



**Pricing methodology 2016 - 2017**

**Pursuant to the Electricity Distribution  
Information Disclosure Determination 2012**

**&**

**Electricity Authority Distribution Pricing  
Principles and Information Disclosure Guidelines**

**March 2016**



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## Certification for Year-Beginning Disclosures

Pursuant to Schedule 17

Clause 2.9.1 of section 2.9

### Electricity Distribution Information Disclosure Determination 2012

We, Clare Margaret Kearney & Anthony James Wood, being directors of Network Waitaki Limited certify that, having made all reasonable enquiry, to the best of our knowledge:

- a) The following attached information of Network Waitaki Limited prepared for the purposes of clause 2.4.1, disclosure of pricing methodologies, 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.

  
Clare Margaret Kearney

  
Anthony James Wood

Dated: 29 February 2016

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## LIST OF ABBREVIATIONS

ADMD	After Diversity Maximum Demand
AMP	Asset Management Plan
DLU	Domestic Low User
EA	Electricity Authority
EDB	Electricity Distribution Business
GXP	Grid Exit Point
HV	High Voltage
ICP	Interconnected Control Point
ID	Information Disclosure
IND	Individually Assessed Customers
kV	kilo volt
kVA	kilo Volt Ampere
kW	kilo Watt
kWh	kilo Watt hour
LV	Low Voltage
LFC	Low Fixed Charges
NWL	Network Waitaki Limited
ODV	Optimised Deprival Value
ORC	Optimised Replacement Cost
RCPD	Regional Co-incident Peak Demand
TOU	Time of Use
Transpower	New Zealand Limited
V	Volt

# 1 INTRODUCTION

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This document describes the methodology that Network Waitaki Limited (NWL) has used in determining its Distribution and Transmission prices from 1 April 2016 until the next review.

## 1.1 Legislative Compliance

This document has been compiled to comply with the Commerce Commission's Electricity Distribution Information Disclosure Determination 2012 (2012 IDR), clause 2.4, Pricing and Related Information, covering an Electricity Distribution Business's (EDB's) pricing methodology.

As part of the disclosures made under clause 2.4 of the 2012 IDRs, clause 2.4.3(2) requires that an EDB demonstrate the extent to which its pricing methodology is consistent with the Electricity Authority's March 2010 Pricing Principles (EA Principles and Guidelines). The EA Principles and Guidelines, and NWL's compliance with them are detailed in Appendix 2 of this document.

A detailed summary of how NWL complies with the 2012 IDRs and which sections of this pricing methodology comply with each requirement can be found in Appendix 4.

In previous years NWL charged the same volume (\$/kWh) prices to all of its mass market consumers. However, from 1 April 2015 it has charged different day and night volume prices to Domestic Low User (DLU) consumers. At the 9,000 unit average domestic household consumption level for the Lower South Island, DLU consumers will pay no more than standard price plan consumers, so NWL will remain compliant with the Government's Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 (DLU Regulations)

## 1.2 Changes to NWL's pricing methodology

There have been no material changes to NWL's pricing methodology, approach and rationale since the last methodology was published in March 2015.

For the future NWL do foresee conducting a cost of supply exercise, pricing review and subsequent possible amendments to the pricing methodology without compromising any of the EA's pricing principles.

# 2 PRICING METHODOLOGY

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The pricing methodology is based on certain pricing objectives, an identification of NWL's full cost (including a return on investment) to be recovered through prices which then culminates in the revenue requirement.

## 2.1 Pricing objectives

### 2.1.1 Revenue

NWL must obtain sufficient revenue to:

- meet its contractual obligations for connection to the Transpower National Grid;
- meet its contractual obligations for the delivery of energy over its distribution network;

- comply with statutory requirements on public safety, environmental protection, and quality of supply;
- provide for new investment; and
- provide a rate of return on funds that is acceptable to its owners.

To meet the revenue requirement, NWL uses the following principles:

- to provide pricing which is simple to understand and administer and which complies with regulations;
- to maintain the stability of historic pricing regimes in order to lessen price shocks to consumers;
- to provide pricing which will not differentiate between urban and rural consumers;
- to provide pricing which allows the network to be operated safely, reliably, and efficiently; and
- to provide pricing which allows for an adequate level of return to NWL's shareholders.

### **2.1.2 Discount**

NWL has a policy of paying discounts to qualifying consumers towards the end of each financial year. Except when noted otherwise, all revenues stated in this pricing methodology are before the payment of any discount. NWL's discount to consumers is comprised of a non-discretionary component and a discretionary component. The non-discretionary component is a guaranteed amount that will be discounted to consumers in NWL's various consumer load groups as per its public price announcements made before the start of the April pricing year. The amount of the discretionary component is determined by trading conditions during the year, as determined by NWL's Board, and announced in the following March of the year in question.

For both discretionary and non-discretionary discounts, the discount offered is typically a set proportion of the fixed component of each price. The exception being the discount payments to DLU consumers, who under the DLU Regulations must receive discounts that are the same as equivalent standard consumers. DLU15U consumers, thus receive the same discount as 15U consumers, DLU15C consumers receive the same discount as 15C consumers. Aside from the exception for DLU consumers, by setting discounts as a set proportion of the fixed component of each price, consumers are rewarded equally through the application of the discount without any regard for their consumption mix across prices.

### **2.1.3 Efficiency**

For Standard Contracts this applies as follows:

- Low Fixed prices and high day / low night volume prices that encourage off-peak usage and up to now has complied to NWL's philosophy of the "user pays";
- Monitoring power factors;
- Maintain loss factors.
- Load control to minimise transmission charges.

NWL's simple price structure, which uses volume units metered at the Grid Exit Point (i.e. GXP Pricing) is also more efficient as it avoids the cost of duplicating retailer Installation Connection Point (ICP) billing software and data management.

For Individually Assessed Contracts (IND) efficiency is promoted as follows:

- Efficient investment in network by bulk consumers.
- Ongoing efficient operation of the network by signalling the capacity and demand costs of the delivery of electricity to each consumer of this type.

#### **2.1.4 Fairness**

As a supplier of essential services NWL has endeavoured to set fair and reasonable prices for each consumer group, however, given the wide variations in usage within each consumer group, achieving a fair price is a complex objective. What one customer perceives as fair may be perceived by another customer as unfair based solely on their usage patterns.

Customers are placed in load groups based on the capacity of supply they require. The prices applied to each group reflects the value of the assets that they use, based on both group capacity and demand.

IND customers are subject to individual prices that reflect their use of network assets together with the associated transmission costs.

#### **2.1.5 Simplicity**

NWL has a simplistic, “easy to understand” pricing structure.

#### **2.1.6 Transparency**

For transparency NWL follows a philosophy of setting prices such that they reflect costs and allow consumers to respond in a positive manner.

#### **2.1.7 Consumer Engagement**

In February 2015, NWL conducted a phone survey of a random sample of 400 of its mass market consumers, as well as face-to-face interviews with 14 of the largest consumers on its network. Consumers were asked if they would prefer to either:

- Pay more for a higher level of service that would keep outages to a minimum;
- Pay the same and maintain the same level of service with outages kept about the same; or
- Pay less for a slightly lower level of service with the possibility of slightly more outages.

A large majority of consumers said they would prefer to pay the same as they are paying now in return for a similar level of service. As detailed in paragraphs 2.2 and 2.3, NWL faces increasing costs that need to be recovered, so price increases are necessary. However, NWL has attempted to keep increases to a minimum level that will maintain the same level of service to its consumers.

## **2.2 Cost structure**

NWL's main cost components are as follows (discounts are not included as a cost to be recovered):

### **2.2.1 Operation and Maintenance**

- Maintenance costs are based on the NWL Asset Management Plan (AMP), with the allocation of costs between asset categories being determined by the 2016-2017 maintenance budget.
- Operating costs include all other network direct and indirect expenses excluding administration costs. The total figure is equivalent to the NWL 2016-2017 budget, and is allocated across network components on the basis of Optimised Replacement Cost (ORC).

### **2.2.2 Depreciation**

Depreciation for each asset is calculated by dividing the financial carrying value of network property, plant and equipment by the standard life (through optimized deprival valuation) for that asset, which results in a very long depreciation period with a correspondingly low depreciation requirement.

### **2.2.3 Return on Asset**

A provision for future investment in the network based on the 2016-2017 budget. This provision aims to:

- provide for growth;
- deliver appropriate service standards where network usage has changed; and
- replace assets that have reached the end of their economic life with modern solutions.

### **2.2.4 Administration**

A provision for support services related to distribution costs, based on the 2016-17 budget.

### **2.2.5 Recoverable and Pass-Through Cost**

Recoverable costs consist of:

- Transmission prices,
- Avoided transmission costs; and
- New investment contracts.

Pass-through costs cover:

- Local authority rates,
- Electricity Authority levy,
- Commerce Commission levy; and
- Electricity and Gas Complaints Commissioner levy.



Transmission prices are determined by Transpower New Zealand Limited (Transpower) according to the EA’s Transmission Pricing Methodology currently in effect, and comprises the following price components:

- Interconnection Charge

This charge is based on the average of the 100 highest half-hour coincident regional peak demands. The prices for the 2016-2017 financial year are based on the demands recorded between 1 September 2014 and 31 August 2015. All of the NWL GXPs are located in the Lower South Island region.

- Connection Charge

This charge represents the fixed costs associated with the dedicated assets at each GXP. Shared assets are allocated on the basis of each off-take customer’s share of the 12 highest half-hour demand peaks measured at the GXP.

- Avoided transmission costs are associated with transmission assets that have been provided by NWL rather than by Transpower. In many instances, distributors can provide certain classes of transmission assets at a lower cost to consumers than assets provided by Transpower.

### 2.2.6 Capital Costs

NWL is currently in a period of some capital growth that is mainly being driven by irrigation. In addition, a number of major assets are becoming capacity-constrained requiring new assets or the upgrading of existing assets. Capital expenditure will therefore continue to exceed the norm as capacity is increased. Additional information concerning the assumptions governing NWL capital investment can be found in NWL’s AMP.

### 2.3 Annual Revenue Requirement

The revenue as required to cover the costs and return on investment of NWL’s line business activities for 2016-17 are given in Table 1 below. The amount of the non-discretionary discount to consumers is noted in the table for information purposes, but is not part of NWL’s revenue requirement.

The distribution component of Network Waitaki’s prices increased by 1.3% and the transmission component increased by 4.7%. The overall weighted average increase amounted to 2.5% from last year.

Table 1: Annual Revenue Requirement

REVENUE REQUIREMENT		
	2015-16	2016-17
Operation and Maintenance	\$3,187,590	\$3,549,933
Depreciation	\$3,614,980	\$3,380,715
Administration	\$1,281,275	\$1,415,661
Return on Regulatory Assets	\$2,910,413	\$3,563,666
Transmission	\$5,388,560	\$5,691,973
Pass-through	\$206,033	\$211,874
<b>Total Revenue Requirement</b>	<b>\$16,382,818</b>	<b>\$17,813,822</b>

## 2.4 Allocation of Required Revenue Components to consumers load groups

NWL's current methodology allocates costs based on estimated usage of network assets valued at the 2004 ODV, but as this may no longer be fully applicable, NWL has chosen not to show those allocations in the current methodology.

Once more consumption data is available it will be possible for NWL to identify in detail exactly where and when network assets are utilised by different consumer groups, and if the consumer groups it has defined based on connection capacity are reflective of actual consumer groups with common usage behaviour.

In the meantime NWL plans to do a cost of supply exercise with the information currently available and will use the results in considering changes to the price methodology without compromising any EA pricing principle.

Table 2 below reconciles NWL's revenue requirement to the overall consumer groupings of Small, Medium, Large and Individually Assessed Contract consumers. Revenue is apportioned over the standard load consumer groupings based on the revenue shares reported for these groups in NWL's Information Disclosure to the Commerce Commission for the year ended 31 March 2015.

Table 2: Allocation of target revenue to consumer groupings

ALLOCATION OF TARGET REVENUE		
	Distribution	Transmission
<b>Small Consumers:</b> DLU15U, DLU15C, 15U, 15C	\$4,292,477	\$1,816,513
<b>Medium Consumers:</b> 30U, 30C, 50U, 50C	\$1,956,143	\$808,565
<b>Large Consumers:</b> 100, 200, 300, 500, 750	\$4,686,597	\$1,811,025
<b>Individually Assessed Contracts</b>	974,757.00	\$1,467,744
<b>Total Target Revenue</b>	<b>\$11,909,975</b>	<b>\$5,903,847</b>

It should be noted that NWL has previously estimated that consumers connected to the Oamaru GXP (Oamaru being the main urban centre on NWL's network) are responsible for nearly 90 per cent of network demand. It therefore may be the case that existing load group definitions that do not differentiate between consumers based on location, i.e. between urban and rural consumers, are accurate.

Further, NWL has a capital contributions policy that charges consumers when they initially connect for line extensions and future network development needs over the whole of the network. NWL considers that this in part justifies current consumer groups and their lack of differentiation based on location.

## 3 NWL CONSUMER LOAD GROUPS & PRICING STRUCTURES

NWL consumer load groups fall into two main categories, namely:

- Standard Contract Consumer Load Groups where network costs are recovered by means of a fixed annual price applicable to the particular consumer load group, and a day/night volume (kWh) price as shown in the schedule of delivery prices in Appendix 1. The majority of NWL consumers are on standard contracts which mean that they have a supply contract with a retailer and not with NWL.

- Individually Assessed Contract consumers where network costs are recovered by means of a fixed annual price based on the individual customer’s asset usage, capacity requirements, and contribution towards the system peak demand.

**3.1 Standard Contract Consumer Load Groups**

Load groups are based on the standard distribution transformer capacities used on the network, with no distinction being made between a single-phase and three-phase connection.

The minimum connection capacity for a single-phase supply is 15kVA, while the minimum connection capacity for a three-phase supply is 30kVA.

Consumers are allocated into the various load groups based on their contracted connection capacity, with no distinction being made between domestic (residential) and non-domestic (non-residential) connections with the exception of the Domestic Low User (DLU) (Residential Low User) category which is available only to primary domestic supplies, and applies irrespective of the connection capacity.

The groupings at different kVA ratings are made because KVA is a measure of service capacity and so is reflective of the costs incurred to serve each group.

In line with the exemption dated 14 August 2015 received from the Minister of Energy and Resources the following price plans have been removed for LFC user categories: Homes with greater than 15kVA supply.

The current NWL Consumer Load Groups are:

<b>Load Group</b>	<b>Description</b>	<b>Maximum Fuse Rating</b>
<b>DLU15C</b>	Domestic Low User 15C	1x 63A fuse
<b>DLU15U</b>	Domestic Low User 15U	1x 63A fuse
<b>15C</b>	0 - 15kVA controlled	1 x 63A fuse
<b>15U</b>	0 - 15kVA Uncontrolled	1 x 63A fuse
<b>30C</b>	16 - 30kVA Controlled	1 x 100A fuse or 3 x 40A fuses
<b>30U</b>	16 - 30kVA Uncontrolled	1 x 100A fuse or 3 x 40A fuses
<b>50C</b>	31 - 50kVA Controlled	3 x 80A fuses
<b>50U</b>	31 - 50kVA Uncontrolled	3 x 80A fuses
<b>100</b>	51 - 100kVA	3 x 160A fuses
<b>200</b>	101 – 200kVA	3 x 315A fuses
<b>300</b>	201 – 300kVA	3 x 400A fuses
<b>500</b>	301 – 500kVA	NA
<b>750</b>	501 – 750kVA	NA
<b>IND</b>	Individually Assessed	NA

**Street lighting** is a specialist load group which utilises dedicated LV assets and is covered by an Individually Assessed Contract.

### **3.2 Distribution Fixed Prices for Standard Contract Consumer Load Groups**

Although the majority of network costs are fixed, passing these costs through to consumers as a predominantly fixed cost would not provide consumers with the pricing signals necessary to encourage them to use the resources efficiently.

To this end, NWL has maintained fixed prices at a significantly lower level than volume prices, except as they apply to Individually Assessed Contract consumers who pay a 100% fixed price.

#### **3.2.1 0 – 50kVA Load Groups**

Consumers in the 15, 30, and 50kVA groupings are typically domestic or small commercial installations which have water-heating or other loads that can be controlled. NWL has developed a number of control options for those consumers that foster economic use of the network assets and enable load to be moved to off-peak periods. In recognition of this, the fixed prices for installations that provide year-round access to controllable load are lower than for installations with no controlled load. In addition controlled installations can utilise two-rate, night/day metering, which enables consumers to benefit from the cheaper night rate prices that apply between 11:00pm and 7:00am.

The total costs associated with each load group are allocated on the portion of the assets that they utilise. The load group share of the assets is determined by comparing the group capacity with the total network capacity and the group-after-diversity maximum demand with the network maximum demand. Costs are allocated 50% on group after diversity maximum demand (ADMD), and 50% on the group capacity.

In addition a DLU option is available in accordance with the DLU Regulations. This option is revenue-neutral for a consumer using 9,000 kWh per annum before and after a non-discretionary discount has been applied.

#### **3.2.2 51 – 750kVA Load Groups**

Installations in the 100 – 750kVA load groups are predominantly commercial, light industrial, or farming, and do not normally have loads that can be controlled externally. Load control is not generally available for these load groups, although limited access to night-rate prices are available for irrigation supplies and for installations with Time-of-Use (TOU) metering. These installations are normally supplied from a dedicated transformer and therefore do not utilise the same range of network assets as small low-voltage connections. Energy use within these load groups is much higher than the <50kVA groups resulting in the costs being predominantly governed by energy use rather than fixed prices. This provides consumers within these load groups with pricing signals that relate directly to consumption.

The total costs associated with each load group are allocated on the portion of the assets that they utilise. The load group share of the assets is determined by comparing the group capacity with the total network capacity and the group ADMD with the network maximum demand. Costs are allocated 50% on group ADMD, and 50% on the group capacity.

### **3.3 Individually Assessed Contracts**

Individually Assessed Contract consumers are assessed on their contribution to network system demand and the contracted capacity they require. The assets required to supply each customer installation are assessed and valued at ODV, and the contribution that the installation makes towards network system demand is determined from TOU metering data. The costs associated with the network assets are then recovered as a fixed price based 50% on demand and 50% on contracted capacity. Consumers in this group can reduce their costs by improving their utilisation of assets and controlling their peak demands.

### **3.4 Volume prices for Standard Contract Consumer Load Groups**

Volume prices for Standard Contract Consumer Load Groups are based on GXP volumes adjusted to account for losses and individual contract customer usage. Day volume prices apply to all units transported over the network between 7:00am and 11:00pm and night volume prices to all units transported over the network between 11:00pm and 7:00am. Night volume prices are lower than day prices to encourage retailers to develop prices that reward consumers for off-peak usage.

### **3.5 Transmission prices for Standard Contract Consumer Load Groups**

The following methodology has been used as the basis for the recovery of transmission prices in a way that is equitable to all groups and reflects Transpower's pricing structure.

Transpower's Connection Charges and NWL Avoided Transmission Costs are fixed asset-based costs and are allocated between load groups based on the group capacity requirements. These costs are recovered through mostly fixed prices.

Transpower's Interconnection Charges are recovered from Standard Contract consumers as a volume (kWh) price plus a small fixed price.

The fixed portions of the prices for Standard Contract consumers are kept at a low level so that consumers with lower consumption levels are not subsidising consumers with higher consumption levels. The volume prices are based on GXP totals adjusted to account for losses and Individually Assessed Contract consumer usage. Day volume prices apply to all units transported over the network between 7:00am and 11:00pm, and night volume prices to all units transported over the network between 11:00pm and 7:00am.

### **3.6 Transmission prices for Individually Assessed Contracts**

Transpower's Connection Charges and NWL Avoided Transmission Costs are recovered by means of a fixed price based on the capacity (kVA) requirements of each consumer.

Transpower's Interconnection Charges are recovered by means of a fixed price based on the average of the 100 highest half-hour demands (kW) recorded by each consumer in the previous 12 months.

### **3.7 Transmission prices Relating to Loss and Constraint Rebates**

Loss and Constraint Rebates are credits rebated by Transpower, resulting from over-recovery of costs and are included in transmission prices.

## 4 LOSSES

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### 4.1 General

Losses represent the percentage of electricity entering the network that is either consumed in the delivery process or lost, and can be categorised as either technical losses or non-technical losses.

Technical losses comprise:

- standing losses arising from zone and distribution transformers; and
- variable losses arising from resistive losses in conductors. Resistive losses are proportional to the square of the current passing through the conductor.

Non-technical losses comprise:

- losses arising from metering faults or errors; and
- losses arising from electricity theft etc.

The energy measured at customers' installations is therefore after losses, and must be multiplied by the overall "loss factor" to determine each retailer's purchase quantities at each GXP.

### 4.2 Low Voltage and High Voltage Connection

The majority of consumers take supply and are metered at 400/230V and the loss factor applied to these sites must account for distribution transformer and low voltage reticulation losses. A small group of customers take supply and are metered at 11,000V and the loss factor applied to these customers does not include distribution transformer and LV reticulation losses.

### 4.3 Loss Factor Allocation

The average loss factor for the network is calculated from data supplied by the National Reconciliation Manager. This information is compared with the GXP data to determine the long run overall loss factor.

## 5 DISTRIBUTED GENERATION (DG)

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NWL is always keen to work with consumers and to advise them of distribution alternatives such as DG from wind or solar. Any consumer interested in DG is encouraged to get in touch to discuss the opportunity further.

NWL offers connection to DG by the standard terms defined by the EA. The standard terms are easy to understand and are consistent with the majority of distributors across the country. These terms can be found on the DG page on NWL's website: [www.networkwaitaki.co.nz](http://www.networkwaitaki.co.nz).

NWL incentivises consumer investment in DG by way of its high volume to fixed price apportionment – consumers who invest in DG can decrease their usage and thus the variable cost of their line charges. However, as part of a proposed review of distribution prices, this incentive may be reduced.

DG consumers are not charged for injecting into the grid at this time. In future there may be a need to charge for this, but it will be set at a level that does not discourage DG and relevant stakeholders will be consulted at the time.

For a sufficiently large distributed generation consumers located in an area of strategic importance where a contribution to peak reduction could be deemed useful, NWL may consider payments to the DG consumer for the amount it reduces NWL's Regional Co-incident Peak Demand (RCPD). Payments would likely be a proportion of the current Transpower (\$/kW) Interconnection Rate. NWL encourages any potential large scale DG consumer to get in touch to discuss this opportunity.

NWL may consider similar arrangements to those noted above for large scale DG for demand reduction or other innovative technologies that might help reduce peak demand. Again NWL encourages any potential consumer offering services of this type to get in contact to discuss the opportunity further.

## 6 APPENDIX 1 – DELIVERY PRICE SCHEDULE

### Delivery Price Schedule Network Waitaki Limited

Pursuant to the Electricity Distribution Information

Disclosure Determination 2012

Effective from **1 April 2016**

The prices in this schedule are used to charge electricity retailers for the delivery of electricity in the Waitaki region serviced by Network Waitaki. Electricity retailers determine how to allocate this cost together with energy, metering and other retail costs when setting the retail prices that appear in an end consumer's power account.

Price schedule effective from 1 April 2016			DISTRIBUTION PRICE			TRANSMISSION PRICE			DELIVERY PRICE			NON-DISCRETIONARY
FIXED PRICE CODE	DESCRIPTION	No. of Consumers as at 1/12/2015	Fixed	Volume		Fixed	Volume		Fixed	Volume		DISCOUNT \$/connection per day
			\$/connection per day	Day 7am - 11pm c/kWh	Night 11pm - 7am c/kWh	\$/connection per day	Day 7am - 11pm c/kWh	Night 11pm - 7am c/kWh	\$/connection per day	Day 7am - 11pm c/kWh	Night 11pm - 7am c/kWh	
DLU15U	Domestic Low User 15U	530	0.0952	7.493	0.772	0.0548	3.003	0.309	0.1500	10.496	1.081	0.15825
DLU15C	Domestic Low User 15C	3638	0.0952	7.493	0.772	0.0548	3.003	0.309	0.1500	10.496	1.081	0.16551
15U	0 - 15kVA	1489	0.3047	6.597	0.680	0.2161	2.868	0.295	0.5208	9.465	0.975	0.15825
15C	0 - 15kVA Controlled	4943	0.2680	6.597	0.680	0.0834	2.868	0.295	0.3514	9.465	0.975	0.16551
30U	16 - 30kVA	457	0.3398	6.597	0.680	0.4054	2.868	0.295	0.7452	9.465	0.975	0.23416
30C	16 - 30kVA Controlled	218	0.3047	6.597	0.680	0.2726	2.868	0.295	0.5773	9.465	0.975	0.24030
50U	31 - 50kVA	618	0.4453	6.597	0.680	0.4613	2.868	0.295	0.9066	9.465	0.975	0.33208
50C	31 - 50kVA Controlled	155	0.4219	6.597	0.680	0.3286	2.868	0.295	0.7505	9.465	0.975	0.33356
100	51 - 100kVA	322	0.5625	6.597	0.680	0.5923	2.868	0.295	1.1548	9.465	0.975	0.44192
200	101 - 200kVA	105	1.0899	6.597	0.680	0.9928	2.868	0.295	2.0827	9.465	0.975	0.92219
300	201 - 300kVA	49	1.4532	6.597	0.680	1.2624	2.868	0.295	2.7156	9.465	0.975	1.22326
500	301 - 500kVA	21	1.9454	6.597	0.680	1.8632	2.868	0.295	3.8086	9.465	0.975	1.70649
750	501 - 750kVA	7	2.8712	6.597	0.680	2.7027	2.868	0.295	5.5739	9.465	0.975	2.50633
IND	Individually Assessed	29										

#### Notes:

1. **All Charges** are GST exclusive. GST is payable in addition to the charges.
2. During the previous year Network Waitaki has experienced **increasing costs** in the operation of its network. These include increases in local body rates, labour and regulatory levies. In order to continue operating a safe and reliable electricity distribution network, the Board of Network Waitaki has deemed it necessary to increase prices to reflect increasing costs. On average the distribution component of Network Waitaki's prices have increased by 1.3%. Transpower has also increased its transmission prices to Network Waitaki and these together with new investments are reflected in an average increase of 4.7% in the transmission component of Network Waitaki's prices. Overall prices have increased by 2.5%.
3. Network Waitaki **allocates each ICP to a load group** as prescribed in its Use of System Agreements.
4. **Eligibility for the "Domestic Low User (DLU)" (or "Residential Low User")** price categories requires that the premises must be the consumer's principal place of residence as defined in the Electricity Industry Act 2010.



5. As a result of an **exemption** issued under Regulation 26 of the Electricity Regulations 2004 (Low Fixed Charge Tariff Option for Domestic Consumers) DLU30U, DLU30C, DLU50U and DLU50C have been discontinued. Details of the exemption are available on [www.networkwaitaki.co.nz](http://www.networkwaitaki.co.nz).
6. **Volume prices** are based on volumes metered at the Grid Exit Points supplying the network. Volume based prices include a 1.06 reduction for network losses. Volume prices for DLU load groups are based on usage advised by electricity retailers.
7. **Distribution and Transmission prices** are charged in respect of each site and electricity retailers are invoiced monthly in arrears. Fixed prices accrue on a daily basis at the rate of 1/365<sup>th</sup> of the annual amount due.
8. Network Waitaki's **annual discount** to consumers is comprised of a non-discretionary and a discretionary component. The non-discretionary component is a guaranteed amount that will be discounted to consumers in the various load groups listed and will be payable in **March or April 2017**. The balance of the targeted discount shown in the Statement of Corporate Intent is the discretionary component, and the magnitude of this component will be determined by trading conditions during the year.
9. Discounts will be payable in March or April 2017 based on the **number of days that the installation has been connected** within a specific load group during the preceding 12 months.
10. **Full terms and conditions** in the Use of System Agreement take precedence over the above summary. A Standard Use of System Agreement is available at [www.networkwaitaki.co.nz](http://www.networkwaitaki.co.nz). This schedule is provided pursuant to Clause 2.4.18 and 2.4.19 of the Commerce Commission's Electricity Distribution Information Disclosure Determination 2012.

## Effective from 1 April 2015

Price schedule effective from 1 April 2015			DISTRIBUTION PRICE			TRANSMISSION PRICE			DELIVERY PRICE			NON-DISCRETIONARY DISCOUNT
FIXED PRICE CODE	DESCRIPTION	No. of Consumers as at 01/01/2015	Fixed	Volume		Fixed	Volume		Fixed	Volume		\$ /connection per day
			\$ /connection per day	Day 7am - 11pm c/kWh	Night 11pm - 7am c/kWh	\$ /connection per day	Day 7am - 11pm c/kWh	Night 11pm - 7am c/kWh	\$ /connection per day	Day 7am - 11pm c/kWh	Night 11pm - 7am c/kWh	
DLU15U	Domestic Low User 15U	485	0.09495	7.3226	0.7546	0.05464	2.8678	0.2954	0.14959	10.1903	1.0500	0.15781
DLU15C	Domestic Low User 15C	3604	0.09495	7.3226	0.7546	0.05464	2.8678	0.2954	0.14959	10.1903	1.0500	0.16505
DLU30U	Domestic Low User 30U	14	0.09495	7.3226	0.7546	0.05464	2.8678	0.2954	0.14959	10.1903	1.0500	0.23352
DLU30C	Domestic Low User 30C	41	0.09495	7.3226	0.7546	0.05464	2.8678	0.2954	0.14959	10.1903	1.0500	0.23967
DLU50U	Domestic Low User 50U	1	0.09495	7.3226	0.7546	0.05464	2.8678	0.2954	0.14959	10.1903	1.0500	0.33117
DLU50C	Domestic Low User 50C	2	0.09495	7.3226	0.7546	0.05464	2.8678	0.2954	0.14959	10.1903	1.0500	0.33265
15U	0 - 15kVA	1504	0.27055	6.5969	0.6798	0.18822	2.8678	0.2954	0.45877	9.4647	0.9752	0.15781
15C	0 - 15kVA Controlled	4942	0.23801	6.5969	0.6798	0.05582	2.8678	0.2954	0.29383	9.4647	0.9752	0.16505
30U	16 - 30kVA	443	0.30175	6.5969	0.6798	0.21303	2.8678	0.2954	0.51478	9.4647	0.9752	0.23352
30C	16 - 30kVA Controlled	199	0.27055	6.5969	0.6798	0.08063	2.8678	0.2954	0.35117	9.4647	0.9752	0.23967
50U	31 - 50kVA	612	0.39538	6.5969	0.6798	0.26883	2.8678	0.2954	0.66421	9.4647	0.9752	0.33117
50C	31 - 50kVA Controlled	153	0.37459	6.5969	0.6798	0.13642	2.8678	0.2954	0.51101	9.4647	0.9752	0.33265
100	51 - 100kVA	315	0.49945	6.5969	0.6798	0.39943	2.8678	0.2954	0.89888	9.4647	0.9752	0.44071
200	101 - 200kVA	101	0.96770	6.5969	0.6798	0.79883	2.8678	0.2954	1.76653	9.4647	0.9752	0.91967
300	201 - 300kVA	48	1.29025	6.5969	0.6798	1.06768	2.8678	0.2954	2.35792	9.4647	0.9752	1.21992
500	301 - 500kVA	20	1.72727	6.5969	0.6798	1.66680	2.8678	0.2954	3.39407	9.4647	0.9752	1.70183
750	501 - 750kVA	3	2.54929	6.5969	0.6798	2.50402	2.8678	0.2954	5.05331	9.4647	0.9752	2.49948
IND	Individually Assessed	29										

All prices exclude GST

## 7 APPENDIX 2 – COMPLIANCE TO EA PRINCIPLES

As part of the disclosures made under Section 2.4 of the 2012 IDRs, Clause 2.4.3(2) requires that an EDB demonstrate the extent to which its pricing methodology is consistent with Electricity Authority’s March 2010 Pricing Principles (EA Principles and Guidelines). The EA Principles and Guidelines, and NWL’s compliance with them are detailed in the table below.

Pricing Principles	Network Waitaki Limited’s compliance to the EA principles
<b>(a) Prices are to signal the economic costs of service provision, by:</b>	
<p>(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;</p>	<p>For its Standard Contract consumers, NWL placed these consumers in load groups according to an estimate of the actual transformer capacity used by each consumer. Capacity requirements were also taken into account when the prices of IND consumers were set. NWL is of the view that dividing consumers into different groups according to capacity utilisation is reflective of the underlying cost drivers of incrementally supplying each load group and IND consumer.</p> <p>According to this Principle, being subsidy free means that for each consumer group or IND consumer, the revenues from that group or IND consumer should not be below the cost of connecting that consumer group or IND consumer to the distribution network (incremental cost) and this is indeed the case given NWL’s capacity utilisation reflective prices.</p> <p>Further, this principle means that revenues from each consumer group or IND consumer should not exceed the costs of supplying that group or IND consumer as a standalone. NWL is in the process of conducting a cost of supply exercise and will then be in a better position to quantify incremental and standalone costs. Once data from advanced meters is available this will also put NWL in a better position to analyse costs.</p> <p>Thus, with the exception of subsidies provided in compliance with the DLU Regulations, NWL is of the view that its prices are generally free of subsidies.</p>
<p>(ii) having regard, to the extent practicable, to the level of available service capacity; and</p>	<p>By dividing consumers into load groups according to transformer capacity NWL has particular regard for this principle.</p> <p>NWL have day/night volume prices that encourage consumers to shift load to night time where possible. NWL also offer an incentive to consumers that choose controlled load price plans.</p>
<p>(iii) signalling, to the extent practicable, the impact of additional usage on future investment costs.</p>	<p>The volume component of NWL’s prices is generally much higher for most consumers than the fixed component. This sends a signal to consumers that additional usage will impact on the future investment costs of NWL.</p> <p>In addition, for NWL’s volume Day and Night prices, there is a higher price in the congested day period which signals that additional usage will impact on future investment costs.</p> <p>As a further signal, NWL offers discounted prices for consumers who opt for Controlled prices. Both distribution and transmission fixed prices are</p>

Pricing Principles	Network Waitaki Limited's compliance to the EA principles
	<p>lower for controlled prices compared to the equivalent uncontrolled prices to signal the benefits of load control. The transmission fixed component of each controlled price is significantly lower to signal the clear and direct impact that load control has on reducing transmission prices.</p> <p>Load control systems are effective in reducing demand at peak times by deferring non-critical electricity usage. The benefits of controlled load include greater predictability of the magnitude of peak demands, less need to build peak generation plants and potential to defer transmission and distribution capacity upgrades.</p>
<p><b>(b) Where prices 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.</b></p>	
<p>NWL considers this principle matches the economic principle known as Ramsey Pricing, which is a form of price discrimination where if differential prices are appropriate, then the highest prices should be borne by consumers with the most inelastic demand.</p> <p>In practice, however, Ramsey Pricing is only ever used to provide guidance in pricing development as it is complex to accurately observe the price elasticity of different consumers. Further, Ramsey pricing also requires an ability to segment consumers by their respective characteristics, e.g. cinemas can easily differentiate between adults, children, students and senior citizen viewing audience by the time of day and day of the week of movie screenings, with prices set accordingly to reflect the differences in willingness to pay between these different groups. However, it is much more difficult for an EDB to differentiate between consumer groups, and particularly so for an EDB like NWL which uses interposed arrangements with retailers.</p> <p>With the exception of DLU customers, NWL does not differentiate between consumers on Standard Contracts – the cost to do so would be prohibitively expensive. NWL contends, however, that by weighting its prices towards volume prices, it is to some extent discriminating between differences in end consumers' willingness to pay when it is unknown what elasticity each consumer group has.</p> <p>For Individually Assessed Contract consumers, however, where the transaction costs of developing non-standard arrangements are small in relation to the value of the network service, customers' prices are calculated as an annually recalculated fixed price based 50% on contracted capacity and 50% on the contribution the customer's installation makes to system demand. The contribution that an installation makes to system demand is less subject to demand response than other measures, and is thus reflective of this principle.</p> <p>NWL is of the view that once data from advanced meters is available it would provide an opportunity to obtain a more accurate view of the price sensitivity of consumer classes.</p>	
<p><b>(c) Provided that prices satisfy (a) above, prices should be responsive to the requirements and circumstances of stakeholders in order to:</b></p>	
<p>(i) discourage uneconomic bypass</p>	<p>This principle considers that it is not economically efficient to replicate sunk assets and therefore requires that prices should not be at a level so high that it becomes economic for a large consumer to obtain alternative network supply.</p> <p>For Standard Contract consumers NWL follows this principle by ensuring that at a load group level, prices faced by consumers reflect the true</p>

Pricing Principles	Network Waitaki Limited's compliance to the EA principles
	<p>economic cost of their service provision. Each load group utilises some or all of NWL's network assets to a greater or lesser degree, and the cost recovery from each load group is based on its utilisation of these assets. Allocation of the assets utilised by each group is based on the capacity (kVA) requirements of each load group, and the ADMD (kW) that they place on the network.</p> <p>Further, in the past for Individually Assessed Contract consumers, NWL discouraged uneconomic bypass by analysing on a case-by-case basis the specific needs of the consumer and tailoring its pricing to reflect the cost to supply the unique needs of the consumer in question.</p> <p>It should be noted that NWL has 29 customers on Individually Assessed Contracts. This is high compared to most networks. For historic reasons some consumers are on IND contracts when other very similar consumers are on standard contracts. NWL will revisit its Individually Assessed Contract methodology in due course with the aim of moving the majority of its Individually Assessed Contract customers to standard contract load groups.</p>
<p>(ii) allow for negotiation to better reflect the economic value of services and enable stakeholders to make price/quality trade-offs or non-standard arrangement for services; and</p>	<p>NWL is 100% owned by the Waitaki Power Trust (Trust). Trustees of the Trust represent the interests of consumers and engage with NWL to ensure that NWL makes appropriate price/quality trade-offs.</p> <p>In addition, for IND consumers, through a process of one-to-one consultation, NWL has in the past negotiated a service tailored to the requirements of the individual consumer, making a price-quality trade-off appropriate for that consumer. As noted previously, NWL is not accepting new IND consumers at this time. The main reason for this is that most consumers up to 750 kVA will be adequately catered for in one of the standard load group categories. IND contracts should be available only for very large consumers that do not fit into any of the standard load groups with special and unique requirements.</p>
<p>(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</p>	<p>Refer to paragraph 5 of the methodology for a discussion on this.</p>
<p><b>(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.</b></p>	
<p>NWL prices are stable and provide certainty to stakeholders. Changes to prices have been such that stakeholders have not experienced major impacts.</p> <p>In reviewing its prices NWL will do so with due regard to the impact on and expectations of stakeholders of any price changes.</p> <p>NWL believes that its prices and price structures are simplistic and understandable. There is always room for</p>	

Pricing Principles	Network Waitaki Limited's compliance to the EA principles
	<p>improvement however and NWL will embark on a review of its prices.</p> <p>Further, through its ownership by the Waitaki Power Trust, and the regular engagement with Trustees of the Trust (who represent the interests of consumers), NWL ensures that its prices are transparent to the Trust and have full regard to the impact they have on consumers.</p> <p>When NWL changes the structure of its prices, it consults with retailers on its network and takes on-board any feedback from them on the proposed new price structures.</p> <p>As a 100% Consumer Trust owned company, NWL is exempt from following the Default Pricing-Quality Path (DPP) that most EDBs are obliged to follow, however, to the extent it is practicable in order to ensure price stability, NWL follows the DPP when it reviews its prices each year, and keeps price increases net of Recoverable and Pass-Through Costs at a rate limited to CPI + X.</p> <p>When it decides on what the X should be, the Board is always mindful of the extent to how price increases will impact on consumers and balances this against the requirements inherent in providing a reliable and secure electricity supply and the need for future investment in asset replacement and network development.</p>
	<p><b>(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.</b></p>
	<p>NWL's prices do not favour one retailer over another. NWL's pricing methodology and applicable prices are identical across all retailers, with no discrimination in regards to available price plan options, applicable prices, calculation methodology, or discounts. NWL's prices are therefore economically equivalent across retailers.</p> <p>Further, through its engagement with Trustees of the Waitaki Power Trust and its consultation with retailers from time-to-time, NWL gives regard to the impact of transaction costs on consumers and other stakeholders</p>

## 8 APPENDIX 3 – CHECKLIST OF COMPLIANCE TO 2012 INFORMATION DISCLOSURE REQUIREMENTS

The table below contains a check list that summarises compliance to all the pricing and related information requirements as per section 2.4. of the Information Disclosure Guidelines.

Clause in Determination	Reference in Pricing Methodology
<b>2.4.1 Every EDB must publicly disclose, before the start of each disclosure year, a pricing methodology which-</b>	
(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;	Appendix 1 for changes to prices. Table 1, paragraph 2.3 for changes to 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);	Paragraphs 3.3 and 3.6. Paragraph 5 for a discussion on Distributed Generation.
(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.	Paragraph 2.1.7 for an explanation of NWL's Consumer Engagement.
<b>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.</b>	<b>There have been no material changes to the pricing methodology since publication of the last methodology in 2014.</b>
<b>2.4.3 Every disclosure under clause 2.4.1 above must-</b>	
(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;	Paragraph 3 explain how prices were set for each consumer group, for both standard and non-standard contracts. Paragraphs 2.3 and 2.4 provides more detail on allocation of revenue requirement.
(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	Appendix 2 details the consistency of NWL's pricing methodology with the

Clause in Determination	Reference in Pricing Methodology
pricing principles;	Electricity Authority Pricing Principles and Information Disclosure Guidelines. NWL considers its pricing methodology to be fully consistent with these.
(3) State the target revenue expected to be collected for the disclosure year to which the pricing methodology applies;	Table 1 in paragraph 2.3 shows the target revenue to be collected in the disclosure year 2016/17.
(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;	Table 1 in paragraph 2.3 shows the target revenue to be collected in the disclosure year 2016/17.
(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;	Paragraph 3 details consumer groups and the rationale for grouping consumers this way and the method and criteria that NWL has used to allocate consumers to each group.
(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;	Note 1 of the table in Appendix 1 details this.
(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;	Paragraph 2.3 and 2.4
(8) State the proportion of target revenue (if applicable) that is collected through each price component as publicly disclosed under clause 2.4.18.	This is not applicable as NWL does not have different revenue targets for price components. NWL's revenue is only targeted across consumer groups and not to a lower level.
2.4.4 Every disclosure under clause 2.4.1 above must, if the EDB has a pricing strategy-	This section is not applicable. It is foreseen that a pricing strategy will be devised in due course once a cost of supply exercise has been completed.
(1) Explain the pricing strategy for the next 5 disclosure years (or as close to 5 years as the pricing strategy allows), including the	Not applicable as above.

Clause in Determination	Reference in Pricing Methodology
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;	Not applicable as above.
(3) If the pricing strategy has changed from the preceding disclosure year, identify the changes and explain the reasons for the changes.	Not applicable as above.
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;	There are 29 consumers on non-standard contracts. The value of target revenue from non-standard contracts is depicted in Table 2, paragraph 2.4.
(b) how the EDB determines whether to use a non-standard contract, including any criteria used;	NWL has a number of historic non-standard contracts. However, it now has a policy that it will not offer non-standard contracts to any new customers.
(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;	The methodology for determining prices for non-standard contracts is detailed in paragraphs 3.3 and 3.6
(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-	This is not applicable as NWL does not treat interruptions to non-standard contract consumers any differently to those on standard contracts.
(a) the extent of the differences in the relevant terms between standard contracts and non-standard contracts;	Not applicable as above.
(b) any implications of this approach for determining prices for consumers subject to non-standard contracts;	Not applicable as above.
(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	Paragraph 5.



Clause in Determination	Reference in Pricing Methodology
the-	
(a) prices; and	Paragraph 5.
(b) value, structure and rationale for any payments to the owner of the distributed generation	Paragraph 5.