accuracy than the current time of use pricing allows. This may result in a lowering of transmission charges for Nelson Electricity which the consumer could benefit from.

Nelson Electricity will consider any application from a consumer for a non-standard if it can be demonstrated that there is a benefit for both parties to do so.

9. Distributed Generation

Nelson Electricity allows the connection of distributed generation to its network. There are additional requirements for these connections to satisfy Nelson Electricity that these connections are safe. The requirements are posted on the Nelson Electricity Website www.nel.co.nz.

While these connections can inject electricity back into the Nelson Electricity network the timing of this if through solar is not at a time when Nelson Electricity would benefit and assist in reducing network costs. Nelson Electricity infrastructure is designed to meet the peak capacity of the network which is on the coldest winter mornings when there is high levels of cloud cover.

For this reason, Nelson Electricity does not offer any pricing benefit for distributed generation connections.

Nelson Electricity will be reviewing the costs associated with processing new distributed connections and auditing of the connections as there are additional costs associated with managing these connections to ensure they comply with appropriate standards.

10. Independent Review on Pricing Methodology Compliance

Nelson Electricity will have an independent review undertaken on this Pricing Methodology during the year focussing on how the methodology complies with the Electricity Distribution Information Disclosure Determination and the Electricity Authority Distribution Pricing Principles.

As a result of this review this Pricing Methodology may be amended and re-disclosed part way through the 2013/2014 year.

11. Pricing Schedule

Nelson Electricity Line Prices

From 1 April 2013

NELSON ELECTRICITY LTD

Nelson Electricity Ltd is adjusting electricity line charges effective 1April 2013.

The line charges cover the cost of local electricity distribution and national electricity transmission. Line charges form part of the total power bill you receive from your electricity retailer.

Nelson Electricity distributes electricity to connections in the central Nelson city including most of the Port, Port Hills, Vanguard/St Vincent Street, Hospital, Brook, Wood and CBD areas.

				New Line Charges from 1 April 2013			Line Charges up to 31 March 2013		
Price Option	**Price Description**	**Consumer Numbers**	**Unit Charges**	**Local Line**	**National Line**	**Total Line**	**Local Line**	**National Line**	**Total Line**
Load Group 0									
Builders Temporary (7kVA)		12							
0-BT	Builders Temp - Fixed		cents/day	60.00	0.00	**60.00**	56.00	0.00	**56.00**
0-BT	Builders Temp - Anytime		cents/kWh	6.20	2.46	**8.66**	6.17	2.05	**8.22**
Unmetered Connection (< 1kW)		29							
0-UM	Unmetered - Fixed		cents/day	6.00	0.00	**6.00**	5.60	0.00	**5.60**
0-UM	Maximum Demend		cents/kW/day	60.00	42.00	**102.00**	59.00	35.00	**94.00**
Streetlighting		1							
0-SL	Streetlight		$/day	221.59	51.53	**273.12**	218.06	42.94	**261.00**
Load Group 1									
Domestic Low User (15kVA)		2133							
1-Fixed	Fixed		cents/kVA/day	1.00	0.00	**1.00**	1.00	0.00	**1.00**
1-24hr	Anytime		cents/kWh	6.17	2.49	**8.66**	6.17	2.05	**8.22**
1-Water	Controlled (Hot Water)		cents/kWh	3.76	1.51	**5.27**	3.76	1.24	**5.00**
1-Night	Night Rate (11pm-7am)		cents/kWh	2.55	0.88	**3.42**	2.53	0.72	**3.25**
Load Group 2 (from 15kVA to 150kVA)									
Domestic and Business		6850							
2-Fixed	Fixed		cents/kVA/day	5.34	0.00	**5.34**	4.80	0.00	**4.80**
2-24hr	Anytime		cents/kWh	2.66	2.49	**5.15**	3.10	2.05	**5.15**
2-Water	Controlled (Hot Water)		cents/kWh	1.59	1.51	**3.10**	1.86	1.24	**3.10**
2-Night	Night Rate (11pm-7am)		cents/kWh	1.22	0.88	**2.10**	1.38	0.72	**2.10**
Load Group 3 LARGE BUSINESS (up to 2400kVA)									
TIME OF USE		96							
	Metered Installation		cents/day	110.00	0.00	**110.00**	110.00	0.00	**110.00**
	Winter Demand (kVA)		cents/kVA/day	12.74	8.51	**21.25**	12.00	7.00	**19.00**
	Energy		cents/kWh	0.48	1.22	**1.70**	0.70	1.00	**1.70**
	Capacity Supplied								
	T-03	16kVA – 42kVA	$/day	2.02	0.00	**2.02**	2.02	0.00	**2.02**
	T-04	43kVA – 69kVA	$/day	3.31	0.00	**3.31**	3.31	0.00	**3.31**
	T-05	70kVA – 110kVA	$/day	5.28	0.00	**5.28**	5.28	0.00	**5.28**
	T-06	111kVA – 138kVA	$/day	6.62	0.00	**6.62**	6.62	0.00	**6.62**
	T-07	139kVA – 218kVA	$/day	10.46	0.00	**10.46**	10.46	0.00	**10.46**
	T-08	219kVA – 300kVA	$/day	14.40	0.00	**14.40**	14.40	0.00	**14.40**
	T-09	301kVA – 500kVA	$/day	24.00	0.00	**24.00**	24.00	0.00	**24.00**
	T-10	501kVA – 750kVA	$/day	36.00	0.00	**36.00**	36.00	0.00	**36.00**
	T-11	751kVA – 1000kVA	$/day	48.00	0.00	**48.00**	48.00	0.00	**48.00**
	T-12	1001kVA – 1500kVA	$/day	72.00	0.00	**72.00**	72.00	0.00	**72.00**
	T-13	1501kVA – 2000kVA	$/day	96.00	0.00	**96.00**	96.00	0.00	**96.00**
	T-15	2400kVA	$/day	115.20	0.00	**115.20**	115.20	0.00	**115.20**
	Power Factor <0.95		$/kVAr/mth	6.00	0.00	**6.00**	6.00	0.00	**6.00**

All prices are GST exclusive. All pricing is available on our website www.nel.co.nz

Load Group 0 - Unmetered loads that meet Electricity Authority Unmetered Load Guidelines and Builders Temps.(Builders Temp > 7kVA use Load Group 2)

Load Group 1 - Domestic households with connection capacity of 15kVA using less then 8,000kWh per year (Low Fixed Tariff Option)

Load Group 2 - Available to all domestic and business connections with capacity from 15kVA to 150kVA.

Load Group 1 & 2 - All current domestic households have an assessed connection capacity of 15kVA.

Load Group 3 - Available to any Time of Use connections up to 2400kVA

Any questions about the line charges, please email us at enquiry@nel.co.nz, or phone (03)546-0486.