PRICING METHODOLOGY

Pursuant to the Electricity Distribution Information Disclosure Determination 2012, clause 2.4.1

and

Electricity Authority Distribution Pricing Principles and Information Disclosure Guidelines

For the Period: 1 April 2020 – 31 March 2021

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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, Christopher J. Dennison and Anthony J. 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.

Christopher J. Dennison

Date: 30 March 2020

Anthony J. Wood

Date: 30 March 2020

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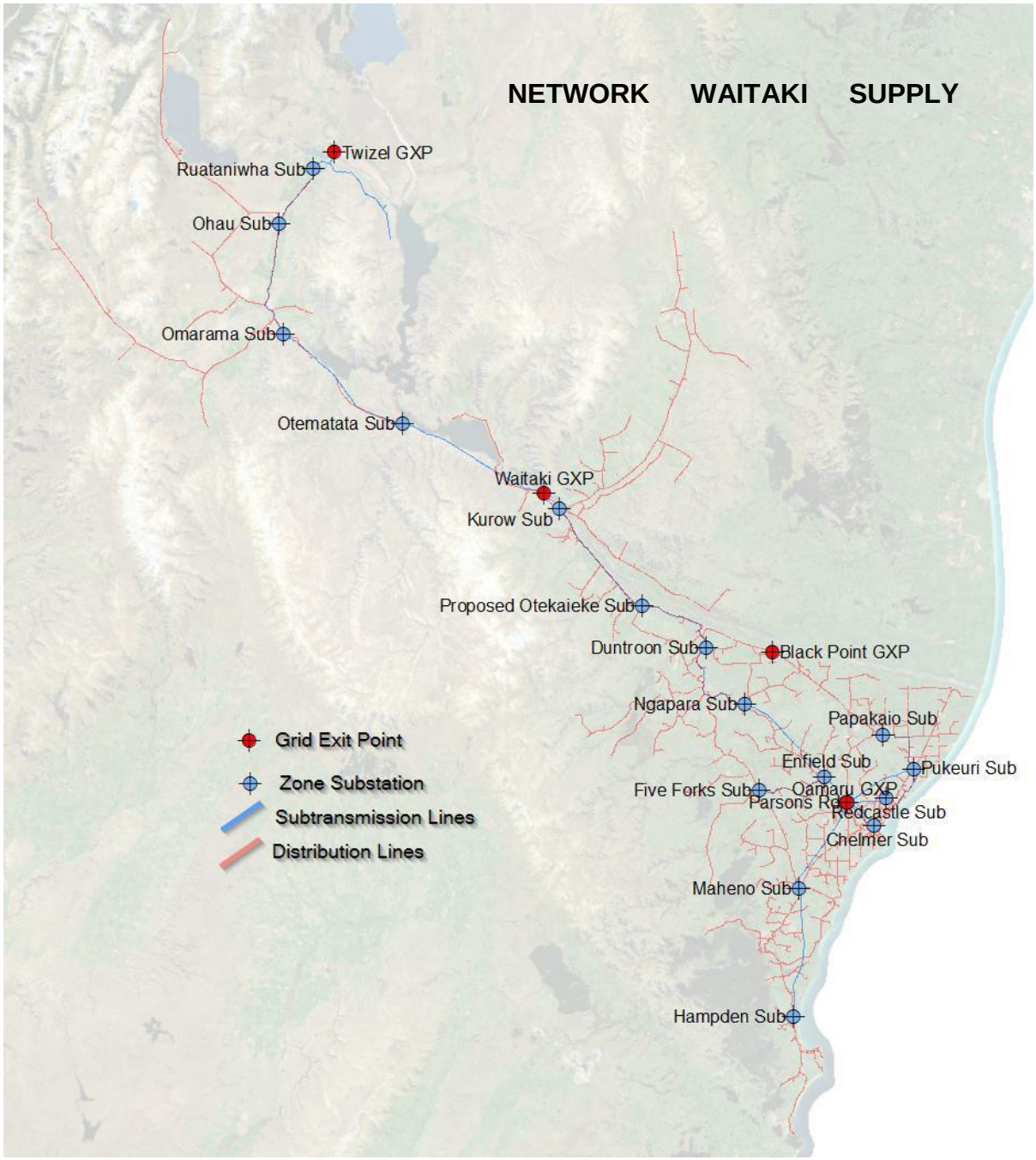
1 INTRODUCTION

This document outlines Network Waitaki's pricing methodology for the period 1 April 2020 to 31 March 2021.

1.1 Overview of Network Waitaki

Network Waitaki owns, manages and operates the electricity distribution network in a supply area covering North Otago and parts of South Canterbury, and is 100% owned by the Waitaki Power Trust. Due to its ownership structure the company is an exempt Electricity Distribution Business (EDB) under Part 4 of the Commerce Act and therefore is not subject to price-quality regulation, however is subject to Information Disclosure requirements.



The network has a footprint of approximately 8,400 square kilometres. The number of Installation Connection Points (ICPs) connected to the network is approximately 13,000, the maximum coincident system demand is approximately 65 MW and the annual delivered energy after losses is approximately 250 GWh.

Within our network area, the distribution network includes 18 zone substations, approximately 1,900 km of lines and cables, and 2,900 distribution transformers of which about 400 have a capacity in excess of 100 kVA.

Network Waitaki's distribution assets are dispersed over a large area and the company services a mix of towns, rural land and remote farmland. Irrigation energy volume growth over the last ten years averaged at about 1.7% p.a. while the number of irrigation ICPs have increased at about 4.5% p.a. from 450 in 2009 to about 670 now. Total energy volume growth for this period was also 1.7%, indicating that non-irrigation sales had also been growing at the same rate.

1.2 Legal requirements and compliance

Under section 2.4 (pricing and related information) of the *Electricity Distribution Information Disclosure Determination 2012 (consolidated in 2015)*, Network Waitaki must publicly disclose, before the start of each disclosure year, a pricing methodology which:

- Describes the methodology used to calculate prices payable or to be payable;
- Describes any changes in prices and target revenues;
- Explains the approach taken with respect to pricing in non-standard contracts and distributed generation; and
- Explains whether, and if so how, we have 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.

Network Waitaki's pricing methodology is consistent with the Electricity Authority's March 2010 Pricing Principles (EA Principles and Guidelines) as amended[1] outlined in Appendix 2.

Network Waitaki complies with the *Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004* (LFC Regulations). Residential Low User (RL) consumers at the 9,000 unit average domestic household consumption threshold level for the Lower South Island will pay no more than standard price plan consumers.

A detailed summary of how Network Waitaki complies with the Information Disclosure Determination 2012 and which sections of this pricing methodology comply with each requirement can be found in Appendix 3.

1.3 Pricing strategy

Network Waitaki is committed to cost-reflective, service-based pricing to improve the use of its electricity network and to support efficient use of the network.

[1] Electricity Authority (4 June 2019). More efficient distribution network pricing – principles and practice.

The aim of Network Waitaki's pricing strategy over the next five years is to:

- Reflect the cost of service of the company more accurately through continuous re-balancing of the capacity-based fixed and volume components of electricity distribution prices (where able to do so and not constrained by LFC regulations);
- Ensure revenue reliability through implementation of cost-reflective price structures;
- Limit negative impacts of price rebalancing on consumers while remaining revenue neutral as possible;
- Minimise the impact of price rebalancing by communicating with and advising affected consumers of mitigating actions;
- Put in place a comprehensive communication plan and process relating to changes in pricing;
- Continuously monitor wider regulatory developments to ensure the direction of price structure development is aligned with industry and regulatory developments.

Annexure 4 contains the updated "living" roadmap and plan that will guide Network Waitaki in its journey towards cost-reflective pricing. Updates to the roadmap and extension of the timeline to 2024 are due to consideration of consumer impacts and expected changes on the regulatory front, such as eventual phasing-out of LFC regulations and potential changes to the Transmission Pricing Methodology.

Roadmap progress

In line with the roadmap, Network Waitaki has been re-balancing fixed capacity-based and volume prices since 2017 to better reflect the cost of service, as the risk of current pricing structures relating to revenue uncertainty, volume risk (weather and emerging technologies) and social inequity must be addressed. The main current causers of revenue risk (not considering future emerging technology developments) are the 400 irrigation connections contributing 80% to revenue volatility due to seasonal summer weather usage variations, and the balance of mass-market connections (12,600) contributing 20% due to winter seasonal load variations.

In rebalancing prices, Network Waitaki continuously analyses the impact of price adjustments on consumers and aims to minimise the impact where possible. In cases where the impact of rebalancing was significant, we communicated with affected retailers and consumers to inform them of the process and the impact on them and of the choices they have to lessen the impact.

Various price structure approaches have been considered. In this regard, Network Waitaki has developed a pricing model to consider the application of capacity, demand as well as time-of-use charges. Demand and capacity-based charges are clearly more aligned with the cost drivers of a distribution business. However, for demand prices to be efficient and effective access to real-time half hourly data is required which Network Waitaki does not have access to. Network Waitaki is currently leaning towards installed capacity-based pricing plans which is similar to its current pricing structure, while maintaining a small day/night volume price component. Furthermore, a preliminary review of its cost of supply methodology was done and is discussed under clause 2.4.

Network Waitaki has not rolled out an extensive communication strategy as there has been no significant changes to its price structure, except for the rebalancing of

capacity-based fixed prices and volume prices to move to a mostly installed capacity-based pricing approach. Network Waitaki will closely participate in, communicate and work with other EDB, the Electricity Networks Association and retailers to ensure it timely adapt to regulatory developments such as phasing-out of the LFC regulations and any potential changes to the Transmission Pricing Methodology.

Ultimately, there will be a trade-off between the ideal economic efficient pricing structure and what is practical and acceptable from consumers' perspectives. Network Waitaki is of the view that it is crucial to work closely with other EDBs, the ENA and retailers to properly evaluate these options to facilitate a smooth implementation and that it is also vitally important to understand consumers' perspectives.

1.4 Consumer survey

In February 2019, Network Waitaki conducted a consumer survey to understand consumers' experiences on a range of issues, including overall satisfaction with Network Waitaki's service on outages, price and reliability balance, awareness of company ownership, familiarity with smart meters and emerging technologies and interest in price structure consultation. The survey was completed in two parts, as follows:

- Face-to-face interviews with sixteen of our large consumers; and
- Telephone interviews with a sample of 400 residential and commercial users.

In terms of consumer satisfaction regarding price and quality, consumers were asked whether they would prefer to either?

1) Pay more, and keep outages to a minimum?

2) Pay the same, with outages kept about the same?

3) Pay less, with slightly more outages?

The majority of consumers prefer to 'pay the same with outages kept about the same', i.e. 78% of the sample interviewed by telephone and 83% of consumers interviewed face-to-face.

1.5 Changes to Network Waitaki's pricing methodology

There have been no material changes to Network Waitaki's pricing methodology, approach and rationale since the last methodology was published in March 2019. Network Waitaki is continuing on a path of rebalancing fixed capacity-based and volume prices. Over the next few years, pricing will progressively become more capacity based with volume becoming less of an influence to align the pricing of distribution services with the cost of the service provided to ensure consumers know the true cost of network connection when considering alternative sources of energy. Furthermore, Network Waitaki has reviewed its cost of supply model that will guide price structure alignment over time.

No change has been made to the pricing methodology that will materially affect the targeted revenue received by Network Waitaki. However, in rebalancing fixed capacity-based prices and volume-based prices, some consumers will be affected,

though; consumers with low consumption relative to the capacity they contracted for (low load factor consumers) will typically pay more than now, and consumers with higher load factors and contracted for an optimally sized price plan might pay less than now. The aim is to ensure that every consumer connected to the Network Waitaki's network pays a charge strongly aligned with the cost to supply that size of connection. The exception to this approach is where we have to comply with Low Fixed Charge regulations which means we cannot adjust the fixed portion of approximately 5,186 consumers which makes it harder to transition towards more cost reflective pricing for this group of consumers.

2 PRICING METHODOLOGY

The pricing methodology is aimed at setting prices that, as far as practicable, achieve Network Waitaki's identified pricing objectives, recover the full cost to operate the network efficiently and over time reflect the cost of serving different consumer load groups better to encourage efficient use of the network.

2.1 Pricing objectives

This section outlines Network Waitaki's pricing objectives of revenue adequacy and reliability, efficiency, fairness, simplicity and transparency on future price direction and the ability to provide an annual discount to consumers.

2.1.1 Revenue reliability

Network Waitaki must recover sufficient revenue to:

- meet the costs associated with the use of the Transpower national grid, the cost of transmission alternatives, and other pass through costs;
- meet the costs associated with providing a safe, reliable and efficient network to meet customer service levels, and fulfil its contractual obligations for the delivery of energy over its distribution network;
- comply with statutory requirements on health and safety, environmental protection, and quality of supply;
- provide for new network investment; and
- provide a rate of return on assets that is acceptable to its owners.

To meet the revenue requirement, Network Waitaki uses the following principles in setting prices:

- Prices should be simple to understand and administer and must comply with regulations;
- Maintain the stability of historic pricing regimes in order to lessen price shocks to consumers;
- Prices should not differentiate between urban and rural consumers;

2.1.2 Discount to consumers

Network Waitaki 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. Network Waitaki's

discount to consumers consists of a fixed component and a variable component. The discount is announced in March of every year and the discount allocation methodology is available on Network Waitaki's website.

2.1.3 Efficiency

For Standard Contracts this applies as follows:

From an economic efficiency perspective:

- A rebalancing of capacity-based fixed prices and volume prices to reflect the cost structure of the business;
- High day and low night volume prices that encourage off-peak usage;

From a technical and operational efficiency perspective:

- High day and low night volume prices that encourage off-peak usage;
- Monitoring of power factors;
- Maintaining loss factors;
- Load control to manage peak system demand within Transpower's supply constraints; and
- Emergency load shedding schemes to cope with transmission and generation constraints.

From an administrative efficiency perspective:

Network Waitaki applies a 'GXP billing' approach where volume charges are based on electricity volumes measured at the three injection points (Transpower grid exit points) into the Network Waitaki network for each retailer in aggregate rather than per ICP. Chargeable quantities attributed to each retailer are determined by the wholesale electricity market reconciliation process.

For Individually assessed non-standard contract (IND) efficiency is promoted as follows:

- Efficient investment in the network by large consumers through passing through the cost of different size connections using capacity and demand prices.
- 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 Network Waitaki is continuously striving to set fair and reasonable prices for each consumer load group. Fairness is a contentious subject and consumers might disagree about what is fair and what is not. Having prices with a dominant volume base makes achievement of fair prices complex.

Network prices will continuously become fairer as the cost of supply is increasingly reflected in it over time

Individually assessed prices reflect consumers' use of network assets together with the associated transmission costs.

2.1.5 Simplicity

Network Waitaki has a simplistic, "easy to understand" two-part pricing structure with a fixed component and a day/night volume component applicable to each consumer load group. Except for the RL consumers, all consumer load groups have the same day/night volume prices. Appendix 1 contains the delivery price schedule for Network Waitaki.

2.1.6 Transparency

Network Waitaki follows a philosophy of setting prices such that they increasingly reflect costs and allow consumers to have choices and the ability to respond to price signals. This philosophy will be continued and is part of Network Waitaki's future pricing directions, i.e. to reflect the fixed cost nature of the company more accurately through continuous re-balancing of the capacity-based fixed and volume components of electricity distribution prices (where able to do so and not constrained by LFC regulations).

2.1.7 Innovation

Network Waitaki's prices support innovation through retailers making decisions as part of a competitive market on how they present Network Waitaki's pricing structures to consumers. Non-standard customers similarly can decide how to respond to price structures especially going forward as prices become more capacity-based with less variation, promoting better price stability for consumers.

2.2 Cost structure

Network Waitaki's main cost components are outlined below and consist of operation and maintenance cost, depreciation, return on investment, administration cost and pass-through cost.

2.2.1 Operation and Maintenance

- Maintenance costs are based on the programmes and expenditure levels outlined in the 10-year Asset Management Plan (AMP).
- Operational costs include all other direct and indirect network expenses excluding administration costs.

2.2.2 Depreciation

Depreciation on network assets is based on the standard life for each asset category.

2.2.3 Return on Investment

Return on Investment provides for a return to the business and the shareholder which is used to fund growth and development, fund renewals in excess of depreciation and provide a return to the shareholder or allow for a discount to consumers.

2.2.4 Administration

A provision for a share of costs associated with the administration of the business, and the full cost of support services related to the management and operation of the network.

2.2.5 Pass-Through Cost

Pass-through cost consists of transmission prices charged by Transpower, avoided transmission cost and new investment contracts as well as local authority rates, Electricity Authority levy, Commerce Commission levy and Utilities Disputes levy.

Transmission prices charged by Transpower consists of the following price components:

- Interconnection Charge

This charge is based on the average of the 100 highest half-hour regional coincident peak demands. The prices for the 2020-2021 financial year are based on the demands recorded between 1 May 2018 and 31 October 2019. All Network Waitaki 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 based on 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 Network Waitaki 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.

New Investment Contracts relate to improvements to the Grid undertaken by Transpower to meet Network Waitaki's supply requirements.

2.3 Target Revenue

For the period 1 April 2020 to 31 March 2021, Network Waitaki will increase the fixed distribution prices of standard and non-standard customers by 7.4% (CPI + 5.8%), and distribution volume prices of Low Fixed Charge (LFC) customers by the same amount. No adjustment will be made to distribution volume prices and transmission prices of standard and non-standard customers. This is in line with the aim of rebalancing fixed/volume-based prices to move to more cost-reflective prices and becoming less exposed to revenue variations due to changing weather conditions. The overall impact of the price adjustment is a weighted average increase of 1.6% in network prices.

The target revenue required to cover the costs and return on investment of Network Waitaki's business activities for 2020-2021 amounts to $19.6 million and is shown in Table 1 below.

Target revenue	2020-2021
Operation and Maintenance	$4,420,507
Depreciation	$3,612,837
Administration	$2,303,415
Return on Regulatory Assets	$3,773,725
Transmission	$5,343,475
Pass-through	$179,340
Total Revenue Requirement	**$19,633,299**

Table 1: Annual Revenue Requirement

2.4 Cost Allocation Methodology

Historically, Network Waitaki used a cost allocation methodology where 50% of cost was allocated based on contracted capacity and the other 50% based on After Diversity Maximum Demand (ADMD). A review of this cost allocation methodology resulted in a slight change to the approach as less than 100 out of more than 13,000 ICPs have half hourly meters which means that the majority of ADMD values are based on estimations. Furthermore, the use of a lagging ADMD indicator to alter prices can lead to price shocks as consumers cannot be expected to consciously react to signals that only affect prices a year later.

Network Waitaki reviewed the cost allocation model during the previous (2019-2020) pricing year. As Network Waitaki does not have readily available real-time information of demand of all consumers on its network, nor the actual maximum demand of most consumers, cost is allocated based on the available long-term cost driver, namely connection size (measured in kVA) as a proxy for the geographical load density. This load density refers to the total load in kVA per square km of supply area, but can also be measured as the kVA load per km of line, in order to simplify the measure. This approach is based on the logic that a consumer requires a certain size capacity which they contract for, measured in kVA, which also relates to the maximum demand expected to occur at the site based on the historical ratio between maximum demand and total kVA contracted for.

The cost allocator used is described in the table below:

Allocator	Description	Cost categories and rationale
Assets	Optimised replacement cost[2] (ORC) of all assets are allocated on an aggregate basis to consumer load groups based on	The ORC of assets is indicative of capital employed and drives most of Network Waitaki's cost. If depreciated asset values are used maintenance cost will be under represented, especially for older assets partly depreciated but more in need of maintenance than newer assets.

[2] ODV handbook issued by the Commerce Commission in 2004

	each group's respective usage of the assets.	Furthermore, the rationale of using assets as the main cost allocator is to ensure a simple and easy to understand approach, while ensuring it is based on engineering and costing principles.

Table 2: Cost allocator

2.4.1 Asset cost allocation

The allocation of expenditure relating to network assets is assumed to occur in proportion to the ORC of assets employed in the network. For example, sub-transmission lines are more expensive to build per km of line than distribution lines due to higher voltage insulation and heavier poles and conductors. Maintenance of these assets will thus require more expensive replacement spares and also more time to plan and execute than for distribution lines, driving the maintenance cost to be aligned with the replacement value of the assets.

Network component	Load groups included in allocation	Allocator
Sub-transmission lines and cables	All load groups	Sub-transmission line sections in the supply path of each ICP, allocated and aggregated into the applicable consumer load groups, valued at ORC, provide a measure of the relative cost to supply each kVA of consumer demand per load group from this specific network component.
Distribution lines and cables	All load groups	Distribution line sections in the supply path of each ICP, allocated and aggregated into the applicable consumer load groups, valued at ORC, provide a measure of the relative cost to supply each kVA of consumer demand per load group from this specific network component.
Zone substation equipment (including all assets not classified as lines and cables)	All load groups	The contracted capacity in kVA of each ICP is used to allocate the ORC of these network components to the cost of supply of each ICP and load groups.

Network component	Load groups included in allocation	Allocator
All non-line Distribution assets	All load groups	The contracted capacity in kVA of each ICP is used to allocate the ORC of these network components to the cost of supply of each ICP and load groups.

Table 3: Asset cost allocation

2.4.2 Allocation to consumer load groups

The annual cost of supply of each load group is obtained through scaling the target revenue in proportion to the aggregated asset cost allocation values per load group

Table 4 illustrates the current share of each consumer load group in terms of the % of ICPs to total ICPs, % kWh of energy delivered to total energy delivered, % kVA contracted capacity to total capacity, % current revenue recovered in relation to network revenue. Column 7 illustrates the cost to supply of each load group based on the asset allocation results.

1	2	3	4	5	6	7
Load Group	**Capacity bands (kVA)**	**Number of connections (ICP)**	**Energy delivered (kWh)**	**Contracted Capacity (kVA)**	**Revenue targeted**	**Cost to Supply (asset allocation)**
RLC/RLU	15	38.7%	9.8%	14.7%	12.8%	29.5%
15C/15U	15	45.2%	20.7%	25.8%	26.1%	36.5%
30C/30U	30	5.3%	2.9%	6.0%	4.3%	5.4%
50C/50U	50	6.1%	9.3%	11.6%	11.0%	8.1%
100	100	2.7%	12.0%	10.1%	12.1%	5.5%
200	200	1.0%	7.0%	7.6%	7.4%	3.5%
300	300	0.4%	3.9%	4.9%	4.2%	2.2%
500	500	0.2%	4.7%	4.3%	4.5%	1.8%
750	750	0.1%	1.8%	3.0%	1.8%	1.2%
IND	IND	0.2%	27.9%	11.8%	15.9%	5.0%

Table 4: Consumer load groups share of ICPs, kWh, kVA, revenue and cost to supply

Column 7 in table 4 provides the initial modelled target revenue levels for each load group based on the cost of supply model, but this is not the target revenue that will be obtained from 2020-2021 prices. Column 6 in table 4 illustrates the target revenue from each consumer load group for 2020-2021. As a result of the LFC Regulations an adjustment has to be made to consumer load groups to comply with the regulations,

showing less revenue than cost. Network Waitaki has approximately 5,150 connections that fall under the LFC Regulations.

Furthermore, as long as volume-based revenue is a substantial portion of total revenue, the revenue from consumer load groups would continue to differ from the cost of supply expectation.

2.5 Allocation of Target Revenue Components to consumer load groups

Table 5 illustrates the reconciliation of Network Waitaki's target revenue to small, medium, large and IND consumers.

Target revenue for 2020-2021 is apportioned over the standard consumer load groups based on the revenue shares reported for these groups in Network Waitaki's Information Disclosure to the Commerce Commission for the year ended 31 March 2019.

Allocation of target revenue for 2020-2021		
	Distribution	**Pass-through**
Small Consumers: RLU, RLC, 15U, 15C	$5,526,688	$1,862,029
Medium Consumers: 30U, 30C, 50U, 50C	$2,168,830	$834,948
Large Consumers: 100, 200, 300, 500, 750	$4,633,269	$1,484,195
IND: Individually assessed non-standard	$1,772,037	$1,351,302
Total Revenue Requirement	$14,100,824	$5,532,475

Table 5: Allocation of target revenue to consumer load groups

Network Waitaki does not apply distance-based (locational) prices to consumer load groups, i.e. different prices for urban and rural consumers. Any cost variations as a result of the location of ICPs are taken into account in the cost of supply calculations through the aggregation of the distance signal for all ICPs in each load group. Approximately 90% of Network Waitaki consumers are supplied through the Oamaru GXP showing that the market is relatively concentrated. At this point the complexity and possible ambiguity of applying distance-based prices to a few remote rural consumers do not justify distance-based pricing: The customer reaction to such pricing signals would most probably not have a significant impact on economic efficiency in the supply area.

Urban consumers supplied from Chelmer Street and Redcastle substations enjoy a higher level of security due to the N-1 status of these substations. Also, the higher level of interconnectivity in the urban areas provides alternative supply routes in the event of a fault or planned outage. There is a trade-off between distance-based cost and security of supply cost.

Further, Network Waitaki 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. Network Waitaki considers that this in part justifies having no price differentiation based on location.

3 CONSUMER LOAD GROUPS AND PRICING STRUCTURES

Consumer load groups fall into two main categories, namely:

- Standard consumer load groups where network costs are recovered by means of a fixed annual price (based on connection capacity) 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. Most Network Waitaki consumers are on standard contracts which mean that they have a supply contract with a retailer and not with Network Waitaki.

- IND consumers where network costs are recovered by means of a fixed annual price based on the individual consumer's asset usage, capacity requirements, and contribution towards the system peak demand.

3.1 Standard consumer load groups

Consumer 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 residential and non-residential connections except for the RL categories which is available only to low use primary domestic supplies.

Load groups are differentiated based on kVA as it is a measure of service capacity and load density, and is reflective of the costs incurred to serve each group.

The current Network Waitaki Consumer load groups are:

Load Group	Description	Maximum Fuse Rating
RLC	Residential Low User 15C	1x 63A fuse
RLU	Residential Low User 15U	1x 63A fuse
15C	0 - 15kVA controlled	1 x 63A fuse
15U	0 - 15kVA Uncontrolled	1 x 63A fuse
30C	16 - 30kVA Controlled	1 x 100A fuse or 3 x 40A fuses
30U	16 - 30kVA Uncontrolled	1 x 100A fuse or 3 x 40A fuses
50C	31 - 50kVA Controlled	3 x 80A fuses
50U	31 - 50kVA Uncontrolled	3 x 80A fuses
100	51 - 100kVA	3 x 160A fuses
200	101 – 200kVA	3 x 315A fuses
300	201 – 300kVA	3 x 400A fuses

500	301 – 500kVA	NA
750	501 – 750kVA	NA
LC	750kVA +	NA
IND	Individually Assessed	NA

Table 6: Consumer load groups

Street lighting is a specialist load group which utilises dedicated LV assets and is covered by an IND contract.

3.2 Distribution fixed prices: Standard Consumer Load Groups

3.2.1 0 – 50kVA Load Groups

Consumers in the 15, 30, and 50kVA groupings are typically domestic or small commercial installations which may have water-heating or other loads that can be controlled. Network Waitaki has developed 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, day/night metering, which enables consumers to benefit from the cheaper night rate prices that apply between 11:00pm and 7:00am.

In addition, an RL option is available in accordance with the *Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulation 2004*. This option is cost-neutral for a consumer using 9,000 kWh per annum before and after a 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. 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 typically much higher than the groups on connections below 51kVA 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. A rebalancing of fixed capacity-based and volume prices will continue on 1 April 2020 to adequately reflect the fixed cost nature of Network Waitaki's business.

3.2.3 Large Commercial Load Group

This load group requires connections larger than 750kVA. Pricing for this group is similar to the pricing method applied for IND price plans. The costs associated with the network assets are recovered as a fixed price based 50% on contribution to network system 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.

3.3 Distribution prices for Individually Assessed non-standard contracts

IND 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 ORC, and the contribution that the installation makes towards network system demand is determined from half hour 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.

Network Waitaki currently has 31 Individually Assessed consumers contributing 15.9% of the total target revenue.

3.4 Volume prices: Standard Consumer Load Groups

Volume prices for standard consumer load groups are based on GXP volumes and individual 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. Night volume prices are lower than day prices to encourage retailers to develop prices that reward consumers for off-peak usage. Volume prices are not adjusted for the 2020/21 pricing period.

3.5 Transmission prices: Standard 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 Network Waitaki 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 currently recovered from Standard consumer load groups as a volume (kWh) price (described in clause 3.4) plus a fixed price.

A rebalancing of the fixed and volume-based components will continue from 1 April 2020 to recover costs in proportion to the capacity being made available to load groups.

3.6 Transmission prices for Individually Assessed non-standard contracts

Transpower's Connection Charges and Network Waitaki's Avoided Transmission Costs are recovered by means of a fixed price based on the capacity (kVA) requirements of each consumer at the time of the investment, and adjusted annually in accordance with the approved price adjustment.

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

4.1 General

Losses represent the percentage of electricity entering the network that is either consumed or lost in the delivery process between the Grid Exit Points and the consumer installation metering points, 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 consumers' installations is therefore after losses and must be multiplied by the overall "loss factor" to determine each energy retailer's purchase quantities at each GXP.

4.2 Low Voltage and High Voltage connection

Most consumers take supply and are metered at low voltage (400/230V) and the loss factor applied to these sites must account for distribution transformer and low voltage reticulation losses. A small group of consumers 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

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

Network Waitaki has 107 solar roof top generation plants, 3 hydro plant and 1 wind generator connected to and injecting into the network. This total of 111 connections equates to approximately 0.9% of all connections to the network. Generation from these DG connections make up about 0.25% of total energy consumption on the network.

Network Waitaki offers connection to DG by the standard terms defined by the Electricity Authority. The standard terms are easy to understand and are consistent with most distributors across the country. These terms can be found on the DG page on Network Waitaki's website: www.networkwaitaki.co.nz.

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 sufficiently large distributed generation consumers located in an area of strategic importance where a contribution to peak demand reduction could be deemed useful, NWL has up to now considered making payments to a DG consumer for the amount it reduces Network Waitaki's Regional Co-Incident Peak Demand (RCPD). However, any connections and payments must be done in accordance with Part 6 of the Electricity Industry Participation Code 2010 administered by the Electricity Authority which stipulates that only approved DG connections will be eligible to receive Avoided Cost of Transmission (ACOT) payments.

6 GLOSSARY

ADMD	After Diversity Maximum Demand
AMP	Asset Management Plan
EA	Electricity Authority
EDB	Electricity Distribution Business
GXP	Grid Exit Point
ICP	Interconnected Control Point
IND	Individually Assessed non-standard contracts
kVA	kilo Volt Ampere
kW	kilo Watt
kWh	kilo Watt hour
LV	Low Voltage
ODV	Optimised Deprival Value
ORC	Optimised Replacement Cost
RCPD	Regional Coincident Peak Demand
RL	Residential Low User
LFC Regulations	Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004
RLC	Residential Low User Controlled
RLU	Residential Low User Uncontrolled
WPT	Waitaki Power Trust

7 APPENDIX 1 – DELIVERY PRICE SCHEDULE

DELIVERY PRICE SCHEDULE FOR NETWORK WAITAKI

EFFECTIVE FROM 1 APRIL 2020

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.

			Effective 1 April 2019			Effective 1 April 2020			
Code	**Description**	**Units**	**Distribution**	**Pass-through**	**Delivery Price**	**Distribution**	**Pass-through**	**Delivery Price**	**Number of Consumers**
RESIDENTIAL LOW FIXED CHARGE / Price category code: RL (0 - 15 kVA)									
RLU	Daily Price - Uncontrolled	$/connection/day	0.0949	0.0546	**0.1495**	0.0952	0.0548	**0.1500**	753
RLC	Daily Price - Controlled	$/connection/day	0.0949	0.0546	**0.1495**	0.0952	0.0548	**0.1500**	4,433
RLUD	Day Volume - Uncontrolled	$/kWh	0.08637	0.03795	**0.12432**	0.09024	0.03795	**0.12819**	
RLCD	Day Volume - Controlled	$/kWh	0.08637	0.02494	**0.11131**	0.09024	0.02494	**0.11518**	
RLUN	Night Volume - Uncontrolled	$/kWh	0.00872	0.01363	**0.02235**	0.00911	0.01363	**0.02274**	
RLCN	Night Volume - Controlled	$/kWh	0.00872	0.00257	**0.01129**	0.00911	0.00257	**0.01168**	
GENERAL CONNECTIONS / Price category code: GC									
15U	0 - 15kVA - Uncontrolled	$/connection/day	0.8128	0.3104	**1.1232**	0.8964	0.3112	**1.2076**	1,642
15C	0 - 15kVA - Controlled	$/connection/day	0.6762	0.1122	**0.7884**	0.6897	0.1125	**0.8022**	4,147
30U	16 - 30kVA - Uncontrolled	$/connection/day	0.9580	0.5822	**1.5402**	1.0313	0.5838	**1.6151**	462
30C	16 - 30kVA - Controlled	$/connection/day	0.8214	0.3671	**1.1885**	0.8842	0.3681	**1.2523**	208
50U	31 - 50kVA - Uncontrolled	$/connection/day	1.6212	0.6625	**2.2837**	1.7453	0.6643	**2.4096**	622
50C	31 - 50kVA - Controlled	$/connection/day	1.4846	0.4424	**1.9270**	1.5982	0.4436	**2.0418**	158
100	51 - 100kVA	$/connection/day	3.0925	0.8506	**3.9431**	3.3292	0.8529	**4.1821**	350
200	101 - 200kVA	$/connection/day	5.9304	1.4257	**7.3561**	6.3843	1.4296	**7.8139**	127
300	201 - 300kVA	$/connection/day	8.4038	1.8128	**10.2166**	9.0470	1.8178	**10.8648**	53
500	301 - 500kVA	$/connection/day	21.0054	2.6756	**23.6810**	22.6130	2.6829	**25.2959**	22
750	501 - 750kVA	$/connection/day	26.3470	3.8812	**30.2282**	28.3635	3.8918	**32.2553**	10
WATAD	Day volume	$/kWh	0.05737	0.02239	**0.07976**	0.05737	0.02239	**0.07976**	
WATAN	Night volume	$/kWh	0.00638	0.00243	**0.00881**	0.00638	0.00243	**0.00881**	
LARGE COMMERCIAL / Price category code: LC (750 kVA +)									
LC	Daily fixed price	$/connection/day	2.6238	0.0000	**2.6238**	2.8246	0.0000	**2.8246**	0
LCCAP	Daily capacity price	$/kVA/day	0.1167	0.0703	**0.1870**	0.1256	0.0705	**0.1961**	
LCDEM	Daily demand price	$/kW/day	0.1361	0.2281	**0.3642**	0.1465	0.2287	**0.3752**	
INDIVIDUALLY ASSESSED / Price category code: IND									
IND									31

NOTES:

All Charges are GST exclusive. GST is payable in addition to the charges.

The price movement amounts to an average overall 1.6% increase mainly as a result of increased operational and compliance costs, along with costs associated with capital expenditure in our assets. This increase is necessary to allow Network Waitaki to operate a safe and reliable electricity network through appropriate levels of investment. Consumers will be impacted differently based on their usage patterns as the increase has been applied to the fixed ($/connection/day) distribution component of standard price plans and to the volume components of Residential Low Fixed Charge price plans. More information on how prices are determined is published in our pricing methodology which is available on the Network Waitaki website (www.networkwaitaki.co.nz).

Eligibility for the "Residential Low Fixed Charge" price category requires that the premises must be the consumer's principal place of residence as defined in the Electricity Industry Act 2010.

Volume (kWh) prices are based on volumes metered at the Grid Exit Points supplying the network. All metered loads should be grossed up using the appropriate loss factor to arrive at the chargeable GXP volume. Different rates are applied for "day volume" (07:00 a.m. until 11:00 p.m.) and for "night volume" (11:00 p.m. until 07:00 a.m. the next morning).

Large Commercial (LC) load group with connections higher than 750kVA: Daily capacity prices are based on contracted capacity and daily demand prices are applied to an assessed demand level.

Distribution and Pass-through 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 1/365th of the annual amount due, or 1/366th during a financial year that includes a leap day.

Pass-through prices consist of transmission prices, rates and regulatory levies.

Network Waitaki's **annual discount** to consumers is comprised of a fixed and variable component. The amount of the variable component is determined taking the discount formula into account and the result will be announced in March 2020. The discount formula is available on Network Waitaki's website.

Discounts will be payable in March or April 2020 based on the **number of days that the installation has been connected** within a specific load group during the preceding 12 months. The discount methodology is available on the Network Waitaki website.

Network Waitaki
Powering North Otago

8 APPENDIX 2 – COMPLIANCE TO EA PRINCIPLES

This section demonstrates the extent to which Network Waitaki's pricing methodology is consistent with the Electricity Authority's pricing principles[3].

Pricing Principles	Network Waitaki alignment to EA principles
(a) Prices are to signal the economic costs of service provision, by:	
(i) being subsidy free (equal to or greater than avoidable costs, and less than or equal to standalone costs);	Consumers are allocated to load groups in line with their capacity requirements. The price plan for each load group recovers revenue from that group at a cost that is reasonably close to the cost of supplying each load group as measured by the capacity each group requires. Capacity-based fixed prices and volume prices (that are avoidable) will be re-balanced over time which will provide an even stronger cost-signal that will over time increasingly ensure prices remain between avoidable and standalone costs for most consumers. Furthermore, in light of the fact that Network Waitaki does not differentiate among consumers in terms of location or distance from supply points, consumers that would otherwise have been faced with very high network cost as a result of being for example located in a far off rural area will be faced with the average supply cost to the particular size load group.
(ii) reflecting the impacts of network use on economic costs;	By gradually correcting the imbalance between capacity-based fixed and volume pricing consumers are presented with a 'price signal' that more accurately conveys the cost of electricity transportation. A fixed price based on contracted capacity allows the consumer to contract for a properly sized connection, and similarly allows Network Waitaki to provide suitable assets to honour the contract. Furthermore, the day/night volume prices encourage consumers to move load to night time where possible. Network Waitaki also offer an incentive to consumers that choose controlled load price plans which further benefits the network as it provides an ability to move load

[3] Electricity Authority (4 June 2019). More efficient distribution network pricing – principles and practice.

Pricing Principles	Network Waitaki alignment to EA principles
	whenever it is required to ensure supply stability and reliability, and to manage GXP maximum demand.
(iii) reflecting differences in network service provided to (or by) consumers; and	Network Waitaki offers discounted prices for consumer load groups (up to 50kVA price plans) who opt for controlled prices. Both distribution and transmission fixed prices are lower for controlled prices compared to the equivalent uncontrolled prices to signal the benefits of load control. In the case of transmission it signals the clear and direct impact that load control has on reducing transmission prices. 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 and potential to defer transmission and distribution capacity upgrades.
(iv) encouraging efficient network alternatives	In gradually moving to a more cost-reflective pricing structure, that better reflect the underlying cost structure through capacity-based fixed prices, consumers will be encouraged to consider efficient network alternatives where it makes economic sense. Network Waitaki has cases of consumers that have decided to move to more efficient alternatives after the 2019-2020 price adjustment that consisted of rebalancing of capacity-based fixed prices and volume prices. For example, consumers that were connected to capacity sizes in excess of their demand requirements as well as investment in distributed generation. Furthermore, consumers can opt for demand response supply through controlled load prices which is significantly lower than uncontrolled prices.
(b) Where prices that signal economic costs would under-recover target revenues, the shortfall should be made up by prices that least distort network use.	
Except for RL customers, Network Waitaki does not differentiate between consumer types on standard contracts. All consumers on a particular load group pay the same capacity-based fixed and volume prices. Network Waitaki contends, however, that by rebalancing its prices to reflect the cost of the capacity required it is to some extent discriminating between differences in end consumers' willingness to pay. A consumer has a choice of different capacities.	

Pricing Principles	Network Waitaki alignment to EA principles
For IND consumers, however, where the transaction costs of developing non-standard arrangements are small in relation to the value of the network service, 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. In time, through reflecting the business cost structure and timeframes in pricing and not be subject to uncontrollable variables, such as rainfall, under-recovery of target revenues should be the exception.	
(c) Prices should be responsive to the requirements and circumstances of end users by allowing negotiation to:	
(i) reflect the economic value of services; and	Network Waitaki does have IND consumers, that were considered and negotiated on a case-by-case basis according to the specific needs of the consumer. Pricing was tailored to reflect the cost to supply the unique needs of the consumer. However, no fixed discount policy is applied and care is taken to ensure prices are above avoidable cost and below stand-alone cost. Network Waitaki has 31 customers on IND price plans. This is high compared to most networks. For historic reasons, some customers are on these contracts when other very similar consumers are on standard contracts. Network Waitaki will be reviewing IND contracts as part of its overall price structure realignment process. For Standard Contract consumers Network Waitaki follows this principle by working towards the point that at a load group level, prices faced by consumers reflect the true economic cost of their service provision. Each load group utilises some or all Network Waitaki'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 load density, using the capacity (kVA) requirements of each load group as the indicator of load density.
(ii) enable price/quality trade-offs	Network Waitaki is 100% owned by the Waitaki Power Trust (WPT). Trustees of the WPT represent the interests of consumers and engage with Network Waitaki to ensure the company makes appropriate price/quality trade-offs. In addition, for IND consumers, through a process of one-to-one consultation, Network Waitaki has in the past negotiated a service tailored to the requirements of the

Pricing Principles	Network Waitaki alignment to EA principles
	individual consumer, making a price-quality trade-off appropriate for that consumer. As part of its price structure realignment Network Waitaki will converge IND consumers with standard load group categories as far as possible to ensure equitable treatment of similar customers. IND assessed price plans with quality aspects will be available in future but only for those consumers that do not fit into any of the standard load groups, and have special and unique requirements.
(d) Development of prices should be transparent and have regard to transaction costs, consumer impacts, and uptake incentives.	
The pricing methodology of Network Waitaki is transparent. In terms of the strategic change in pricing, Network Waitaki is in the process of reviewing its price structures. Price structure realignment has occurred at a very slow pace over the past few years with no change to current price structures itself, i.e. capacity-based fixed prices and day/night volume-based prices are still in place. Only the magnitude of the components has changed over time and will continue over the next five years. Changes to prices have been such that consumers have not experienced major impacts and for those that have faced increases above a certain threshold Network Waitaki has engaged consumers. Furthermore, in rebalancing fixed and variable components Network Waitaki had due regard to the impact on consumers and the fact that a consumer has options to move to another price plan. Through its ownership by the WPT, and the regular engagement with Trustees of the WPT (who represent the interests of consumers), Network Waitaki ensures that its prices are transparent to the WPT and have full regard to the impact they have on consumers. If and prior to Network Waitaki changing the structure of its prices, it will consult with retailers on its network and take on-board any feedback from them on the proposed new price structures. Network Waitaki is very cognisant of the impact of transaction costs on stakeholders and will consider this when making any big changes to price structures. Network Waitaki's prices do not favour one retailer over another. The pricing methodology and applicable prices are identical across all retailers, with no discrimination in regard to available price plan options, applicable prices, calculation methodology, or discounts. The intent is to keep prices structures simplistic and understandable while offering choices to consumers. Network Waitaki has always viewed its GXP billing process as simplistic and the least costly for all stakeholders. Any potential changes to billing processes will be carefully considered prior to making any changes. In reviewing its prices Network Waitaki will do so with due regard to the impact on and expectations of stakeholders regarding any price changes. Any rebalancing of current	

Pricing Principles	Network Waitaki alignment to EA principles
and future price design is and will be accompanied by careful analysis of bill impacts on all consumers. Engagement with stakeholders is essential where changes to price structures are considered. This ensure impacts on retailers and consumers are well understood, e.g. standardisation across networks, business process preferences, communication and billing arrangements. As Network Waitaki is not considering structural changes to its current price structures assignment policies such as opt-in, opt-out and event-based will not be that relevant but will be considered throughout the price structure realignment process. Currently, the view is to transition to more cost-reflective prices through Network Waitaki's current price structures by following a phased approach with small rebalancing steps over time.	

9 APPENDIX 3 – INFORMATION DISCLOSURE COMPLIANCE CHECKLIST

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
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;	Appendix 1 for changes to prices. 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 1.3 for an explanation of Network Waitaki's Consumer Engagement.
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.	Paragraph 1.4. There have been no material changes to the pricing methodology since publication of the last methodology in 2018.
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;	Paragraph 3 explain how prices were set for each consumer group, for both standard and non-standard contracts.

Clause in Determination	Reference in Pricing Methodology
	Paragraphs 2.3 and 2.4 provide 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 pricing principles;	Appendix 2 details the consistency of Network Waitaki's pricing methodology with the Electricity Authority Pricing Principles and Information Disclosure Guidelines.
(3) State the target revenue expected to be collected for the disclosure year to which the pricing methodology applies;	Paragraph 2.3 shows the target revenue to be collected in the disclosure year 2020-2021.
(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;	Paragraph 2.3 shows the target revenue to be collected in the disclosure year 2020-2021.
(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 Network Waitaki 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 2 in Appendix 1 provides the details.
(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, 2.4 and 2.5.
(8) State the proportion of target revenue (if applicable) that is collected through each price component as publicly disclosed under clause 2.4.18.	Network Waitaki's revenue is targeted across consumer groups as

Clause in Determination	Reference in Pricing Methodology
	stipulated in paragraph 2.5.
2.4.4 Every disclosure under clause 2.4.1 above must, if the EDB has a pricing strategy-	Clause 6 and the "living" roadmap in appendix that outlines Network Waitaki's thinking on price reform.
(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;	Briefly outlined as per above.
(2) Explain how and why prices for each consumer group are expected to change as a result of the pricing strategy;	Briefly outlined as per 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.
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 31 consumers on non-standard contracts. The value of target revenue from non-standard contracts is depicted in **Allocati** **Small Consumers**: RLU, **Medium Consumers**: 30U **Large Consumers**: 100, 2 **IND**: Individually assessed **Total Revenue Requireme** Table 5, paragraphs 2.5, 3.3 and 3.6.

Clause in Determination	Reference in Pricing Methodology
(b) how the EDB determines whether to use a non-standard contract, including any criteria used;	Network Waitaki has several historic non-standard contracts. However, it will only consider non-standard contracts to new customers when there are particular and compelling reasons for doing so.
(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 Network Waitaki 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 the-	Paragraph 5.
(a) prices; and	Paragraph 5.
(b) value, structure and rationale for any payments to the owner of the distributed generation	Paragraph 5.

10 APPENDIX 4: NETWORK WAITAKI PRICING REFORM ROADMAP AND PLAN

The purpose of the "living" roadmap and pricing reform plan is to set out our current plan of action to achieve a durable pricing structure for Network Waitaki, reflecting the service it delivers and the business' cost structure, while allowing sufficient flexibility to adapt to imminent regulatory developments such as phasing-out of the LFC Regulations and potential changes to the Transmission Pricing Methodology.

	NETWORK WAITAKI PRICING REFORM ROADMAP
	NETWORK WAITAKI PRICING REFORM ROADMAP
1	**CONSIDER PRICE STRUCTURE OPTIONS**
1.1	Analyse current price structure and impacts
1.2	Identify preferred price structures
1.3	Identify challenges with preferred Price Structures
1.4	Identify measures to overcome challenges of preferred Price Structures
1.5	Review cost allocation methodology
2	**APPROVED END-STATE PRICE STRUCTURE**
2.1	Annual rebalancing of current fixed (capacity-based) and volume prices
2.2	Investigate low usage connections / possible separation of irrigation connections
2.3	Continuously investigate impacts and mitigate potential price shocks on consumers
2.4	Consider and accommodate regulatory developments
2.5	Cost/benefit analysis of any price structure changes
3	**CONSULTATION / COMMUNICATION**
3.1	Development of communication strategy
3.2	Consultation on preferred price structures if different from current price structures
3.3	Trialling of price structures where required
3.4	Analyse results of trials as applicable.
3.5	Make changes to price structures where necessary.
3.6	Communication with consumers facing high impacts
3.7	Communication of reformed price structures where applicable
4	**ROLL-OUT OF PRICE STRUCTURES**
4.1	Identify risks and risk mitigation actions
4.2	Notification of Price Structures to customers in line with regulatory requirements
4.3	Implementation
5	**ONGOING MONITORING**

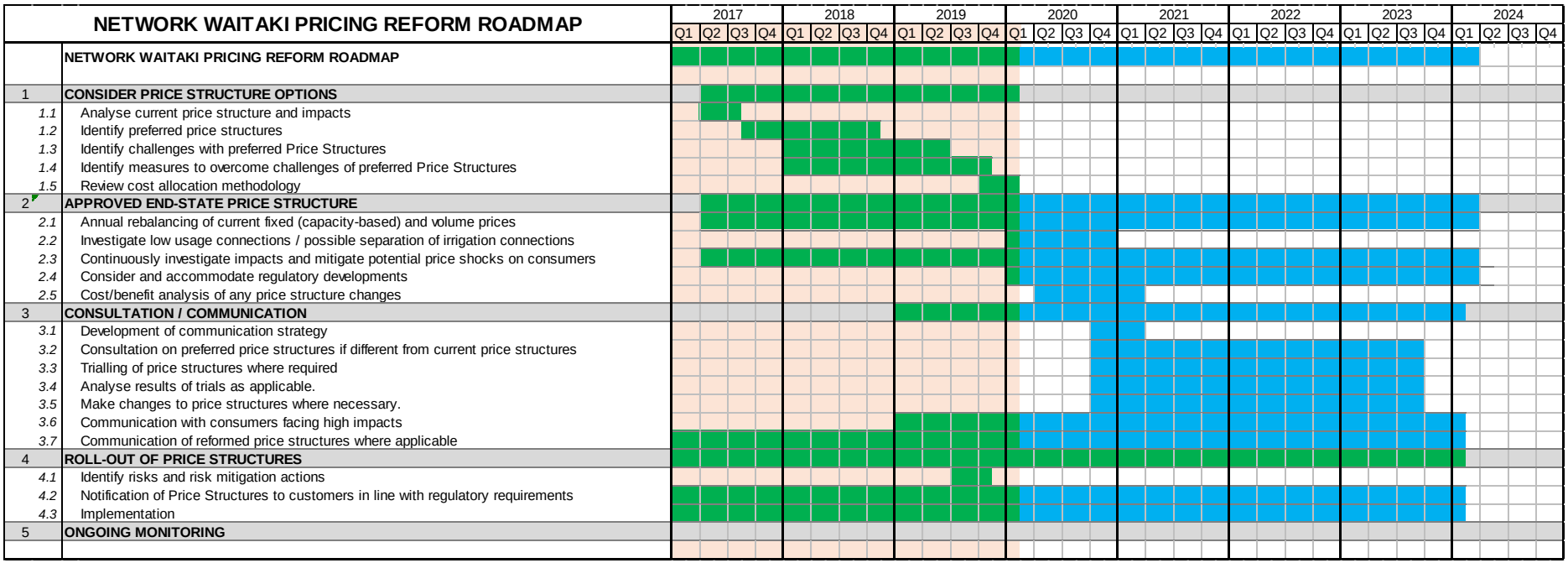


Table 7: Network Waitaki Pricing Reform Roadmap

Network Waitaki pricing reform plan

	Strategic Aim	Actions	Potential area of change	Estimated Time line	Resource
1.	**Reflect the cost of service more accurately through re-balancing fixed and volume-based components of electricity distribution prices.**	Annual re-balancing of fixed and volume-based price components: • Applying incremental re-balancing to current price structures in accordance with revenue requirement. • Applying re-balancing to final price structures once approved.	Change from current mainly capacity, day/night energy structures to approved price structures.	Annual incremental re-balancing (have commenced on 1 April 2017) Full implementation: 1 April 2024	Network Waitaki and expert support where required
	• Determine optimal fixed/volume-based pricing balance	Investigate the revenue risk profile for NWL in moving towards different price structure options for the mass-market through:	Depending on the outcome of the investigation NWL might decide on a slightly less cost-reflective fixed / volume-based price structure		
		(a) Separation of consumers into irrigation (current risk) and other consumer groups (future risk) as this could impact on the pace of price structure reform This will include: o de-coupling of residential/non-residential/irrigation consumers. o Investigation into possibility and impact of moving from GXP to ICP billing. o Consultation with retailers	Consideration of separation of irrigation from other load groups. Currently price plans are based on load group, irrespective of the type of consumers in each load group. Could possibly include changes from GXP billing to ICP billing	15 February 2020 30 May 2020 30 November 2020	
		(b) In-depth investigation into the profiles of the high number of low usage connections to determine the type of consumers, where they are and why they are affected and whether they are on appropriate price plans	Allocation of consumers to appropriate price plans	30 May 2020	
	• Once the optimal fixed/volume-based price balance has	A comprehensive clean-up of small residential classifications ahead of any	Allocation of consumers to appropriate price plans	30 May 2020	

	Strategic Aim	Actions	Potential area of change	Estimated Time line	Resource
	been determined, limit negative impacts of price re-balancing on consumers while remaining revenue neutral	significant price structural changes to lower the impact at the fringes			
		Engage with retailers in the event of incorrect classified consumers	Allocation of consumers to appropriate price plans	30 May 2020	
		Understand the implications for low and high usage consumers	Smooth re-balancing over a ten-year period	30 May 2020	
		Investigate and propose future alternative options for consumers currently on LFC regulations (e.g. viability of an 8kVA capacity option).	Variable installed capacity-based pricing	30 May 2020	
2.	**Approved end-state price structure components (e.g. Capacity, Time of Use, Demand)** **(Current thinking is to move to installed capacity-based pricing and keep current day/night volume structure)**	Consideration of the outcome of MBIE view on phasing-out of LFC regulations.	Change to LFC price structures by possibly making more capacity bands available.	Ongoing through 30 June 2020	Network Waitaki and expert peer review
		Once the ENA menu of pricing options is available, understand and test the applicability of these options for NWL's circumstances. Especially in view of the		Ongoing through 31 August 2020	

	Strategic Aim	Actions	Potential area of change	Estimated Time line	Resource
		current lack of access to smart meter data and functionality			
		Consideration of Transmission Pricing Methodology	Possible change in the way Transmission prices is passed through	1 April 2024	
		Investigate load control incentive options, e.g. load control rebate		30 September 2020	
		Cost/benefit analysis of changes to price structures in terms of: • Regulatory compliance • Billing • Systems • Data availability and privacy • Human Resources		Ongoing through 31 October 2020	
		Trialling of end-state price structures		1 April 2022	
		Full implementation of end-state price structures, including continuation of rebalancing.	Smoothing to limit price shocks	1 April 2024	
3.	**Communication Engagement Strategy**	Ensure alignment with ENA Distribution pricing communication/marketing strategy		31 October 2020	Communication Expert Network Waitaki
		Development of a comprehensive customer engagement strategy that includes: • Consultation with retailers in accordance with regulatory timelines • Consultation with consumers		Ongoing up to 31 January 2024	

Table 8: Network Waitaki Pricing Reform plan